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Editorial

This edition of NIU *Journal of Social Sciences* focuses on Development Administration, Human Reseource Management, Educational Management, Social Psycholophy and Literary Studies.

The first part of the Journal addresses issues in Development Administration such as Democratic Consolidation, Sustainable Development, Rural Development and Good Governanace. It is argued in one of the papers that Nigeria needs more responsive and inclusive governance model by promoting the decentralization of power and giving local communities more authority over resources. It is therefore, suggested amongst others, that Nigeria may move toward a future characterized by greater justice and prosperity by tearing down the legacy of the colonial era and supporting grassroots efforts. Restructuring appears to be a concrete way to fulfill the dreams of the people as the country struggles with its developmental obstacles.

Papers in the second section are on Human Research Management. One of the papers in this Section reveals that there are gaps in regulatory oversight and enforcement. Inadequate monitoring and supervision can allow malpractices to go unchecked. Insufficient transparency in reporting practices was also identified to hampers stakeholders' ability to assess the performance and integrity of pension fund administrators. It is therefore, recommended that government should empower Pension Commission to summon the Chairmen, Directors or Managers of non-compliant employers and impose severe sanctions on them. Above all, Pension Commission should embrace high level standard of corporate governance. While tapping into global expertise for training and education of staff, systems development, technology and information communication technology.

Using Ijebu Metropolis of Ogun State, Nigeria as a case study, one the papers, in the third section on Educational Management, examines Secondary School Students' Attitude Towards Gender Stereotype. It consequently, recommends that teacher training needs to be conducted in a way that will allow for the promotion of necessary awareness and knowledge about how to reduce gender-stereotypes through classroom teaching and learning.

Papers in the fourth section are on Social Psychology. It is revealed in one of the papers in this section that married men's perceptions and knowledge of family planning were significantly influenced by Family Planning Radio Health Messages, but not their attitudes towards the practice. The paper therefore, recommends that Family Planning Radio Health Messages should be refocused to target men not just women alone since men have the headship position to make some decisions in many families in the South-Western part of Nigeria.

In last section on Literary Studies, one of the papers examines the extent to which the term "Choreoclecy" can really fare where it concerns esoterically inclined African worship dances with propensity for trance. Using Descriptive Analytical Approach, the study revealed that this term is articulated through the basic principles and formulae that are required to aid easy dissection and analysis of the inherent compositional structures in most worship dances.

On the whole, this issue of *NIU Journal of Social Sciences* features many interesting research papers. Some of these papers are empirical in nature while others have theoretical base. Each of them focuses on one specific social and management problem or the other; trying to proffer solutions to them. Readers are therefore advised to make proper use of the ideas presented by the various authors.

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Part One
Development Administration

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Nigerian Democracy and Elusive Development: Restructuring as a Panacea

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Abstract. Nigeria's political landscape is still shaped by the after effects of colonialism and internal conflict, which influence the country's path toward democracy. Although Nigeria's 1999 democratic transition was met with great anticipation, most Nigerians have not yet felt the benefits of improved governance and economic progress. This essay explores obstacles to Nigeria's development, including bureaucratic lethargy, economic inequality, and corruption. Drawing on academic discourse, this study examines the fundamental principles of democracy and development and highlights the importance of economic welfare and equality within democratic frameworks. A close examination of the available literature sheds light on the harsh realities of Nigeria's developmental path. The main contention is that reorganizing Nigeria's political and economic structures provides a solution to deal with these issues. This study supports a more responsive and inclusive governance model by promoting the decentralization of power and giving local communities more authority over resources. This lays a roadmap for attaining sustainable development and promoting shared prosperity through practical policy suggestions and constitutional modifications. This study emphasizes the importance of re-evaluating Nigeria's democratic experiment from a restructuring perspective. Nigeria may move toward a future characterized by greater justice and prosperity by tearing down the legacy of the colonial era and supporting grassroots efforts. Restructuring appears to be a concrete way to fulfill the dreams of the people as the country struggles with its developmental obstacles.

Keywords: Economic progress, democracy, development, restructuring.

1. Introduction

Nigeria's 1999 democratic transition has been a watershed in history. Nigerians had great expectations for a new era of governance marked by accountability, openness, and socioeconomic advancement after years of military dictatorship marred by corruption, human rights violation, economic mismanagement and violence (Abdulrasheed 2021; Akinyetun, 2021a; Allen 2024). It was expected that major reforms addressing long-standing problems and improving the people's standard of living would accompany the restoration of civilian authority. This is because democratic governance prioritizes people's needs and rights, promoting inclusive growth and fair resource distribution. However, even after this shift more than 20 years ago, Nigeria still faces several obstacles that prevents the realization of these goals. The country continues to grapple with difficulties including poverty, inequality, unemployment, corruption, instability, and inadequate infrastructure, despite having an abundance of natural and human resources (Ata-Agboni et al., 2024). Millions of Nigerians struggle to meet their fundamental requirements and reach their full potential, and the divide between the privileged and marginalized continues to be glaring. As democracy has not yet completely delivered on its promises, Nigeria's democratic journey needs to be continuously re-evaluated, and new ways to develop and govern explored.

The marginalization of vulnerable groups, economic mismanagement, and elite corruption are some of the long-standing issues confronting Nigerian democracy. Elite corruption remains pervasive, with politicians and other privileged individuals using their positions for personal advantage and misusing public funds meant for development and basic services (Fisayo et al., 2023). This widespread corruption weakens the

rule of law, erodes public confidence in democratic institutions, and feeds inequality and the poverty cycle. The detrimental impacts of corruption on Nigeria's political and economic landscapes have been well-documented in the literature. Chidi et al (2023) highlight the role of corruption in aggravating poverty, degrading public services, and promoting social unrest. Nigeria's battle with economic mismanagement has made it difficult for it to use its wealth of resources for inclusive prosperity. Nigeria's abundant oil reserves has been stifled by glaring poverty, underdevelopment, and a growing population (Akanle & Shittu, 2022). The structural hurdles that Nigeria's economy faces have been examined by scholars like Collier & Goderis (2007) and Harrison (2022), who have identified a number of major obstacles to sustainable development, including an over reliance on oil revenue, inadequate infrastructure, and weak institutional ability.

Nigeria's complicated ethno-regional dynamics have exacerbated political instability and social differences, making democratic consolidation even more challenging. Local communities have been disadvantaged and conflicts among marginalized groups have been exacerbated by the federal government's centralization of power (Olumba, 2022). Nigeria's federalism and ethno-political dynamics have been examined by scholars, such as Rotimi Suberu and Richard Joseph, who have highlighted the necessity of inclusive governance structures that can meet the varied interests of the country's multi-ethnic population (Erubami, 2018). In light of these difficulties, restructuring is a strong alternative to address Nigeria's developmental problems. Restructuring entails a comprehensive reorganization of the nation's political and economic structure with the goals of strengthening fiscal autonomy, fostering equitable development, and decentralizing power (Baridam et al., 2022).

Restructuring empowers communities, encourages participatory governance, and guarantees accountability at the local level by giving states and local governments greater authority. Resource control measures provide states with more authority over their natural resources, allowing them to use the money generated for regional development, and lessen their reliance on federal funding (Yu et al., 2023). Institutional reforms provide an atmosphere favorable for social progress and sustainable development by bolstering democratic governance, advancing transparency, and improving inclusivity. Through the integration of theoretical knowledge and literature review, this study presents a thorough examination of restructuring as a means of advancing Nigeria's democratic transition and socioeconomic advancement. The ultimate objective is to add to the body of knowledge regarding Nigeria's democratic development, while providing practical suggestions for resolving the urgent issues faced by the country.

1.1 Methodology

Through a qualitative analysis of research on democracy, development and restructuring, this study examines Nigeria's democratic journey and the structural barriers to its development. It contextualizes Nigeria's democratic journey and critically examines various academic perspectives on democracy and development. This study identifies patterns, paradoxes, and complexities in Nigeria's political and economic environments through a qualitative analysis. It examines trends across time and finds connections between variables. This study used primary and secondary sources, including journal articles, government reports, policy documents, and international organizations, to gather, synthesize, and evaluate data, ensuring the reliability and accuracy of the analysis.

1.2 Theoretical Underpinning

The idea of institutional economics provides a useful theoretical framework for analyzing the connection between restructuring, democratic government, and economic growth in Nigeria. Institutional economics focuses on how formal laws, unwritten conventions, and governance frameworks influence economic activities and create a community (Iskandar et al. 2022). Using this approach, one can examine how restructuring initiatives affect institutional settings, which in turn affect democratic governance and economic outcomes. The notions of 'institutional quality' and 'institutional change' can be used within the institutional economics framework to evaluate how restructuring has affected Nigeria's political and economic environments (Abere & Akinbobola, 2020). Institutional quality refers to the efficacy, efficiency, and integrity of formal and informal institutions such as governmental agencies, legal systems, and social standards (Nguyen et al., 2023). On the other hand, intentional attempts to reorganize or modify existing institutions to enhance their functionality and align them with more general development goals are referred to as institutional transformation (Waddock et al., 2022).

This theoretical framework can be used to investigate how decentralization initiatives impact institutional quality and change in Nigeria through a restructuring analysis. Decentralization efforts, such as seeking to

transfer authority to subnational entities, may result in modifications to the allocation of power, procedures for accountability, and methods used to provide services (Atisa et al., 2021). Restructuring may improve institutional quality by encouraging openness, responsiveness, and involvement of local citizens through decentralizing governance systems. Moreover, restructuring can promote institutional change by questioning vested interests, power structures and governance procedures. Public institutions' restructuring efforts can promote innovation, competition, and accountability by introducing new laws, regulations, and decision-making procedures (Adekoya 2023). However, societal acceptance, administrative ability, and political will are only a few variables that affect the effectiveness of restructuring interventions and the success of institutional reform will ultimately be.

By analyzing shifts in institutional quality metrics, such as the rule of law, efficacy of government, and corruption control, academics can evaluate the effects of restructuring on democratic governance and economic growth through the prism of institutional economics.

Democracy and development are theoretically linked. Research has focused on the theoretical relationship between democracy and development, with researchers such as Francis Fukuyama providing insightful analyses of the connection between political rule and socioeconomic advancement. In his ground breaking book "The end of history and the last man", Fukuyama argues that liberal democracy is the pinnacle of human conceptual development and provides the best conditions for both political freedom and economic success (Fukuyama, 2006; Sibuh, 2021). Fukuyama contends that democratic government offers the institutional framework necessary for upholding social stability, promoting innovation, and safeguarding individual rights – all of which are critical for long-term economic development and prosperity. He contends that democracies are more suited to controlling social unrest, advancing the rule of law, and offering incentives to encourage investment and entrepreneurship (Fukuyama, 2018). Fukuyama's viewpoint emphasizes the fundamental relationship between political liberties and economic results, arguing that a democratic government is both a political aspiration and necessary economic condition for attaining long-term progress (Onyango, 2023).

Other scholars, on the other hand, emphasize the significance of context-specific elements and historical legacies in his view of the connection between democracy and growth. Gil-Garcia et al. (2020) recognize that enhanced accountability, openness, and public involvement are some of the ways democratic governments may promote economic development. Oduor (2022) drew attention to the difficulties and shades of democratization in various postcolonial nations, such as those in Africa. Clark (2019) contend that civilizations must naturally develop democracy from the inside, taking into consideration their distinct historical, cultural, and socioeconomic conditions. Democracy cannot be imposed on them. In contrast to the one-size-fits-all methods imposed by others, Omotola (2021) highlights the necessity of inclusive and participatory democratic processes that prioritize local ownership, institution building, and consensus building.

2. Democracy and Development: The Nexus

Scholars have studied and debated the intricate relationship between political governance and socioeconomic advancement in terms of democracy and development for many years. A basic question that runs across this discussion is: How much can democracy promote or impede development, and how can development promote democracy? Democracy proponents contend that political involvement and freedom are necessary preconditions for sustained development (Hamladji, 2024). Scholars such as Robert Dahl and Amartya Sen have highlighted the inherent value of democracy as a framework that supports human potential, social fairness, and individual liberty. Sen (1999) contends that democracy offers the institutional framework necessary for people to express their concerns, hold government responsibility, and influence public decisions in a manner that prioritizes the welfare of all people. Dahl also argues that democratic governments, which are marked by free and fair elections, the rule of law, and respect for individual liberties, make it easier to resolve disputes amicably, foster creativity, and strengthen social cohesion, all of which are favorable to the expansion and advancement of the economy (Dahl, 1989).

Opponents of democracy contend that the quest for economic growth might call for authoritarian policies that curtail political liberties and jeopardize democratic institutions. To promote rapid industrialization and modernization, scholars such as Lee Kuan Yew and Fareed Zakaria have argued for the "developmental state" paradigm, in which a powerful, centralized government has strict control over public resources and economic policy (Moon & Moon, 2020). This viewpoint holds that prioritizing economic growth over political liberties has allowed nations

such as China and Singapore to achieve exceptional economic success, suggesting that democracy may not be a requirement for prosperity.

However, research indicates that democracy and development are linked processes that reinforce one another rather than being mutually exclusive, with each being strengthened and aided by advancements in the other. Even when used as a stand-in for democracy, good governance, which includes important institutions, procedures, citizen voice, participation, and inclusion, is crucial to developing and fostering a democratic culture (United Nations, 2013). As the United Nations (2013) further argues, there is no evidence that development requires the loss of democracy or that autocracies focused on development are more successful over the long term. When combined with state capabilities such as safety, security, the rule of law, access to justice, healthcare, and education, core characteristics such as inclusion, participation, responsiveness to citizen demands, and accountability can directly or indirectly contribute to development. Meanwhile, poverty, hunger, and illness can make it more difficult for people to exercise their civil and political rights, which erodes their confidence in established democratic systems (United Nations, 2013).

Mohammadi et al. (2023) emphasized the beneficial relationship between democracy and sustained economic growth. They contend that democratic governance fosters investment, entrepreneurship, and innovation – three key drivers of economic development – by upholding political stability, rule of law, and property rights. Cheema (2020) stresses the significance of inclusive institutions and sound governance in promoting sustainable development. They contend that democratic governance, which is marked by open and transparent decision-making procedures, responsible public institutions, and active citizen participation, can contribute to the reduction of corruption, lessening inequality, and the advancement of fair resource distribution, all of which serve to establish the foundation for inclusive growth and human development.

In the Nigerian context, democracy is defined as a form of government marked by political pluralism, free and fair elections, defence of human rights, and public accountability. It is an embodiment of the popular sovereignty theory, which holds that citizens have the power to execute their collective will through representative institutions (Allen, 2024). Following years of military dictatorship, democracy in Nigeria became a ray of hope, with the country's transition to civilian government in 1999, ushering in a new age of democratic governance.

However, for democracy in Nigeria to be truly effective, it must incorporate ideas of socioeconomic justice and go beyond simple procedural rules. The equitable distribution of money, resources, and opportunities within society is referred to as socioeconomic justice (Adagbabiri & Okolie, 2019). This guarantees that every citizen has equal access to their needs, including housing, work, healthcare, and education. Socioeconomic justice is necessary to create an inclusive and equitable society in Nigeria where poverty, inequality, and social exclusion are widespread.

In the Nigerian context, development is the process of raising people's standard of living, enhancing their well-being, and expanding their prospects. This includes social advancement, human development, environmental sustainability, and economic growth (Adejumo, 2020). Real development is multifaceted, tackling the underlying causes of marginalization, poverty, and inequality, while enabling people to reach their full potential as individuals and communities.

Crucially, for development in Nigeria to be significant and long-lasting, socioeconomic justice concepts must serve as the foundation (Lawan, 2011). This means tackling institutional flaws that support social and economic inequality as well as corruption and other structural obstacles to opportunity and inclusion. Prioritizing the needs and goals of marginalized groups such as women, youth, indigenous people, and people with disabilities is also necessary to ensure that nobody is left behind in the pursuit of advancement. Socio-economic justice is closely related to the relationship between democracy and development in Nigeria. Development can be accelerated by a democratic government that respects the values of accountability, openness, and citizen involvement, because it can create inclusive governance, strengthen social cohesiveness, and give marginalized people more influence. Similarly, development plans and initiatives that place a high prioritize socioeconomic fairness can bolster political stability, advance social cohesiveness, and fortify democratic institutions.

3. Impediments to Development in Nigeria

Nigeria faces a complex interplay of political and economic issues ingrained in its social fabric, which impede its progress toward sustainable development. These intricacies have been thoroughly studied by academics who have illuminated the structural impediments militating Nigeria's progress (Dumuje, 2023; Ojo & Clarke, 2021; Torhemen et al., 2023).

Corruption is a recurring subject in the literature as an enduring problem impeding Nigeria's growth trajectory (Nwogbo & Ighodalo, 2021). Many studies have been conducted on the negative impacts of corruption on Nigeria's political and economic domains, highlighting the ways in which corruption skews resource allocation, erodes public trust, sustains inequality and increases the incidence of poverty (Abdulai, 2023; Panao, 2022). According to Akinyetun et al. (2021), poverty remains a major problem in Nigeria and has several facets that go beyond a lack of money. In urban slums and rural areas, a lack of access to work opportunities, education, healthcare, and basic amenities feeds the cycle of poverty and social isolation. Poverty is a major obstacle to Nigeria's development goals, because it increases social inequality, fosters animosity, and erodes social cohesiveness.

Furthermore, the ethno-regional variety of the country seriously hampers its effective administration and national cohesion. Nigeria's federal system was created to serve the country's diverse population, but political elites have frequently used it to maintain patronage networks, heighten tensions between ethnic groups, and obstruct national progress (Okibe 2022). To address structural inequities and promote inclusive governance, proposals for decentralization and the devolution of authority have been proposed (Omondi, 2019). However, reforms have met with resistance from entrenched political interests, underscoring the entrenched character of Nigeria's political elites. According to Akinyetun (2024), identity politics in Nigeria plays a major role in fostering conflict and impeding national unity, especially when seen through the eyes of the youth. Political elites have frequently taken advantage of the nation's varied ethnic and religious makeup to provide rally support along ethnic and religious lines, escalating divisions, and social tensions. Identity-based factors frequently take precedence over meritocracy and justice under various circumstances, including political campaigns, resource distribution, and opportunity access.

Furthermore, Nigeria's extreme reliance on oil earnings makes it more susceptible to external shocks from the outside world and worsens its economic imbalances. Nigeria's inability to convert its abundance of natural resources into broad-based affluence is ascribed to inadequate governance, corruption, and deficiency in economic diversification (Akinyetun et al., 2021). The fluctuating costs of oil worldwide highlight the urgent need for economic change and investment in other industries to promote sustainable growth. Additionally, attempts to encourage economic growth and draw on foreign investment are hampered by Nigeria's institutional flaws, which include judicial inefficiency and lack of enforcement procedures (Yagboyaju & Akinola, 2019). Nigeria faces significant development issues due to the lack of a strong legal framework and impunity, which hinders innovation and encourages a corrupt culture.

Another impediment to development in Nigeria is insecurity. Armed banditry is a serious security threat in Nigeria in addition to police brutality. Particularly in Northern Nigeria, armed banditries have grown to become a profitable criminal industry because of issues such as unemployment, poverty, and poor governance. The proliferation of small arms and light weapons, along with a culture of impunity and inadequate law enforcement, have made it relatively easy for criminal syndicates to operate, causing community instability and undercutting development initiatives (Akinyetun, 2022). Meanwhile, insurgency continues to plague the country. Insurgency is a multifaceted security challenge originating from grievances associated with socioeconomic marginalization and relative hardship. Poverty, unemployment, and government indifference have all contributed to the Boko Haram insurgency in North-eastern Nigeria, providing an environment conducive to radicalization and violence. This insurgency has caused extensive displacement, fatalities, and economic destruction, making peace building and reconciliation efforts extremely difficult in impacted areas (Akinyetun, 2020). Moreover, as Akinyetun (2021b) opines, extra-judicial executions by the police constitute a serious violation of human rights and a sign of structural problems in Nigeria's law enforcement agencies. Against its mandate of fighting violent crimes, the Special Anti-Robbery Squad (SARS) has been linked to multiple incidences of abuse, torture, and extrajudicial killings, particularly involving young Nigerian people. Exacerbating social discontent and undermining efforts towards security and stability, these acts have fostered grievances against the state and destroyed public trust in law enforcement authorities.

Restructuring Nigeria's political and economic structure appears to be a viable strategy to overcome these obstacles. Decentralization of authority and resource management techniques can stimulate efficiency, creativity, and competition among federating units. Additionally, strengthening national resilience and unity, reducing ethno-regional conflicts, and promoting social peace can be achieved by empowering local communities and promoting inclusivity.

4. Restructuring as a Panacea for Enhanced Democratic Governance

Reorganizing Nigeria's political and economic system has a lot of potential for improving democratic governance, encouraging fair growth, and resolving issues with marginalization. This section examines the various advantages of restructuring, as well as the theoretical foundations for its use in Nigeria. By giving underprivileged people and areas more authority and influence, restructuring offers a chance to lessen marginalization. Restructuring makes it easier to create localized governance systems that are suited to the unique requirements of various populations by transferring power to federating units, such as states and local governments (Onapajo & Babalola, 2021). Decentralizing decision-making processes gives marginalized people a say in how policies are formulated, which reduces their sense of isolation and alienation. By promoting social cohesiveness and integration, this inclusive strategy helps create a more cohesive society in which the interests of all members are considered.

By empowering local communities and regions, restructuring can promote equitable development, which is another attractive feature. Restructuring makes it possible to create customized development plans that cater to the particular demands of constituents by giving states and local governments more power (Otusanya & Lauwo, 2019). This deliberate distribution of resources encourages investment in vital fields, such as healthcare, education, and infrastructure, closing the wealth gap between rich and poor regions. Restructuring also makes it possible for balanced growth to occur across the country, reducing differences in the distribution of opportunities and advancing sustainable development plans. According to Olu-Adeyemi (2018), restructuring has the potential to improve democratic governance by promoting greater accountability, transparency, and public involvement. Restructuring lessens the concentration of power at the federal level by decentralizing resources and power, which increases government responsiveness to people's needs. By involving the public, elected leaders are held accountable for their acts and a culture of transparency and accountability is fostered. Moreover, restructuring creates the foundation for a strong and resilient democratic system by bolstering democratic institutions, preserving the rule of law, and defending civil freedom.

Restructuring gives communities the chance to bolster local governance institutions and structures, enabling them to handle their particular problems successfully. Restructuring promotes the establishment of responsive and responsible local governments by transferring authority to the local level (Olu-Adeyemi 2018). By allowing communities to customize policies and programs to meet their unique requirements, this decentralization of authority fosters more effective service delivery and increases citizen participation in the governing processes. By restructuring the country, it will significantly enhance socioeconomic integration by reducing the distance between rural and urban areas. Restructuring makes it easier to invest in rural infrastructure, healthcare, and education by giving local governments the tools and power to conduct development projects (Otusanya and Lauwo 2019). This focused investment promotes balanced regional development across the nation, lowers migration to metropolitan areas, and boosts economic activity in rural towns.

In resource-rich areas such as the Niger Delta, restructuring provides a means of enhancing the management of people and natural resources. Restructuring guarantees that resource richness translates into real benefits for local inhabitants by giving states and communities more authority over resource distribution and revenue production (Onapajo and Babalola 2021). This resource control system lessens complaints and disputes over resource ownership by promoting environmentally friendly development methods, fair resource revenue distribution, and sustainable development practices. In Nigeria's political landscape, ethnic diversity has been a source of both strength and life. Through the promotion of inclusive governance systems, restructuring can act as a catalyst for national unity and inter-ethnic cooperation (Akinyetun 2024). Restructuring fosters trust and unity among various communities by allowing for increased participation of multiple ethnic groups in decision-making processes and decentralizing power. Ethnic conflicts are lessened, societal cohesion is strengthened, and a sense of shared identity and belonging is fostered through inclusivity.

By providing underprivileged groups, especially women and youth, with more access to economic and political opportunities, restructuring offers a chance to empower these groups (Akinyetun et al., 2021). Restructuring addresses past injustices and advances social justice by supporting affirmative action programs and guaranteeing fair representation in the local government systems. In addition to bolstering democratic institutions, empowering women and young people promotes inclusive and sustainable development.

5. Challenges of Implementing Restructuring Reforms

To guarantee viability and success, restructuring measures in Nigeria must consider a number of factors and problems. Firmly established political elites may oppose restructuring efforts if they believe that the reforms would jeopardize their power and interests. Disagreements between political parties and stakeholders regarding the extent, type, and timing of restructuring measures may lead to political inertia and gridlock. Restructuring efforts in Nigeria are severely hampered by the country's deeply ingrained identity politics and ethno-regional conflicts (Akinyetun, 2024; Okibe, 2022). Divisive attitudes driven by worries about marginalization or favoritism may prevent agreement on reorganization plans, especially if certain groups believe that changes hurt their privileges or interests.

The efficient implementation and maintenance of decentralized governance systems, fiscal autonomy, and resource control may be hampered by inadequate administrative and institutional competencies at different levels of government. Initiatives to increase capacity, educational programs, and technical assistance are necessary to improve policy implementation and to fortify government institutions. Restrictions imposed by the constitution and law may make it more difficult to alter important laws to implement restructuring reforms (Nguyen et al., 2023). To ensure legitimacy and compliance, planned restructuring measures must be harmonized with current constitutional laws, which call for serious consideration and legal competence.

Macroeconomic stability, budgetary restrictions, and prospective income losses must be carefully considered in light of the economic problems posed by resource control, revenue-sharing reforms, and fiscal decentralization. It is imperative to employ alternative revenue streams, make budgetary adjustments, and exercise careful financial management to reduce economic risks and preserve the fiscal autonomy of the state and local governments (Mohammadi et al., 2023). Due to the general public's limited comprehension of the advantages and consequences of structural reforms, extensive public education campaigns, stakeholder engagement programs, and public consultations are crucial. Gaining agreement and support from stakeholders during the reform process requires fostering communication, openness, and inclusivity.

6. Institutional Reform as a Necessity

To address Nigeria's developmental issues and improve democratic governance, policy recommendations seeking to reorganize the nation's political and economic structure must be implemented. To clearly define the distribution of power between the federal, state, and local levels and to prioritize decentralization, constitutional amendments ought to be implemented. Clauses that acknowledge federating units' rights to resource control, self-governance, and equitable representation should be included in these changes (Baridam et al., 2022). To promote cooperation and consensus building, mechanisms for intergovernmental coordination and dispute resolution must be established.

A revenue-sharing formula which provides a more equitable allocation of funds among the federal, state, and local governments, is a crucial component of restructuring is examining and modifying the revenue-sharing formula. Strengthening state and local governments' financial independence and assisting development initiatives means giving them a larger portion of tax money (Baridam et al., 2022). When allocating resources, considerations, such as population size, internal revenue generation, development indicators, and social requirements, should be considered (Olu-Adeyemi, 2018), to give state and local governments more control over land, minerals, oil, and gas that fall within their purview. To guarantee that profits from resource extraction support local economies and sustainable development, transparent revenue-sharing schemes must be implemented. Furthermore, strong legislative frameworks and community consultation procedures are required to preserve community rights and safeguard the environment during resource extraction.

To improve inclusivity, openness, and integrity in the electoral process, restructuring initiatives should include electoral institutions and procedures. This entails implementing policies to combat violence and electoral malpractices, thus bolstering the basis of democracy. Moreover, efforts to strengthen capacity should be directed towards enhancing accountability and service delivery, thereby strengthening local governance systems (Omondi, 2019). To ensure accountability at all governmental levels, independent oversight organizations and anti-corruption authorities must be established to examine and prosecute cases of power abuse and corruption. Moreover, Effectiveness, independence, and integrity of the judiciary are critical to the success of restructuring initiatives (Yagboyaju & Akinola, 2019). The main goal of judicial reform is to enhance accountability, openness, and autonomy

within the judiciary. Prioritizing prompt and fair resolution of conflicts pertaining to resource management, interstate relations, and constitutional issues is important. Alternative dispute-resolution processes, such as arbitration and mediation, should be supported to expedite the resolution of conflicts in a fair and efficient manner.

7. Policy Implications and the Way Forward

Implementing policy recommendations aimed at promoting fair development, strengthening democratic governance, and building national unity is vital to effectively solving Nigeria's socioeconomic and governance difficulties. To bolster democratic institutions, expand federating units' authority, and reshape the relationship between the federal, state, and local governments, a thorough constitutional reform process ought to be stated (Baridam et al., 2022). Constitutional modifications should prioritize fiscal federalism, resource control, and equitable representation to guarantee more equitable allocation of power and resources.

It is essential to make Laws to provide state and local governments more authority over the distribution of resources, the creation of revenue, and the control of spending. To guarantee justice and equity, this decentralization should be complemented by an examination of revenue allocation methods, considering variables such as population density, potential for revenue generation, and requirements for regional development (Atisa et al., 2021). The government must be willing to pass laws giving state and local governments more control over the land, minerals, oil, and gas that fall under their purview. It should also create accountable and transparent revenue-sharing arrangements to guarantee that the money extracted from resources supports local economies and sustainable development projects.

To improve the fairness, transparency, and inclusivity of the political process, electoral reforms should be implemented with a particular focus on voter registration, campaign funding laws, and electoral administration. It is important to implement policies that support underrepresented groups' increased engagement in politics and decision making, particularly for women and young people (Akinyetun, 2021b). Also, efforts must be made to fortify local governance frameworks and enhancing service delivery, accountability, and transparency at the local level; allocating resources to capacity-building programs, training initiatives, and technical assistance. The government must strive to improve local governance procedures and encourage public involvement and democratic decision-making through town hall meetings, neighbour-hood forums, and participatory budgeting projects.

To promote economic diversification, the government should make policies to shift the economy's strong reliance on oil and gas exports to industries including technology, manufacturing, tourism, and agriculture. Investments in infrastructure, human capital development, and innovation should be made in tandem with diversification to foster long-term economic growth and job creation across a range of sectors and geographical areas.

Efforts must be made towards enhancing national reconciliation and conflict resolution. Through discussions, reconciliation, and peace building activities targeted at addressing ethno-regional tensions, inter-communal conflicts, and instability, the government must strive for national unity, social cohesion, and collective resilience (Akinyetun, 2024). Encourage cooperation, alliances, and intergovernmental cooperation to address common issues and shared development goals in the spirit of solidarity and togetherness.

8. Conclusion

This study emphasizes the critical necessity of resolving Nigeria's enduring development issues, which have impeded the nation's advancement and jeopardized people's welfare. Nigeria continues to struggle with issues of poverty, inequality, corruption, and political instability, which threaten to undermine its long-term stability and prosperity, despite the abundance of natural and human resources. The main findings of this study highlight the importance of restructuring Nigeria's political and economic structure to improve democratic governance and socioeconomic advancement. Nigeria may realize its full potential and build a more just, inclusive, and resilient society by adjusting institutional structures, distributing authority to federating units, and implementing resource control measures. Restructuring provides an opportunity to tackle the underlying reasons for marginalization, encourage better responsibility and openness in government, and support regional autonomy. This study also advocates additional research and lobbying to achieve the restructuring goal in Nigeria. Comprehensive research is required to better understand the possible advantages, difficulties, and ramifications of restructuring reform. It is also necessary to include stakeholders and increase the public awareness of the significance of this problem. Policymakers, academic institutions, and civil society organizations must work

together to advance the restructuring agenda and garner support for reform initiatives. Indeed, reorganizing Nigeria's political and economic structure is both a practical and moral requirement for achieving the nation's full potential and guaranteeing a better future for all of its residents. It calls for fearless leadership, thoughtful decision making, and steadfast dedication from all facets of society. Nigeria can overcome developmental obstacles and create a more inclusive, successful, and democratic country for future generations by cooperating to implement restructuring changes.

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Excel Solver Wizard Model Development for Abeokuta's Rainfall Intensity, Duration and Frequency

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Abstract. In hydraulic engineering systems, the kind and speed of water flow that results from rainfall activity in a particular catchment are constant variables. Twenty-five (25) years' worth of Abeokuta daily rainfall data (amount and duration) were provided by the Nigerian Meteorological Agency (NIMET), Abuja. After that, frequency analysis was performed on this data to produce intensity-duration-frequency models. The Excel Optimization Solver wizard was used to get the mean rainfall levels for the following time intervals: 5, 10, 15, 20, 30, 45, 60, 90, 120, 180, 240, 300, and 420 minutes. The data was then subjected to frequency analysis. For return periods of 2, 5, 10, 25, 50, and 100 years, defined and non-specified IDF models were created using the Normal distribution and Pearson type 3 distributions. Abeokuta has not witnessed these models' development. Values of the mean squared error (MSE) and coefficient of determination (R^2) were used to assess the probability distribution functions' fitness. The normal distribution has R^2 and MSE values between 0.977 and 0.991 and 85.73 and 118. 14, but the Pearson type 3 distribution has values between 0.964 and 0.997 and 42.88 and 118.68. It is recommended that the Ministry of Works utilize probability distribution models to anticipate rainfall intensities in the city of Abeokuta, in order to set acceptable design objectives.

Keywords: Excel Optimization Solver, Normal distribution, Pearson Type 3 distributions, Goodness of fit test, IDF models, Abeokuta.

1. Introduction

In all river basins, efficient management of water resources can be beneficial in fulfilling the first and second Sustainable Development Goals of the UN, which are to end poverty and ensure food security (https://sdgs.un.org/goals). Rainfall Intensity Duration Frequency links are created using statistical analytic techniques on rainfall volume and duration, and these connections can be effectively utilized for the study and design of flood control systems. As per David et al. (2019), effective planning and design measures for extreme events such as floods, droughts, and rainstorms have a higher chance of success when there is a proper comprehension of the frequency of severe events. El-Sayed (2011) argued that projects involving water resources required a strong foundation in IDF modeling. Rainfall volume and duration data from rain gauge stations are frequently analyzed using probability distribution functions. The maximum intensity of rainfall is the dependent variable, while other relevant variables, such as rainfall length and frequency, are represented as independent variables in the IDF formulae, which are empirical equations.. Chow et al. (1988) state that several of these probability functions are used in practical hydrological applications. Researchers and academics from all around the world have become interested in correct assessment of the intensity-duration-frequency relationship due to its widespread application (Mohammed Zakman, 2016). The IDF models in Port Harcourt show that coverage in Nigeria has spread from the North Central region to the South-East and South-South [Ilaboya & Nwachukwu, 2022; Nwaogazie & Masi, 2019) and Eket in the Awka Ibom State (Nwaogazie & Uba, 2001). For return periods of two to ten years, these results validate the IDF theory. With sufficient knowledge of the IDF, climate smart agriculture methods can be put into reality. The removal of barriers faced by small-scale farmers, such as lack of access to technical skills, inadequate market access, and inadequate investment, depends on the management of natural resources (land and water)

(Morton, 2007).

The creation of these models is essential to the effective building of structures designed to mitigate flooding in Abeokuta. The last flooding disaster occurred in 2022, resulting in several million Naira in property losses and fatalities.

2. Research Methodology

2.1 Description of the Study Area

Abeokuta serves as the capital of Ogun State, which is situated in southwest Nigeria. Situated on the east bank of the Ogun River, amidst a collection of rocky outcrops in a forested savanna, it is roughly 130 kilometers by sea or 77 kilometers north of Lagos by train, with an approximate metropolitan area of 879 km^2. The location lies within latitudes 07°09'20" N and longitudes 03°20'42" E, and the elevation is 64 meters above sea level. Figure 1 provides a graphic representation of the study region.

2.2 Data Collection

The data was given by the Nigerian Meteorological Agency (NIMET) and covered the 25-year period from 1986 to 2010. Data spanning from five to four hundred and twenty minutes was divided into segments. Using the ranking data, rainfall intensities might be calculated for the creation of several models.

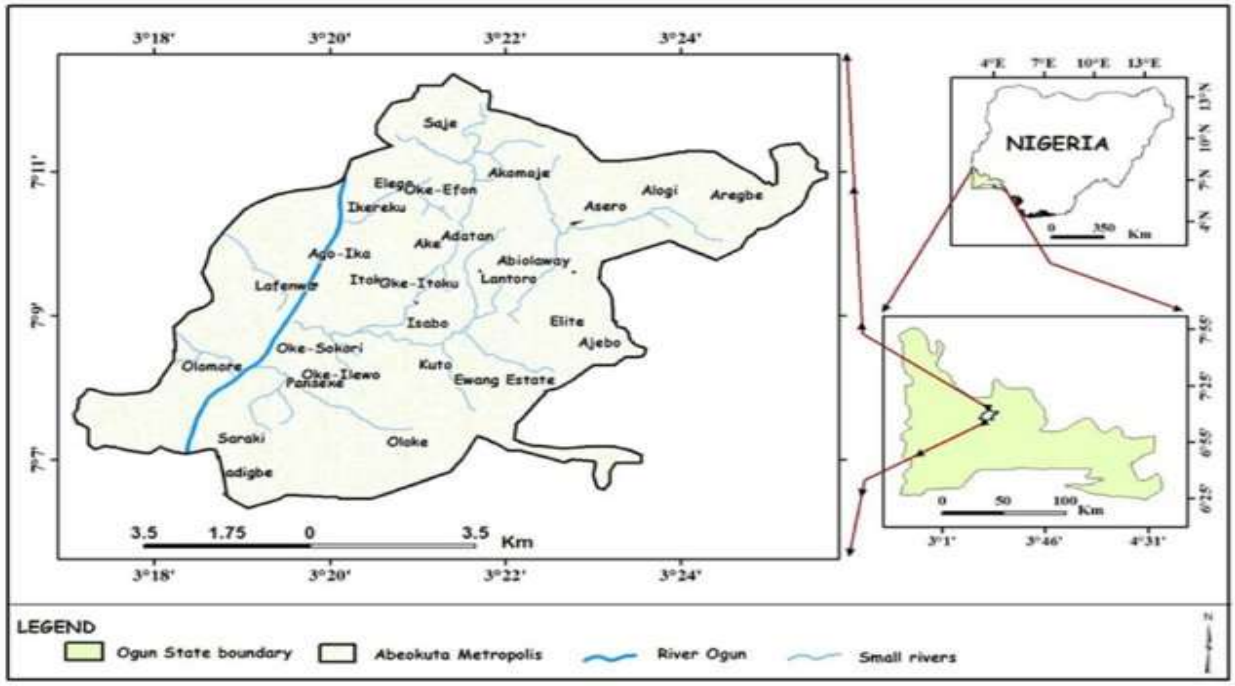


Figure 1: *Map of Ogun State showing Abeokuta (Google., 2024)*

2.3 Data Analysis

The following durations were chosen to have the largest amount of rainfall: 5, 10, 15, 20, 30, 45, 60, 90, 120, 180, 240, 300, and 420 (minutes). Equation (1) illustrates the mathematical expression of the IDF link described by (Chen, 1983; David et al., 2019):

$I = f(T,d)$ (1)

Note: duration is d; return period is T; intensity is I.

The rainfall amount is converted to intensity (mm/hr) by dividing the total by the time (minutes) and multiplying the result by 60. For example, a 20-minute rainfall period of 32.6 mm results in an intensity of (32.6/20) x 60 = 97.8 mm/hr.

Table 1 displays all of Abeokuta's intensities for various time frames.

For the station under consideration, rainfall intensity magnitude was determined using a frequency analysis method. The earlier study by (Nwaogazie & Masi, 2019) demonstrated that Pearson Type III and the Normal distribution best suit rainfall models that have been established; as a result, these two probability distribution functions were accepted for computing rainfall intensities for particular return periods.

2.4 Normal Distribution

One often utilized probability distribution for determining the values of rainfall intensity is the normal distribution. Equation (2) was used to calculate the numbers for the intensity of the rain:

$X_T = X + K_T S$ (2)

where XT represents the intensity of the rainfall (hydrologic event magnitude).

Table 1: Ranked Observed Annual Rainfall Data for Different Durations for Abeokuta

Annual Maximum Rainfall Amount (mm)													
Rank	Duration of rainfall (mm)												
	5	*10*	*15*	*20*	*30*	*45*	*60*	*90*	120	180	240	300	420
1	35.1	45.2	54.3	62.1	70.3	84.3	88.6	89.7	108.3	122.8	128.3	128.3	128.3
2	31.8	45.0	47.4	58.1	64.8	70.3	84.3	89.3	89.3	108.3	122.8	122.8	122.8
3	28.0	42.9	45.2	55.6	64.6	67.2	82.3	88.6	88.6	92.2	108.3	108.3	108.3
4	27.5	41.4	45.0	54.3	62.8	64.9	70.3	88.1	88.1	89.3	102.4	103.0	103.0
5	24.6	38.5	44.7	47.4	62.1	64.8	67.2	82.3	82.3	88.6	92.2	102. 4	102.4
6	24.1	36.9	42.9	45.2	58.1	64.6	64.9	82.0	82.0	82.3	89.3	92.2	92.2
7	19.4	35.1	42.3	45.0	47.4	64.1	64.8	67.2	67.2	82.0	88.6	89.3	89.3
8	18.6	31.8	41.8	44.7	45.2	64.0	64.6	65.9	65.9	67.2	82.3	88.6	88.6
9	16.4	28.5	41.4	42.9	44.7	63.7	64.0	64.8	64.8	65.9	82.0	82.3	85.1
10	16.3	28.0	38.5	42.3	42.9	62.1	63.7	64.6	64.6	64.8	78.8	82.0	82.3
11	15.6	27.5	36.9	41.8	41.8	58.7	62.1	64.0	64.0	64.6	70.6	76.1	82.0
12	15.5	25.4	35.1	41.4	41.4	58.2	58.7	63.7	63.7	64.2	67.6	74.6	81.4
13	15.1	24.6	32.8	41.0	41.0	47.4	58.2	58.7	58.7	64.0	65.9	72.8	75.9
14	14.2	24.5	31.8	40.8	40.8	45.2	47.4	58.2	58.2	63.7	64.8	65.9	74.6
15	14.0	24.1	30.1	38.5	38.5	42.9	44.5	55.6	56.0	61.4	64.6	64.8	71.8
16	13.5	23.4	28.0	36.9	36.9	41.8	44.1	53.8	55.6	58.7	64.0	64.6	68.3
17	13.4	20.7	28.0	31.8	35.3	41.4	42.9	50.9	53.8	58.7	63.7	64.2	67.9
18	12.5	19.7	26.8	30.8	33.8	41.0	42.6	49.4	53.6	58.2	62.4	64.0	65.9
19	12.4	19.5	24.1	30.1	31.8	40.4	41.8	48.7	49.4	54.2	59.6	63.7	64.8
20	11.5	18.6	23.7	29.5	30.1	38.7	41.0	47.4	47.4	53.8	58.7	62.4	64.6
21	11.3	17.6	22.5	26.0	29.8	38.5	38.5	43.6	47.3	51.5	58.7	61.7	63.7
22	10.0	17.0	22.4	24.8	28.3	34.1	38.0	43.0	45.0	51.2	58.2	61.1	62.4
23	9.8	16.9	20.1	24.6	28.2	32.4	37.5	42.9	44.7	49.4	56.7	60.7	61.7
24	9.8	16.4	19.5	24.1	25.4	32.3	35.7	42.6	43.6	47.4	56.4	58.7	61.1
25	9.6	16.4	19.3	22.2	24.6	31.0	35.5	40.9	42.9	46.6	53.8	58.7	59.2

Using the Excel optimization solver, the non-linear power law provided by Equation (4) was calibrated to yield the model parameters C, m, and a.

$$K_T = w - \frac{2.515517+0.802853w+0.010328w^2}{1+ 1.432788w + 0.189269w^2+0.001308w^2} \quad (3)$$

where w = Intermediate Variable and is given in Equation(3a) as:

$$w = \left[In\left(\frac{1}{P^2}\right)\right]^{1/2} \quad (3a)$$

and P = exceedance probability given in Equation (3b) as:

$$P = \frac{1}{T} \quad (3b)$$

where T = return period

Example: Normal distribution frequency factor for a 5 years return period

$$P = \frac{1}{5} = 0.2$$

$$w = \left[In\left(\frac{1}{0.2^2}\right)\right]^{1/2} = 1.794$$

Substituting our values into Equation (3) we have;

$$K_T = w - \frac{2.515517+0.802853(1.794)+0.010328(1.794)^2}{1+ 1.432788(1.794) + 0.189269(1.794)^2+0.001308(1.794)^3}$$

$$K_T = 0.841457$$

Table 2 displays the calculated K_T values for the Normal distribution for various return durations.

Table 2: Normal distribution frequency factor

Return Period	2	5	10	25	50	100
P	0.5	0.2	0.1	0.04	0.02	0.01
W	1.17741	1.794123	2.145966	2.537272	2.79715	3.034854
K_T values	-1E-07	0.841457	1.281729	1.751077	2.054189	2.326785

E. IDF Model Calibration

Sherman's IDF model is given as (4)

$$I = \frac{CT_r^m}{T_d^e} \quad (4)$$

T_r stands for return period (year), I for intensity of rainfall, C, m, and a for model parameters, and T_d for duration (hours).

The model parameters C, m, and a were obtained by calibrating the non-linear power law given by Equation (4) using an Excel optimization solver.

2.5 Test for Good Fit Quality

The rainfall intensities were fitted by the Pearson Type 3 and the Normal distribution using the Anderson-Darling test, with significant values of 0.711 and 0.754 at the 5% confidence level, respectively.

3. Results and Discussion

Based on the estimated coefficient of determination, R2, and mean square error values for a specific return period, Table 3 shows that the Normal distribution model best fits the largest amounts of rainfall.

Equation (1) was utilized in the computation of rainfall intensity values. Table 1 displays the mean and standard deviation of the normal distribution of rainfall intensity. By changing the values of XT, KT, and S from Table 1, Equation (2) may be used to calculate the probability equivalent of rainfall intensity using a Normal Distribution for a duration of 10 minutes and a return period of 5 years.

The rainfall intensities were fitted by the Pearson Type 3 and the Normal distribution using the Anderson-Darling test, with significant values of 0.711 and 0.754 at the 5% confidence level, respectively.

$X_T = 116.3 + (0.841x\ 51.8)) = 159.86$ mm/hr

3.1 Calibration of Specified Return Period IDF Models

According to David et al. (2019), the Sherman equation IDF models were calibrated for specified return lengths. Table 3 displays the results for the Normal distribution along with the R^2 and mean square error (MSE) coefficients of determination.

Model parameters C, m, and a, are generated for a particular duration and return period after Equation (4) is calibrated using Excel optimization software. These IDF models are return period specific, as opposed to the non-specific models that are shown in Table 3. (see Equation 7).

Table 3: Developed IDF Models for different return periods using Normal Distribution rainfall intensity values for Abeokuta

Return Period	IDF Model ±	Coefficient of Determination (R^2)	Mean Squared Error (MSE)
2	$I = \frac{4.898{T_r}^{6.764}}{{T_d}^{0.543}}$	0.977	85.73
5	$I = \frac{2.251{T_r}^{3.603}}{{T_d}^{0.573}}$	0.985	94.57
10	$I = \frac{1.695{T_r}^{2.703}}{{T_d}^{0.584}}$	0.988	100.59
25	$I = \frac{1.312{T_r}^{2.054}}{{T_d}^{0.594}}$	0.980	107.93
50	$I = \frac{1.193{T_r}^{1.734}}{{T_d}^{0.600}}$	0.991	113.15
100	$I = \frac{1.107{T_r}^{1.504}}{{T_d}^{0.604}}$	0.991	118.14

± return period specific models for Normal Distribution for Abeokuta

3.2 Evaluation of iterative Equation Solver in Excel

The Excel Solver software was used to evaluate the model's parameters over a 100-year defined return period. The generic IDF model presented in Equation has undergone ten (10) iterations (7).

Table 4: Model Parameters for Sherman's Specific IDF Model Calibration

Iteration	**C**	**m**	**a**
1	1	1	1
2	1.08689	1.4	0.824064
3	1.129055	1.611199	0.727277
4	1.132479	1.635577	0.721812
5	1.137515	1.662717	0.772641
6	1.137736	1.663208	0.776114
7	1.137797	1.663488	0.77664
8	1.137797	1.663488	0.776639
9	1.137797	1.663488	0.776639
10	1.137797	1.663488	0.776639

Table 5: Tabular Computation of Coefficient of Determination for Abeokuta

Intensity	$Intensity_{pred}$	(I - Ip)2	(I-Iavg)2
192.1498641	207.892929	247.8440829	14668.11
155.0966423	143.436046	135.9695073	7065.876
128.463877	115.444493	169.5043489	3297.745
112.3163251	98.9639205	178.2867085	1703.91
81.16415026	79.6511058	2.28930367	102.5414
65.78223051	64.1071879	2.805767634	27.62183
52.68677814	54.9554029	5.146658379	336.7629
39.42640188	44.2308529	23.08274969	999.2854

30.27733462	37.9165648	58.35783719	1661.422
21.74873497	30.517145	76.88501435	2429.42
18.13831768	26.1605922	64.35688805	2798.363
15.11094943	23.2144685	65.66702178	3127.821
11.13080687	19.3872836	68.16940809	3588.857
Average = 71.038		Sum = 1098.365	Sum = 41807.74

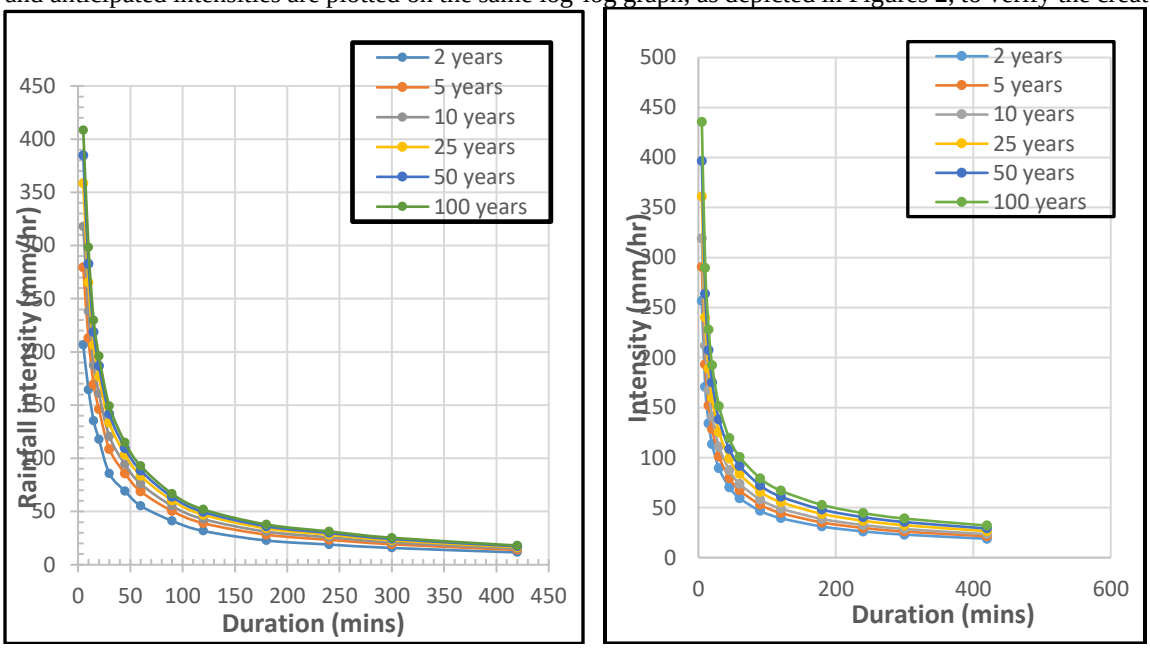
Additionally, a General IDF model was created. Thirteen durations in total multiplied by six return periods equals seventy-eight input data points. Table 1 contained all of the input data.

Using Excel Optimization Solver, a general (non-specified) IDF model was created using programmed least squares equations. The outcome was Equation (7).

$$I = \frac{603.235{T_r}^{0.135}}{{T_d}^{0.589}} \qquad (7)$$

Coefficient of determinant (R^2) = 0.984; Mean Squared Error = 149.53

Comparison of the Intensities of the Predicted and Observed Rainfall
With this model, one can forecast the intensity of rain for any length of time and for any return period. The observed and anticipated intensities are plotted on the same log-log graph, as depicted in Figures 2, to verify the created model.



Figures 2: *Plots for observed and predicted intensities*

Evaluation of Excel Optimization vs Regression Approach Model parameters, R2, and MSE solver outputs
Table 6, which is an expansion of Table 5, demonstrates unequivocally that the outcome obtained by the Excel Optimization Solver option is more dependable than the standard simultaneous solution utilizing a matrix, such as Gauss elimination, inverse or determinant approach, or normal regression method.

Table 6: Results from Regression Approach and Excel Solver Optimization Approach (Normal distribution, 100-year return period)

Method	C	m	A	R^2	MSE
Regression	65.42	3.533	0.575	0.865	324.40
Excel solver	1.138	1.663	0.776	0.996	132.47

4. Conclusion

The generated models for the Normal distribution and Pearson Type 3 distributions show the pattern of higher intensities occurring at lower durations that is noted in the literature. The PDFs' rainfall intensity predictions and the observed intensity values matched fairly well. In terms of return period-specific R2 0.995 and MSE 23.64, the Normal distribution model came out on top. Design intensity for drainage design can be obtained using the proposed models, allowing for efficient flood management.

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The Impact of Music on the Sustenance of Democracy in Nigeria

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Abstract. This paper examines the impact of music on the sustenance of democracy in Nigeria. It discusses music as a vehicle of expression and communication. The paper examines how music is used to mobilize people or rally them to solidarity. The study relies on the survey of selected songs from the albums produced by Nigerian musicians on issues bordering on the sustenance of democracy in Nigeria. The outcome of the study reveals the use of music in the transmission of moral values; transmission of culture; media system; social reconstruction; political solidarity; electoral campaigns; electoral media; esprit de corps; corruption; communal clashes; political office arrangement; government policy; child abuse and women liberation; fight for freedom/anti-Apartheid crusade; social ill and social revaluations and National integration/patriotic song. The study concludes that music is a part of the process of living and has always been part of man. The study recommends that Nigerian albums should be censored before they are waxed to check and prohibit the dissemination of wrong messages to Nigerians.

Keywords: Music, Democracy, Nigeria, Function, Song.

1. Introduction

Music is a vehicle of expression to man throughout history, whereby his feelings are relayed or communicated. Music is culture-bound. Culture is the whole way of life which distinguishes a human community from another and the means by which it can be compared to one another.

Democracy according to the BBC (1992:300) is a system of government or organization in which the citizens or members choose leaders or make other important decisions by voting.

Music is used to mobilize people or rally them to solidarity. The music of any people is a rallying point, a marshalling point for expression of solidarity. This paper highlights and discusses the impact of music on the sustenance of democracy in Nigeria.

2. Research Design

The methodology for carrying out research work relies solely on the survey of selected songs. Data were collected from the albums produced by Nigerian musicians on issues bordering on the sustenance of democracy in Nigeria. In addition, the review of relevant literature on the various issues highlighting the impact of music in the sustenance of democracy in Nigeria was also made.

3. Issues on the Sustenance of Democracy in Nigeria through Music

The following concepts/issues are of great concern to the sustenance of democracy in the world in general and Nigeria in particular. Issues such as transmission of values and culture, socio-political issues, media system, social reconstruction, political solidarity, electoral campaign, electronic media, national music, spirit de corps, corruption, communal clashes, political officer arrangement, government policy, child abuse and women's liberation, fight for freedom / anti-apartheid crusade, social ills and social revolution and national interaction always determine the level of sustenance of democracy in any developing country. These issues are the thrust of this paper.

4. Discussion and Findings

4.1 Transmission of Moral Values

One of the most important functions of music is to transfer social values and morals. Parents in those days used folktales and didactic songs to transmit moral lessons to the young ones. Even in adult life, people were interested in what the musicians say at one point or the other in their songs. The musicians of any community always express the moral values of music.

They provided quotable quotes and even reference materials. They sing songs which guide the people on their pilgrimage of life. Such morals were transmitted through music and passed from generation to generation. Music is used in the teaching of moral lessons to the young ones.

Ajewole (2004:122) noted that, such lessons help in the moral development of an individual. Ten musicians; Tunji Oyelana, Zeal Onyia, Anike Ejiagha, and Oyesiku among others released fifteen albums on the functions of music to transfer moral values, this represents 35% of the total number of selected song albums. The track 'Oro re o' by Oyesiku, 'Mo lo soko', and 'Bowo ba tan lowo alakowe' by Tunji Oyelana, serve as a good example.

4.2 Transmission of Culture

Music is a very important element in the transmission of culture. Music features in festivals and in ceremonies.

As long as music is used the whole culture/ norms are passed down from one generation to another. And so, music becomes a vital instrument for the transmission and continuity of the culture. Eight out of the selected album, like Morocco Maduka, Nelly Unchendu, and Araba among other musicians performed several songs found in 10 albums (23%) on transmission of culture. The "potopoto" track Araba is a good example.

4.3 Media System

Music serves as a system of communication 'The media' as we know, is very powerful in a democracy. Okafor (2002:11) in support of this assertion notes that the musical system of a country, the ways people produce their music, the contents of the music, etc are all supposed to be part of their social system.

The great Nigerian social critic and musician – Fela Anikulapo Kuti was well-known for the way he used music to turn peoples' attention to some of the things he considered unsavoury in society, such as abuse, the arrogance of power, the question of ethnicity, oppression, international corruption, misuse of public resources, and grabbing of power as the military always do. These were some of the things Fela sang about, in his albums such as VIP, ITT, statement, Yellow Fever, Army Arrangement, Unlimited Liability Company and etike revo wetin. Lyrics by Wole Soyinka and musical performance by Tunji Oyelana and his benders – contain classics of social comment which are still relevant 20 years later.

Other musicians like Sonny Okosun, Ebenezer Obey, Lagbaja (the masked musician), Zeal Onyia, Onyeka Onwenu, Mike Ejeagha, Nelly Unchedu, King Sunny Ade, Sir Shina Peters, Oliver de Coque, Chief Stephen Osadebe, Morocco Maduka, Celestine Ukwu, etc. have also contributed songs, which are not merely critical but directing people at which course to go. These are the types of songs that have been used in national programmes like the Operation Feed the Nation (OFN) election campaigns, registration of voters, health campaigns like immunization, programmes, the war against aids and the war against indiscipline (WAI). These are areas in which musicians, have contributed to the sustenance of democracy in Nigeria. From the findings, 40 albums of 93% were released by these musicians, using music as a system of communication to sustain democracy in Nigerian societies.

4.4 Social Reconstruction

The use of music in social reconstruction and in character formation is not new. Aristotle, according to Harman and Metters (1962:40) declared that music should be used for character formation, especially among the youth. Those who transgressed on the norms of society in relation to music were ostracized. So, individuals benefit from the music played in his/her society. From the selected albums, nine Nigerian musicians such as Jaigbade Alao, Lagbaja, Ayinla Kollington, Celestine Ukwu, etc release 18 albums (42%) using music as a tool for social reconstruction. 'Mass mobilization' in the tract of Ayinla Kollington is a good example.

4.5 Political Solidarity through Music

In Africa, one cannot talk of the traditional political system without the place of music. Music therefore occupies a very important position in the courts of African kings. Similarly, one can remember that during the Nigerian Civil War, different songs were composed to communicate the feelings of the people at various ends. There was one record waxed in praise and support of 'Gowon'. The Biafra also composed various songs to strengthen their unity and solidarity.

Findings from selected albums show that, eighteen musicians among randomly selected 25 (50%) express the political feelings of the people. The prominent among them are Hubert Ogunde, Ayinla Kollington, Salawa Abeni, Funmi Adams, Evi Edna Ogolis, etc. The tracks, 'Yoruba Ronu' 'Oro Oselu Nigeria'. 'All we Need is Love', are good examples.

4.6 Electoral Campaigns

Music is a good tool for political rallies or electoral campaigns. Abiodun (2003:10) noted that all political parties in Nigeria have songs, which are heavily worded to get the support of the electorate or voters. NNP had this song as their party song:
NPP Nigeria people's party (3 times)
NPP we are the people's choice
Power, Power, Power to the people
Progress, Progress, Progress for our Nations
NPP we are the people's choice

These political songs helped political leaders to gain support and popularity. Bebey (1973:42) pointed out that, no electoral campaign is completed without the active support of music. He referred to or cited the 1960 elections where 22 (78 rpm) records were waxed within the period in Western Nigeria. The findings from the selected data indicate that twenty musicians released 30 albums (70%) using music for electoral campaigns, the tracks 'Otito koro', 'Aye', by Hubert Ogunde and King Sunny Ade 'The Way Forward' (Nigeria yi ti Gbogbo wa ni) are good examples.

4.6 Electoral Media

Radio and television media use music in their broadcasts either for advertisement of Government policy or entertainment. 100% of Nigerian musicians want their music to be played on electronic media to gain recognition and popularity. Obey's track 'Operation Feed the Nation' Go on with One Nigeria and Better Life for Women', is used in electronic media to portray government policy.

4.7 National Music

Many countries used their National Anthems to establish the ethos of their countries. For example:

Britain – Grant her victorious, long to reign over us. Frustrate her enemies, confound their politics;
France – shall hateful, tyrants, mischief-making affright and desolate the land, while peace and liberty lie bleeding. To arms ye brave, march on, march on, all hearts resolved on victory or death;
America – Does the star-spangled banner still wave O'er the land of the brave and the land of the frees and Nigeria – The labours of our heroes past shall never be in vain…one nation bound in freedom, peace and unity.

Within narrower confines, political, social, economic and self-interest groups always use music to rally around and mobilize their members and also express their feelings to generate sympathy and activity in society. Findings show that fourteen musicians released 10 albums (23%) using music to mobilize the members of the society. Among them are Bunmi Olajubu, Fela Anikulapo, Ebenzer Obey, King Sunny Ade, etc. 'Save Nigeria Today', 'Who no know go no know', and 'Fire in Soweto' are good examples.

4.8 Espirit de Corps

Music provides group solidarity among soldiers and policemen. During Nigeria the Biafra War (1967-1970), one of the products of that tragedy was a huge volume of songs, which were spontaneously composed which built up hope and drove people into action. They consoled. They gave hope. They banished fears and provided confidence and faith. Eight notable musicians released 56 albums (12%) using music to console and alleviate fear. Among them are Sunny Okosun, Fela Anikulapo Kuti, I.K. Diaro, Oyesiku, Bunmi Olajubu, etc. 'Stop the war', 'Give peace, a chance' and so on.

4.9 Corruption

Eighty percent (80%) of Nigerian musicians are sensitive to all that goes on in the country. Comments are made in the form of appraisal; questioning, persuasion, condemnation, appeal and warning. Popular among the musicians who condemn the act of corruption and looting of the national treasury was Fela Anikulapo Kuti's album "ITT" in which he condemned the N2.8 billion missing money between Abiola (I.T.T Contractor) and Obasanjo, the then Head of State. I.T.T originally meant International Telephone Telecommunication but in Fela's album meant International thief-thief. 36 albums (84%) centred on corruption activities in Nigeria as shown in the selected data.

4.10 Communal Clashes

Evi-Edna Ogolis' album – 'The World One Kilometer', where she talked about 'Nations fighting against each other'. Okosun's album – 'Give Peace a Chance', and 'Stop the war', are indications of the musician's appeal for a peaceful community. 30

albums (70%) revealed the use of music as a means of settlement of communal clashes.

4.11 Political Office Arrangement

I.K Dairo's album 'Kasora' (Let us be careful) released in 1963 was the first to warn Nigerians about the civil war that eventually broke out as an aftermath of the corrupt practices of the 1964 election. Using the Western State experience in the 1964 election, Huber Ogunde's album 'Otito Koro' 'Yoruba Ronu', narrated the use of thugs after the manipulations of election results which resulted in the burning of houses' killing etc. Ogunde condemned the act and asked Yoruba to think (Yoruba Ronu). The song preached peaceful co-existence among the Yoruba.
From the findings, other albums including Okosun's album – 'Power to the People', and Igbokwe's album – 'Mo loro yi so' were pleas for good governance. Ayinla Kollington's album "Oro ibo to Nbo cautioned the electorates about problems election malpractices could bring. Salawa Abeni's Album – 'Oro Oselu Nigeria', pleaded to Nigerians not to vote for money but for either SDP or NRC (The two political parties available by then) Jaigbade Alao's album, - 'President Obasanjo' traced the political history of Nigeria using banana plantation to represent Nigeria where everybody was waiting to eat ripe 'Banana'. He pleaded for fair distribution of the banana. 28 albums (65%) cautioned and exposed political office arrangement in the findings.

4.12 Government Policy

Ebenezer Obey's album – 'Operation Feed the Nation' released in 1977, was the first of its kind to talk about government policy. He emphatically warns that farmer's matter should not be taken lightly. Obey's album 'Austerity Measure waxed in 1982 and reflected on the economic implications of the policy. He later sang about 'Better Life Women' (Babangida Policy). Kollington's album – 'Mass Mobilization' was one of the different efforts of Nigerian musicians to join the enlightenment campaign to inform people about government policy. The finding indicates that 34 albums (79%) espoused Nigerian Government Policy.

4.13 Child Abuse and Women's Liberation

Christ Essien Igbkwe's album – 'Hear the Call' and Funmi Adam's album – 'Omode o' are albums that call on children to heed to parents' instructions, and avoid the use of drugs, and cultism, though they are youth today, they are the hope of tomorrow. On the other hand, Okosun's album – 'African Women Wake Up', talked about women's liberation and called for their involvement in socio-political activities. 20 albums (47%) cautioned on child abuse and women's liberation.

4.14 Fight for Freedom/Anti-Apartheid Crusade

Okosun's is more popular in this area. His albums, 'Papa's Land 'My people Wake Up', 'Fire in Soweto', and 'Holy Wars are of International repute in the bid to call for freedom in Africa. Christy Essein's albums – 'We Ought to Fight for the Unity of Our Father and We Ought to Fight for the Unity of Africa', are part of the anti-apartheid crusade 17 albums (40%) out of the selected records call for freedom in Africa.

4.15 Social ill and Social Revaluation

Araba and his Rhythm Blues in his album – 'Potopoto' waxed in 1957 warned against prostitution which today is very relevant to the call "Beware of AIDS'. Oyesiku and his Rainbow Quintet in his album – 'Oro Re O' released in 1958 warned women to desist from gossiping – a social ill. In Ogunde's album – 'Aye' he called the drivers to lessen their speed (Onimoto Rora Sare o) Onimoto Rora Ni Corner o. 'Fela's social revolutionary records include 'Yellow Fever', 'Who no know go know', 'Trouble Sleep Yanga go Wake am', 'Don't Gag me', 'Chop N Quench', Unknown Soldiers etc. 41 albums (95%) warned against social ills.

4.16 National Integration/Patriotic Song

Many of Nigeria's Musicians recorded songs on the need for the country to unite and work together to move the country forward. Such songs include: Bunmi Adam's – 'Save Nigeria Today; Funmi Adam's album – 'All We Need is Love' and Ebenezer Obey's album 'Go on with One Nigeria (Gowon)'. Christy Essien's album – 'Ife' appealed for unity and canvassed for changes in the Nigerian system; and in the same vein Sunny Ade's album – 'The Way Forward' (Nigeria yi ti Gbogbo Wan ni). Several other songs were produced by fifteen (15) Nigerian musicians.

5. Conclusion

Music is a part of the process of living. Music has always been a part of man. It is the vehicle of expression to man whereby his feelings are relayed or communicated. The functional role of music cannot be overemphasized in the transmission of moral values, culture, media system, social reconstruction, political solidarity, electoral campaigns, and government policy. Music as a means of sustaining democracy in Nigeria stabilizes, corrects, educates, and mirrors the

society according to the acceptable and prevailing ethnic norms in the society. Music is very important in the development of the social and cultural aspects of society. It is through music that Nigeria can realize and utilize her resources in terms of norms, customs, folklore, and general traditions.

Music cannot be neglected by man. It continues throughout his lifetime and beyond. Besides spoken language, music is another vehicle of communication used in politics, commerce, education, information and social engagement which constitute man's ways of life. Every ethnic group has one type of music or the other that is relevant to its culture. Most cultural activities are interpreted, expressed, transmitted, exposed and preserved through music.

6. Recommendations

Nigeria's music mainstream is characterized by being full of young and old. Young musicians sing to entertain and praise people. Older musicians should try and redirect their orientation through counselling so that they too can contribute meaningfully and musically to move Nigeria forward.

Many of the song texts of the younger musicians are full of vulgar language. Their albums should be censored before they are waxed to check and prohibit disseminating wrong messages to Nigerians. More Nigerian albums should be played in Nigerian media houses rather than foreign albums. The message of Nigerian musicians is clear enough for Nigerians to understand. Music is dynamic and musicians in Nigeria should use music to transform Nigerians so as to promote Sustainable Democracy and Political Stability.

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Comparative Assessment of Poverty Trends and Socioeconomic Inequality in Nigerian States

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Abstract. This study undertakes a comparative assessment of poverty trends and socioeconomic inequality across the diverse landscape of Nigerian states. Utilizing robust statistical methodologies and data from various sources including national surveys, census data, and socioeconomic indicators, we present a comparative analysis of poverty levels and income disparities within and between Nigerian states over a specified period of 1999-2019. Our assessment focuses on identifying key drivers of poverty and inequality, including economic growth patterns, demographic factors, government policies, and regional disparities. By employing advanced analytical techniques such as regression analysis, Lorenz curves, and Gini coefficients, we unveil nuanced insights into the dynamics of poverty and inequality, shedding light on both persistent challenges and potential pathways for socioeconomic development. The findings of this study contribute to a deeper understanding of the multifaceted nature of poverty and inequality in Nigeria, offering valuable implications for policy formulation and targeted intervention strategies aimed at fostering inclusive growth and equitable development across the nation's diverse socioeconomic landscape.

Keywords: Economic reforms, Fourth republic, Poverty, Inequality.

1. Introduction

There is no one-size-fits-all definition of poverty. This is obviously because the concept is multi-dimensional in nature and can be approached from different perspectives. Poverty can be contextualized based on two different criteria. The first classification is based on basic needs and they are absolute poverty and relative poverty. Schubert and Hemmer (2004) ‘’absolute poverty refers to the lack of minimum provision of a person or a household as regards the physical minimum required for existence, and is so extreme that those affected are no longer in a position to lead a "life worthy of human dignity". In other words, they can no longer satisfy their basic needs. To Schubert (2004) absolute poverty refers exclusively to the situation of particular individuals without any comparison being made between them and others. It exists when the lives of those concerned are impaired to physical or socio-cultural deficiencies. Such absolute classification defines a minimum or basic datum level, below which an individual or household is considered to be in a condition of poverty. This involves consumption norms, usually with some nutritional criteria, which are translated into food requirements and then into a required income. This line is then used in a head counting exercise to determine how many individuals and what proportion of the population are below the line. There are both primary (absolute) poverty and secondary (absolute) poverty. If physical human subsistence (expressed in terms of nutrition, clothing and housing) is not guaranteed, this is referred to as primary (absolute) poverty. On the other hand, exclusion from participation in normal social life or the non-attainment of a minimum level of conventional social or cultural existence is secondary (absolute) poverty.

Relative poverty however, refers to a person or household whose provision with goods is lower than that of other persons or is lower than that of other persons or households. Relative poverty therefore does not necessarily mean that the persons concerned cannot lead a life that is worthy of human dignity. It merely states that, because of the distribution structures in a society, certain economic subjects are disadvantaged to an unacceptable extent. Thus, relative poverty exists when the subjects under consideration are "poor" in relation to "other" - who remains to be more closely specified. This means that the relative classification attempts to define poverty in

relation to either average levels or societal norms. Relative poverty can be objective or subjective. Differences in the (individual) satisfaction of basic needs or in (individual) income values which can be objectively determined and which are described - by value judgement - as "excessive", are an expression of objective relative poverty, irrespective of particular individual perceptions. If, however, such differences are perceived as being "excessive" irrespective of whether this is objectively measurable, there is a case of subjective relative poverty (Goedhart et al, 1977).

Poverty in Nigerian State is perennially on the increase. The latest report by the World Poverty Clock shows that more than 105 million Nigerians are extremely poor, in November, 2020. As at September, the same year, a total of 40.1 per cent 82 .9 million Nigerians lived in extreme poverty. This number has however, drastically changed, in less than two months. The data released on Thursday November 5th, reflects that the poverty trend has further gone deteriorated. This apparently may not be unconnected to some of the impacts of the Coronavirus pandemic on living conditions in the country.

Nigeria has a total population of 205,323,520 people — of that number, 105,097,856 representing 51 per cent of the county, the data records 51% of Nigerians who now live below $1.90 or N855 a day. The data further shows that more men in Nigeria are extremely poor compared to their female counterparts. Around 53,133,553 million men are living below the poverty threshold while 51,564,303 of women are also extremely poor. The model also provides a target escape rate that Nigeria must meet to escape extreme poverty—it is set at 0.3 people per second. Current data, however, shows that Nigeria falls short of this target with -4.4 people escaping poverty per second.
The figure prior to this, in February 2019, shows that an additional four million Nigerians have since fallen under the poverty line. The report adds that six Nigerians become poor every minute. In June 2018, the Brookings Institution projected that Nigeria had overtaken India, as the poverty capital of the world, with 86.9 million extremely poor people. Today, India has 48.7 million people living in poverty, from 73 million in June 2018. By implication, India has pulled out a minimum of 24 million people from poverty in less than eight months.

The World Bank says a person can be said to be living in extreme poverty if they live below the poverty line of $1.90 which translates to N693.5 per day. In the same vein, unemployment has risen from 4.2percent in 1999 to 23percent in the third quarter of 2018 with youth unemployment standing at a staggering 33.1percent. Nigeria today, with 13.5 million, has the world's largest population of out-of-school children; one of the top five countries with highest mortality rates; one of the three remaining polio-endemic countries in the world, and the world's third most terror-afflicted country.

However, to the layperson, the statistics rolled out above may not mean anything. Underdevelopment of the country is more easily understood in terms of: Hunger occasioned by poverty and food insecurity; decimated public school system with poor infrastructure, overcrowded classrooms, inadequate personnel, underachieving students; terribly bad roads including some with craters that can fit a small vehicle; deficiency of equipment, supplies and services in public hospitals; inadequate power supply resulting in regular blackouts, and near-absent public water supply system. We can go on and on with the list of manifestations of developmental inadequacies that make the average Nigerian complain that every family is a local government council supplying its own power, water, education, etc. The question is: how did we, as a nation, arrive at this sorry pass?

Attempts at interrogating the basis for this gross underachievement have yielded various explanations ranging from leadership failure to the lingering effects of colonialism, among others. However, in recent years, one new explanation for the underdevelopment of the country is the devastating consequences of corruption and corrupt behaviour on the part of those entrusted with our commonwealth. With time, corruption has become one of the most assailed factors in explaining the failure and underdevelopment of the Nigeria state. This is not without cause. Corruption is one of the most prominent elements militating against the proper marshalling of resources in Nigeria. The stench of corruption permeates almost every space in Nigeria and has made the country and its systems sickly and unhealthy.

Poverty trends and its various alleviation strategies by different governments, since the return of democracy in 1999 have been quite noticeable in Nigeria. Various Governments have made deliberate efforts in reducing poverty, earmarking huge funds from the nation's coffers without any appreciable result. Official statistics show that poverty has continued to deepen over the years since 1980. Although, it is a global phenomenon, its incidence in Nigeria has been increasingly high since 1980. Data from the federal office of statistics (2004) on poverty profile for Nigeria revealed that the incidence of poverty rose from 27.2% in 1980 to 46.3% in 1985 and then dropped slightly to 42.7% in 1992 and rose sharply to

65.6% in 1996 and then dropped again to 54.4% in 2004. According to the National Bureau of Statistics (NBS, 2013) a staggering 112.519 million Nigerians (that is, 69 percent of the country's population) live in poverty conditions in 2010 and by 2011 the figure rose to 71.5 percent of Nigerians living in poverty conditions. Ironically, the poverty incidence is rising at a time the GDP growth rate is put at 7.75 percent. Nigeria was ranked 142nd among 174 countries surveyed in 1997 by the United Nations Development program- Human Development index (HDI). In 1998, she fell to 146th position and fell among the 40 poorest nations in the world despite her being the sixth largest oil producing country in the world. More than a decade later, the United Nations Development Program – human development index (HDI) ranked Nigeria 154 out of 187 countries surveyed in 2012, 153 out of 186 countries surveyed in 2013, and 152 out of 187 countries surveyed in 2014, thus ranking Nigeria among the forty (40) poorest nations in the world. These rankings contradict the enormous revenue generated by the Nigerian government from crude oil price surge during this period, and further contradicts the bogus statistics often paraded by government and its agencies on the economy's growth trajectory. The HDI report on Nigeria for the period under review seem to collaborate the Mo Ibrahim index for African Governance which ranked Nigeria 41st position out of 52 African countries surveyed in 2013. The Mo Ibrahim index is rated according to performance across four categories of governance: Safety & Rule of law, Participation & Human Rights, Sustainable Economic Opportunity, and Human Development. Participation & Human Rights measures the protection of human rights, civil and political participation, and gender issues. Nigeria ranking in this category have continued to drop over the years and remained at 33rd out of 52 African countries surveyed in 2013. Participation must be given attention in the issue of poverty alleviation programmes in that achieving success in the poverty alleviation programmes required all stakeholders (especially the poor for whom the programmes exist) must be carried along from planning to implementation stages as is the case with NGOs and international organizations poverty alleviation programmes. This gap in participation not only accounts for major failure of the programmes, but also explains the perceived apathy among the general public towards government poverty alleviation programmes in Nigeria.

Poverty situation in Nigeria is galloping. Despite several attempts by successive governments of the fourth republic to ameliorate the scourge, Eze (2009:447) explains that the level of poverty in Nigeria is geometrically increasing (see also Okpe and Abu, 2009:205). Poverty is deep and pervasive, with about 70 percent of the population living in absolute poverty (Okonjo-Iweala, Soludo and Muhtar, 2003:1; the Punch Newspaper, 2009:14). The ballooning poverty situation notwithstanding, Nigeria is blessed with abundant resources. Chukwuemeka (2009:405) observes that the country is blessed with natural and human resources, but in the first four decades of its independence, the potentials remained largely untapped and even mismanaged (see also Omotola, 2008:497). Putting the problem in proper perspective, Nwaobi (2003:5) asserts that Nigeria presents a paradox. The country is rich, but the people are poor. Given this condition, Nigeria should rank among the richest countries that should not suffer poverty entrapment. However, the monumental increase in the level of poverty has made the socio-economic landscape frail and fragile. Today, Nigeria is ranked among the poorest countries in the world.

Furthermore, available statistics present a pale picture of the situation. Extrapolating from the records of the Federal Office of Statistics, Garba (2006) submits that about 15 percent of the population was poor in 1960, but the figure rose to 28 percent in 1980. And by 1996, the incidence of poverty in Nigeria was 66 percent or 76.6 million people. As remarked by Okpe and Abu (2009:205), the poverty level stood at 74.2 per cent in 2000. According to the United Nations Development Programme (2010: 64), the population in poverty is given as 68.7 million as at 2004. This is a very tragic situation when one considers the fact that Nigeria has realized over $300 billion in oil and gas revenues since independence (see Okonjo-Iweala, Soludo and Muhtar, 2003). Awa (1983: 28) notes that up to 95 percent of this great wealth is controlled by about .01 percent of the population. Again, this explains the intensity of inequality in Nigeria. An analysis of the context reveals that poverty holds sway in the midst of plenty. Nigeria is the sixth largest oil producing country in the world but it harbours the largest population of the poor people in Sub-Saharan Africa and is ranked 158th on Human Development Index. There is equally pervasive high-income inequality, which has perpetuated the concentration of wealth in the hands of few individuals (see Action aid Nigeria, 2009:5). However, this is an iniquitous practice that needs to be redressed.

1.1 Conceptual Clarifications of Poverty Trends in Nigerian State

Literatures on poverty reduction in Nigeria; have categorized government's efforts into two distinct time frames or eras. These include the Pre-SAP, SAP/Post-SAP eras. The policies of the Pre-SAP era,

described as essentially ad hoc, included Operation Feed the Nation (OFN), Free and Compulsory Primary Education (FCPE), Green Revolution, Low Cost Housing, River Basin Development Authorities (RBDA), National Agricultural Land Development Authority (NALDA), Agricultural Development Programme (ADP), Agricultural Credit Guarantee Scheme (ACGS), Strategic Grains Reserves Programme (SGRP), Rural Electrification Scheme (RES) and Rural Banking Programme (RBP) (see Garba, 2006; Omotola, 2008:506; Chukwuemeka, 2009:406). During the SAP era, which witnessed the worsening of the socio-economic and political situation of the country, the government equally made some attempts to fight the scourge of poverty (Omotola, 2008:506). These programmes included the Directorate for Food, Roads and Rural Infrastructure (DFRRI), National Directorate of Employment (NDE), Better Life Programme (BLP), People's Bank of Nigeria (PBN), Community Banks Programme, Family Support Programmes (FSP) and Family Economic Advancement Programme (FEAP) (See Garba, 2006; Eze, 2009: 447).

Despite all these antipoverty measures notwithstanding, poverty has consistently been on the increase in Nigeria, showing the ineffectiveness of the strategies and programmes. The policies of the Pre-SAP and SAP eras obviously failed to eradicate poverty in Nigeria. During these periods, the poverty situation in Nigeria was steadily increasing. The failure of these measures has been attributed to lack of targeting mechanisms for the poor; political and policy instability; poor economic policies and structures, over ambitions and interests of political actors, inadequate coordination of various programmes; several budgetary, management and governance problems; lack of accountability and transparency; and lack of mechanisms for the sustainability of the programmes (see Obadan, 2001:166-167; Oshewolo, 2010).

A search of relevant literatures rapidly shows that there is no general consensus on any meaningful definition of poverty. This is because the concept affects many aspects of the human condition, including physical, moral, and psychological, a concise and universally accepted definition of poverty is elusive. Rather, different criteria have been used to conceptualize poverty. Most analysts follow the convention of regarding poverty as a function of income levels insufficient for securing basic goods and services. From this perspective, it has been taken to be concerned with individuals' ability to subsist and to reproduce themselves as well as individual ability to command resources to achieve this (Sen, 1981; Amis and Rakodi, 1994). Historically, this involves a transition from a situation where subsistence depends upon wages with which to then purchase food. Many other experts have conceptualized the poor as that portion of the population that is unable to meet basic nutritional needs (see Ojha, 1970; Reutlin-ger and Selowsky, 1976). Others like Singer (1975) view poverty in part, as a function of education and/or health: life expectancy child mortality, etc. Others like Musgrove and Ferber (1976) identify the poor using the criteria of the levels of consumption and expenditures. Poverty is also related to "entitlements" (see Sen, 1983), which is taken to be the various bundles of goods and services over which one has command, taking into cognizance the means by which such goods are acquired (eg., money, coupons, etc) and the availability of the needed goods. Yet, other experts see poverty in very broad terms, such as being unable to meet "basic needs" - physical (food, health care, education, shelter, etc) and nonphysical (participation, identity, etc) requirements of a "meaningful life" (Streeton, 1979; Blackwood and Lynch, 1994). They however conceptualized poverty as follow:

The first conceptualization of poverty according to (Streeton etal) is its consequence on the deficient provision of goods, based on the absolute or conventional economic approach and measured by expenditure/consumption-, income- and basic needs-oriented indices.

The second conceptualization sees poverty as a consequence of deprivation and lack of rights, based on the relative deprivation, earning capacity and entitlement approaches and measured by income from various sources, rights to and control of resources, cost of producing resources, social security claim, etc.

The third conceptualization sees poverty as a consequence of insufficient capability, based on the capability approach and measured by freedoms and capability of individuals.

The fourth group of definitions sees poverty as a consequence of social and economic exclusion mechanisms. This is based on the socio-economic exclusion mechanism which in turn stands on three paradigms: solidarity paradigm, specialization paradigm, and monopoly paradigm. In the solidarity paradigm, exclusion mechanisms are attributed to troubled relationships between the community and specific groups or individuals, the community being defined in terms of a package of common values, rights and institutions and a social order ensuring therefrom. In the specialization paradigm, exclusion is seen as the result of the conduct of the individual which is again dependent on his interests and

capabilities, so that the social structure is based on a specific form of division of labour and which essentially plays a part in determining how and to what extent the individual and society interact. Exclusion therefore appears in terms of discrimination, market refusal or unenforceable rights and voluntary conduct. In the monopolization paradigm, various interest groups exert control over the input of available resources, and as insiders determine access to resources and establish barriers to access, for example on goods and labour markets, at the same time fostering solidarity within the respective interest groups. Therefore, the rules limiting membership of the groups represent exclusion mechanisms, which may be of a nature (von Hauff and Kruse, 1994). Exclusion is also based on vulnerability, long-term trends (long-term unemployment) and short-term shocks. This means that poverty goes beyond want or lack to defenselessness, insecurity, and exposure to risk, shocks and stress. This is measured also by participation in the development process, net assets such as investment (human skills and economic assets like animals), stores (money, granaries) and claims (on patrons or the governments).

As von Hauff and Kruse (1994) have noted, there is a current predominance of economic definitions of poverty, and consequently material aspects of poverty alleviation take precedence; the covering of deficiencies in provision is seen as a priority. The view is therefore gradually establishing itself that there is a need for more refined concepts of poverty with more comprehensive understanding of poverty. Thus, explains why some national governments are conceptualizing poverty. For example, in 1992 Germany stated that people affected by poverty are unable "to lead a decent life" and hence "poverty means not having enough to eat, a high rate of infant mortality, a low life expectancy, low educational opportunities poor drinking water, inadequate health care, unfit housing and a lack of active participation in decision-making processes" (Federal Ministry for Economic Co-operation and Development, 1992:13). It is in this sense that Deng (1995) argued that poverty should be conceptualized broadly to have both quantitative and qualitative dimensions and to include political, social and economic dimensions. As a beginning, one can define poverty as a deviation from a normal situation for, say, and individual in the Nigerian society. O'Boyle (1991) articulated this by asking: "What does it means to be a person?" This means to have "basic needs of a normal human being". These basic needs consist of primary and secondary needs. The former comprises of food (including water and clothing) and shelter; and the latter consists of economic, social, cultural, liberty; freedom of expression and religion, individual rights to own property, to have access to productive employment, credit, etc. Primary and secondary basic needs can be met through one's own resources, family, community and/or through a combination of these sources. The lack of these resources leads to a state of powerlessness, helplessness and despair, and thus the inability to protect oneself against economic, social, cultural and political discrimination, deprivation and marginalization (Deng, 1995). Thus, the inability to meet basic primary and secondary needs constitutes a state of poverty. This predicament leads to desperation and hopelessness if the community/society is indifferent to the plight of its poor, which could in turn produce violence, theft, thuggery and other forms of family and social values breakdown and decay. It must be noted that this more comprehensive and quantitative and qualitative conceptualization of poverty is different from the usual primary basic needs approach which is a partial measurement and conceptualization of poverty. Following Deng (1995), therefore, we categorize the following as poor, especially in the Nigerian context:

- Those households or individuals below the poverty level and whose income is insufficient to provide for basic needs;
- Households or individuals lacking access to basic services, political contacts and other forms of support, including the urban squatters and "street" children;
- People in isolated rural areas that lack essential infrastructure such as basic services;
- Female - headed households (especially pregnant and lactating mothers and infants) whose nutritional needs are not being met adequately;
- Persons who have lost their jobs and those who are unable to find employment (such as school leavers and tertiary education graduates) as a result of economic reforms introduced under the structural adjustment programmes (SAPs), that is, those who are in danger of becoming the "new poor".
- Ethnic minorities who are marginalized deprived and persecuted economically, socially, culturally and politically.

2. Poverty and Inequality in Nigerian State

Though Nigeria is one of the most rapidly growing economies in the Sub-Saharan Africa. However, the same nation is apparently struggling to translate its rapid growth into accelerated poverty reduction. Relative to poverty reduction in the rest of Sub-Saharan Africa and other lower-middle-income

countries, poverty reduction in Nigeria has been less responsive to economic growth.

Three factors determine this low responsiveness. First, high growth rates have been accompanied by comparatively high rates of population growth. Second, similar to other resource-rich economies in the developing world, growth does not necessarily translate into more jobs or more opportunities for everyone. Third, inequality has been expanding quickly and has adversely affected poverty reduction.

Compared with other Sub-Saharan African countries, Nigeria is also losing ground on a few key indicators. Nigeria has not done well on indicators such as the rate of accumulation of physical and human capital and in the household access to basic services. Underperforming in these indicators can have a long-term negative impact on growth and can hamper the country's capacity to reduce poverty. Poverty rates declined, but the number of the poor remained unvaried

Poverty declined by about 10 percentage points between 2004 and 2013. Poverty figures computed from the General Household Survey (GHS) data and from 2004 data re-estimated using survey-to-survey techniques support the hypothesis that poverty rates in Nigeria are significantly lower than official estimates based on the 2003–04 Nigeria Living Standards Surveys (NLSSs) and the 2009– 10 Harmonized Nigeria Living Standards Surveys (HNLSSs) (see appendix A). At the national level, per capita poverty rates declined from 46.0 percent in 2004 to 35.6 in 2011 and 36.1 in 2013.3 the two NLSS surveys showed per capita rates of 64.0 and 62.0 percent.

Data show a stagnation in poverty reduction in 2011–13. A set of contemporaneous factors explain this deceleration. Growth in 2012 slowed somewhat relative to the recent past especially in oil, trade, and agriculture. Slower growth in trade and agriculture reflected a combination of fallout from the national strike in January, higher energy prices (tariffs), severe floods, and the expanding security challenges in some parts of the north.

Urban and rural areas reduced poverty at a different pace. Relative to rural areas, urban areas experienced both a significantly lower poverty rate and relevant progress in poverty reduction (table 1.1). Whereas the poverty rate fell by almost half in urban areas after 2004, it barely declined in rural areas, where 50 percent of the population is living below the poverty line. The interpretation of these results is complicated by the fact that the last classification of urban and rural areas in Nigeria dates from 1991. Nonetheless, the results fit well with the findings of official reports that suggest urbanization and urban growth to be a primary driver of poverty reduction in Nigeria. Moreover, the slow progress in poverty reduction in rural areas is consistent with recent trends in agriculture.

Three (3) in the "Nigeria Economic Report" (World Bank 2014), preliminary results on the poverty rate in the country are reported at 35 percent in 2011–12 and 33 percent in 2012–13. In the revision in 2015 (World Bank 2015a), new consumption conversion factors were introduced for nonstandard units collected in 2015. The new conversion factors vary across zones and measure more accurately the quantities of goods and services purchased and produced. The results here were obtained by applying the new conversion factors that will also be used for the GHS pane

Estimates for 2011–14 (World Bank 2014a) suggests that growth in agriculture averaged only 2.3 percent during this period, significantly lower than previous estimates. This is less than the population growth in many areas and thus consistent with stagnation in poverty reduction.

Table 1.1 The Nigeria Poverty Rate, Poverty Gap, and Severity of Poverty in 2004, 2011, 2013

Poverty rate			
	2004	2011	2013
Rural	51.61	46.35	48.49
Urban	34.16	16.69	15.92
Nigeria	46.42	35.64	36.19
Poverty gaps			
	2004	2011	2013
Rural	18.97	14.78	14.8
Urban	10.52	3.83	3.85
Nigeria	16.45	10.82	10.66
Severity of poverty			
	2004	2011	2013
Rural	9.45	6.47	6.16
Urban	4.65	1.33	1.45
Nigeria	8.02	4.61	4.38

Source: *World Bank calculations based on NLSS 2003–04 (estimated) and GHS 2010–11, 2012–13*

Per capita growth did not translate into an increase in real per capita consumption of the same proportion. Converting the data reported in figure 1.6 into 2011 naira-equivalent prices shows that GDP per capita increased by about 46.0 percent between 2004 and 2013, while the variation in mean consumption per capita estimated on household surveys was around 33.0 percent (table 1.2).7 Thus, on an annual basis, GDP per capita grew at about 4.3 percent, while average consumption grew at 3.2 percent. Therefore, for each 1 percent increase in per capita GDP, mean per capita consumption rose by only 0.74 percent. If we look at the median to reduce the contribution of the tails of the distribution, the per capita GDP growth elasticity of mean per capita consumption was even lower, at around 0.4.

Table 1.2. Mean and Median per Capita Expenditure in Nigerian Naira, by Location, 2004, 2011, 2013.

Aggregate			
	2004	2011	2013
Mean	66,921	82,800	88,544
Median	54,565	64,148	63,215
Urban			
Mean	81,638	110,491	113,871
Median	66,773	92,253	86,956
Rural			
Mean	60,688	67,161	73,159
Median	50,232	54,458	52,571

The two surveys cover 2003–04 and 2012–13. To reproduce the GDP per capita variations in the same periods, we averaged the values of 2003 and 2004 and of 2012 and 2013.
Source: World Bank calculations based on NLSS 2003–04 (reestimated) and GHS 2010–11, 2012–13.

The increase in consumption was mainly driven by urban areas. Between 2004 and 2013, mean consumption rose in urban areas at an average annual rate of 3.8 percent, which is about 40.0 percent overall, while growth was at half that level in rural areas. At the median, rural areas have not significantly improved, whereas average consumption in urban areas rose by 21 percent. Particularly worrying is the situation at the end of the period: the median worsened in both urban and rural areas.

The discrepancy between per capita consumption growth and GDP per capita growth is partially explained by the structure of the Nigerian economy, which is unable to trickle down growth to the entire population through more job creation. The oil and mining sector accounted for more than 30 percent of GDP during most of the period, and the oil sector accounts for about 70 percent of government revenues and 85 percent of exports (Ajakaiye et al. 2015) (figure 1.10). Traditionally, this is a sector that does not generate many jobs and often resorts to a foreign labor force. The performance of more labor-intensive sectors up to 2010 was not encouraging; the contribution of manufacturing has been negligible, while agriculture, although it accounted for about 30 percent of the value added, did not see relevant productivity improvement and continued to grow largely because of greater land use (Treichel 2010).

Table 1.4. Shapley Decomposition, Poverty Rate Variation, by Location, Nigeria, 2004, 2013

	2004	2013
Gini	0.356	0.41
Theil	0.217	0.395
Consumption shares		
Decile_01	2.56%	2.71%
Decile_02	4.10%	3.93%
Decile_03	5.25%	4.79%
Decile_04	6.36%	5.70%
Decile_05	7.53%	6.69%
Decile_06	8.85%	7.65%
Decile_07	10.43%	9.10%
Decile_08	12.52%	11.14%
Decile_09	15.81%	14.56%
Decile_10	26.59%	33.72%

Source: *World Bank calculations based on NLSS 2003–04 (reestimated) and GHS 2012–13.*

Only half the per capita consumption growth translated into poverty reduction. Should inequality not have widened, poverty would have dropped 18 points rather than 10 (see table 1.4, second row). The increase in inequality was

particularly detrimental to poverty reduction in rural areas. Without the inequality increase, poverty could have gone down 13 points rather than only 3. Meanwhile, growth translated almost entirely into poverty reduction in urban areas: inequality chipped off only a small 1 percent.

Lower poverty rates and a growing middle class, but also more vulnerable households

An analysis of the entire consumption distribution sidesteps the potential disadvantages of considering only one measure of welfare, the poverty line, to the exclusion of the rest of the consumption distribution. In this section, we introduce an additional cutoff, the middle-class line, and gauge trends in consumption between 2004 and 2013 by looking at shifts in the cumulative distribution. Figure 1.12 presents the full distribution of consumption in real terms in 2004, 2011, and 2013. The horizontal axis represents consumption measured as a percentage of the poverty line. The vertical axis represents the share of the population. Each point on the distribution function thus shows consumption relative to population share and the poverty line. The poverty levels in each of the three survey years can be read from the distribution functions at the point where the function crosses the vertical line that indicates 100 percent of the poverty line. The distribution can also be compared in welfare terms: any distribution appearing to the right of another is statistically dominant and can be considered a welfare improvement.

A profile of the poor, the vulnerable, and middle-class households

Predominantly rural already in 2004, poverty became more highly concentrated in rural areas thereafter; for every poor person in urban areas in 2013, there were nearly five poor people in rural areas (table 1.5). The different rates of growth in urban and rural areas contributed to this concentration (see table 1.2). Average consumption per capita was 35 percent greater in urban areas than in rural areas in 2004 and was 54 percent greater in urban areas in 2013. The share of the poor among rural residents did not change much between 2004 and 2013, but the share of the poor among rural residents decreased. Whereas 71 percent of the total population was living in rural areas in 2004, the share had dropped to 63 percent by 2013. The incidence of poverty is especially high among people living in rural North West. These people accounted for more than 35 percent of the overall poverty rate.

Table 1.5: Profiles of Poor, Vulnerable, and Middle-Class Households, Nigeria, 2004, 2013

	2004			2013		
	Poor	Vulnerable	Middle	Poor	Vulnerable	Middle
Middle						
Household composition						
Mean number of hh members	7.74	5.50	4.22	8.57	6.99	5.51
Mean n. of members aged 0-4	1.10	0.66	0.42	1.28	0.83	0.51
Mean n. of members aged 5-14	2.59	1.58	0.98	2.93	2.00	1.23
Mean n. of members aged 15-64	3.83	3.07	2.63	3.94	3.56	3.29
Mean n. of members aged 65+	0.22	0.19	0.19	0.28	0.26	0.26
Household literacy rate	29.11	40.34	53.85	53.48	70.80	83.35
Household head characteristics						
Female	7.02	12.60	17.22	6.67	12.37	12.30
Male	92.98	87.40	82.78	93.33	87.63	87.70
Mean age of household head	49.78	48.46	47.89	51.24	51.67	51.44
Mean years of education of hh head	7.73	8.33	9.66	4.10	6.81	10.34
Household head is engaged in agriculture	34.67	24.31	14.37	57.98	33.37	16.02
Highest Educational level of hh head						
None/Pre-school	49.74	40.78	27.75	60.64	36.79	20.64
Primary, not complete	4.44	3.88	3.02	5.59	6.23	4.05
Completed primary	19.62	20.71	17.59	17.25	20.22	13.70
Secondary, incomplete	3.72	4.84	5.98	3.34	5.20	3.98
Completed secondary	8.68	14.40	23.81	9.01	18.97	23.42
Post-Secondary technical+	13.80	15.38	21.85	4.16	12.59	34.20
Employment status of hh head						
Public	8.46	10.43	17.18	5.50	12.60	24.57
Private	2.26	3.73	4.74	4.09	7.67	12.08
Self-employed	63.25	62.94	54.93	74.98	68.76	51.35

Own account worker	1.25	2.43	3.67 -		- -	
Other	22.48	16.82	13.39	0.21	0.16	0.05
Unemployed	2.29	3.64	6.10	15.22	10.81	11.96
Region of residence						
North Central	16.84	12.14	7.74	14.70	14.52	8.35
North East	12.07	12.89	9.94	18.00	12.62	6.52
North West	33.50	18.75	10.67	38.98	17.07	9.20
South East	9.12	13.67	15.70	9.01	11.54	14.57
South South	13.76	18.79	24.61	10.63	16.14	25.83
South West	14.70	23.76	31.33	8.69	28.12	35.53
Area of residence						
Rural	78.24	65.69	50.82	83.37	54.37	35.77
Urban	21.76	34.31	49.18	16.63	45.63	64.23

Source: *World Bank calculations based on NLSS 2003–04 and GHS 2012–13.*

Poverty is increasingly a northern phenomenon. In 2013, 57 percent of the poor lived either in the North East or the North West. If we add the poor living in the North Central, 72 percent of poor Nigerians were living in northern zones in 2013 compared with 62 percent in 2004. This is caused by a combination of less favorable climate, distance from the sea, and lack of infrastructure. However, these disadvantages appear to have grown over the last decade to the extent that, whereas both the poverty rate and the absolute numbers of the poor have declined in the populous coastal and central regions, the number of the poor has risen in the North West and the North East since 2004. As a result of these divergent trends, nearly 62 percent of the poor were living in the north in 2004, though the north accounted for only 51 percent of the population. Residence in the north and residence in rural areas, together, accounted for 53 percent of the poor in 2004, but 63 percent of the poor in 2013.

Middle-class households are typically urban and living in the southern zones. This trend has increased in the last decade. In 2004, the share of middle-class households was almost equally distributed among urban and rural areas: 51 percent rural versus 49 percent urban. In 2013, 64 percent of middle-class households resided in urban areas.

Poor households tend to be larger and include higher numbers of dependents than vulnerable and middle-class households. In 2013, poor households had an average 8.6 members, nearly 25 percent more than vulnerable households and almost twice the number in middle-class households. Poor households tend to have more children; half the members are below 14 years of age, and 15 percent are under 5 years of age, while the shares of under-14-year-olds are, respectively, 40 percent and 32 percent among vulnerable and middle-class households.

The heads of poor households are likely to be older men who are self-employed in agriculture. The average head of a poor household in 2004 was 50 years of age, 2 years older than the average head of a vulnerable or middle-class household. There was no such difference in 2013. Households were generally more likely to be headed by a man in both years. The likelihood of being a woman and a household head was the lowest among poor households. There was an increase in self-employed heads among poor households during the period. In 2013, 75 percent of heads of poor households were self-employed (69 percent and 51 percent among vulnerable and middle-class households, respectively) against 63 percent in 2004. The main economic activity of the self-employed was agriculture. In 2013, 75 percent of the heads of poor households working in agriculture were self- employed against 40 percent in 2004.

Households that have no education are more likely to be poor. Among poor household heads, 54 percent had no education or less than completed primary education in 2004. Despite a general improvement in the literacy rate of household heads during the period, the mean years of education of heads of poor households had fallen by half by 2013, raising the share of uneducated poor household heads to 67 percent. Meanwhile, the number of uneducated heads in vulnerable and middle- class households declined during the period, and, by 2013, 34 percent of middle-class household heads had postsecondary educational attainment or more.

In 2013, the majority of the poor still had little access to basic infrastructure, though they did have some connectivity. Poor households reported ownership of durables, such as televisions, refrigerators, stoves, and generators, considerably less often than vulnerable and middle-class households. This may be related to the scarce availability of electricity in poor dwelling units (34 percent) compared with vulnerable (67 percent) and middle-class households (84 percent). As a means of transport, the poor were mainly relying on bicycles (28 percent) and motorcycles (36 percent);

only 4 percent owned a car. A majority of poor households used firewood for cooking (92 percent) and candles and batteries as the main source of lighting (49 percent). Improved sanitation was still a challenge among poor households: 53 percent of poor households used uncovered pit latrines as a main toilet facility, and 42 percent reported they relied on unimproved water sources as the main source of water. This is in contrast to the availability of services among middle-class households: 73 percent used electricity or gas as the main lighting fuel; 65 percent relied on fuels other than firewood for cooking; 56 percent on flush toilets; and 63 percent on improved sources of water.

Vulnerable and middle-class households perform differently on a series of nonmonetary indicators. In educational attainment, vulnerable household heads were about as close to poor household heads as to middle-class household heads: 43 percent of the heads of vulnerable households had less than primary education, compared with 25 percent among heads of middle-class households and 67 percent among heads of poor households. Sector of employment also differ.

Heads of Vulnerable households were more likely to be employed in agriculture (33 percent) than middle-class household heads (16 percent), and, while 25 percent of the heads of middle-class households are employed in the public sector, only 13 percent of vulnerable household heads are so employed. There were also geographical differences. Among vulnerable households, 44 percent are located in the northern zones, against 24 percent among middle-class households. While 54 percent of vulnerable households live in rural areas, only 36 percent of middle-class households do so. Among the former, 67 percent have electricity in the dwelling, against 84 percent of the latter. Among vulnerable households, 47 percent still use uncovered pit latrines as a main toilet facility, and 33 percent use unimproved water sources, against 27 percent and 24 percent, respectively, among middle-class households.

In poverty reduction, progress in nonmonetary indicators is slower in Nigeria than in other Sub-Saharan African countries.

The concept of welfare is much broader than reductions in poverty and greater consumption among the less well off. The analysis has so far been concerned with the progress registered in monetary indicators of welfare. Monetary indicators alone do not provide a complete picture. The nonmonetary dimensions of deprivation are also important. Empirical evidence from across all regions of the world highlights that the disadvantages in the accumulation of human capital and in access to services—inequality of opportunity—are pervasive, exacerbate income inequality by limiting the potential of individuals from birth, and may have long-term negative impacts on the potential for economic growth and poverty reduction within countries. Across these dimensions, this section presents evidence on the welfare benefits of early childhood development, mother and child health, comprehensive education, and access to basic services, and it compares Nigeria with other African countries in these dimensions.

Most early childhood development and maternal health indicators have improved in Nigeria, but other African countries have done significantly better. The under-5 mortality rate in Nigeria, for instance, was still 128.6 per 1,000 live births in 2013 (table 1.6). This was more than double the rate in Kenya, Rwanda, Senegal, and Tanzania and far from Nigeria's 2015 target rate of 63.7 deaths per 1,000 live births (OSSAP-MDGs 2013). Likewise, the maternal mortality ratio decreased from 1,040 per 100,000 live births in 2003 to 821 in 2013, but was still the highest ratio among the selected countries and higher than the Sub-Saharan African average of 573. Stunting and malnutrition rates have not significantly improved for more than a decade, and almost one-third of Nigerian children are trapped in development deficiencies.

Table 1.6: Anthropometric Indicators, Nigeria and Selected Countries, 2003, 2013

Countries	*Under-5 mortality rate (per 1,000)*		*Maternal mortality ratio (per 100,000 live births)*		*Stunting (height-for- age below 2 SDs)*		*Malnutrition (weight- for-age below 2 SDs)*		*Vaccination*		*Prevalence of HIV, total (% of population ages 15–49)*		*Health expenditure, total (% of GDP)*	
	2003	*2013*	*2003*	*2013*	*2003*	*2013*	*2003*	*2013*	*2003*	*2013*	*2003*	*2013*	*2003*	*2013*
Nigeria	201.0	128.0	1,040	821	38.3	36.8	28.7	28.7	12.9	25.3	3.7	3.3	4.0	3.7
Kenya	95.4	53.4	768	540	35.7	35.3	15.8	16.1	51.8	68.3	7.9	5.4	4.4	5.6
Ethiopia	124.8	64.6	814	410	50.8	44.4	41.2	28.7	20.4	24.3	2.6	1.2	4.6	5.2
Ghana	91.3	66.5	420	321	—	28.0	—	13.9	69.4	79.0	2.2	1.5	3.1	4.6
Rwanda	139.4	47.8	770	318	51.1	44.2	19.5	11.4	75.2	90.1	4.3	2.9	6.3	7.7
Senegal	112.5	52.5	462	335	19.6	18.7	14.2	15.7	58.7	70.2	0.9	0.6	5.4	4.5
Tanzania	106.9	53.3	747	438	44.3	42	16.4	15.8	71.1	75.2	7.4	5.5	4.1	5.6
Uganda	124.2	60.3	558	372	44.8	33.4	15.9	13.8	46.2	51.6	6.4	7.2	7.5	7.5

South Africa	78.1	43.4	102	145	—	—	—	—	—	—	17.5	18.8	8.3	8.8
Sub-Saharan Africa, Developing only	138.3	89.2	774	573	—	—	—	—	—	—	5.6	4.6	—	—

Sources: Data (database), DHS Program (Demographic and Health Surveys), ICF International. Rockville, MD (accessed January–April 2016), http://www.dhsprogram.com/Data/; WDI (World Development Indicators) (database), World Bank, Washington, DC (accessed January–April 2016), http://databank.worldbank.org/data/reports.aspx?source=world- development-indicators.
Note: The years indicated refer to Nigeria. For other countries, data for the same years are shown if available; otherwise, the oldest and newest available data between 2000 and 2013 are indicated. SD = standard deviation. — = not available.

Improvements in the education sector were also sluggish. The gross enrollment ratio in primary schools in Nigeria in 2010 was 84.7 percent, which is the second lowest ratio among the countries in table 1.7 after Senegal. Nigeria performs 13.7 percent below the 98.4 percent average gross enrollment ratio in primary schools in developing countries in Sub-Saharan Africa. Moreover, the ratio declined by more than 10 percent in Nigeria between 2002 and 2010, while it improved in most of the other countries. The gross enrollment ratio in secondary school rose in Nigeria from 29.4 percent in 2002 to 43.8 percent in 2010, but it is still below the corresponding ratio in Ghana, Kenya, and South Africa. Education expenditure is the lowest (0.9 percent of gross national income) among the selected countries. This was only a third of the average education expenditure in Sub-Saharan Africa, which was 3.3 percent of gross national income in 2013, and the rate in Nigeria did not change during the decade. The poor input is associated with poor output. The literacy rate among women in Nigeria was only 53.1 percent, while in Kenya and Rwanda, the rate exceeded 80.0 percent. Many challenges in both input and output in education are persistent in the country.

Table 1.7: Education Indicators, Nigeria and Selected Countries in Africa, 2002–13

Countries	*Gross enrollment ratio, primary (%)*		*Gross enrollment ratio, secondary (%)*		*Adjusted net enrollment rate, primary (%)*		*Pupil–teacher ratio in primary education (headcount basis)*		*Education expenditure (% of GNI)*		*Women who are literate (%)*	
	2002	*2010*	*2002*	*2010*	*2004*	*2010*	*2002*	*2010*	*2003*	*2013*	*2003*	*2013*
Nigeria	97.6	84.7	29.4	43.8	67.6	65.7	40.3	37.6	0.9	0.9	48.2	53.1
Kenya	91.9	116.1	41.0	67.6	74.3	86.2	34.4	56.6	6.1	4.9	78.5	84.9
Ethiopia	63.6	92.0	18.6	34.8	50.3	74.4	62.3	54.1	2.6	2.9	24.4	38.4
Ghana	83.7	108.5	41.0	61.1	59.6	86.8	32.1	31.7	6.4	5.8	54.9	62.9
Rwanda	114.2	142.3	11.6	32.8	82.0	96.1	59.0	64.6	3.7	4.3	66.1	80.2
Senegal	70.9	81.9	17.4	35.6	62.7	70.2	48.9	33.7	3.2	5.2	34.6	39.0
Tanzania	88.5	99.0	—	31.1	85.1	89.1	53.0	50.8	3.2	3.7	67.3	72.2
Uganda	138.0	120.3	19.5	27.1	93.6	93.8	52.7	48.6	3.5	2.0	57.8	64.2
South Africa	103.2	96.3	87.2	90.3	89.8	88.1	35.3	32.7	4.9	5.9	—	—
Sub-Saharan Africa (developing only)	87.0	98.4	28.9	40.6	68.6	76.8	43.9	43.4	3.7	3.3	—	—

Sources: Data (database), DHS Program (Demographic and Health Surveys), ICF International. Rockville, MD (accessed January–April 2016), http://www.dhsprogram.com/Data/; WDI (World Development Indicators) (database), World Bank, Washington, DC (accessed January–April 2016), http://databank.worldbank.org/data/reports.aspx?source=world- development-indicators.
Note: The years indicated refer to Nigeria. For other countries, data for the same years are shown if available; otherwise, the oldest and newest available data between 2000 and 2013 are indicated. GNI = gross national income. — = not available.

3. Conclusion

The report concludes with a preliminary policy road map that can help the new government identify a comprehensive set of policies to address some of the structural problems the country is facing. Two sets of policies are proposed: distribution-blind interventions and poverty- targeted interventions. Among the distribution-blind interventions, priority should be given to those aimed at diversifying the Nigerian economy away from oil. Rapid diversification in growth and more job creation in Nigeria depend on the twin forces of industry and service-driven wages in urban areas and agricultural productivity in rural areas. Policy interventions should thus focus on increasing the number of jobs in the modern private sector, boosting the productivity of traditional economic sectors, and fostering the occupational and geographical mobility of workers.

The poverty-targeted interventions could, on the other hand, directly reduce the gap between the southern and northern zones by tapping the potential of the northern zones. The first set of policy interventions pertains to the demographic dividend. Nigeria, particular the north, needs to implement policies aimed at generating the kind of demographic dividend that has played an important role in the growth of East Asia and other

economies. The second set is directed toward the provision of basic services and infrastructure. Reducing the north-south divide requires a renewed effort to expand the supply of basic services, ranging from education to water and sanitation, and basic infrastructures, such as secondary roads and electricity. Finally, great emphasis should be put on constructing a social safety net system at the federal level. If well targeted, social protection can help reduce the inefficiencies in the allocation of resources and boost the productive potential of individuals and communities by breaking the vicious circle that links inequalities in income and opportunity across generations.

It appears increasingly likely that the household consumption of Nigerians was underestimated in the 2009–10 HNLSS. A World Bank report of 2013 raised the hypothesis that consumption may have been significantly underestimated in the 2009–10 NHLSS (World Bank 2013). This report notes a strange decline in reported monthly consumption in early 2010 relative to the second half of 2009 that would seem to have little economic rationale. This decline did correlate with some technical difficulties experienced during the implementation of the household survey in 2010.

The current report provides a reassessment of the poverty trends in Nigeria based on recently available data. The report makes use of new data of the National Bureau of Statistics that became available from two smaller (5,000 households) General Household Survey (GHS) panels conducted in 2010–11 and 2012–13. The GHS panel survey is largely representative at the macro-regional level in the same sense as the HNLSS. It is not representative across Nigerian states, however. There are also important differences in methodology—discussed in the data section and that prevent the direct comparison of results from the GHS with the HNLSS.

Unlike the official figures that indicate a poverty rate stubbornly above 60 percent, the new data show a decline by 10 percentage points from about 46 percent in 2004 to 36 percent in 2013. Also, the new data offer a clearer and more consistent story of growth and poverty reduction in Nigeria relative to previous data. Poverty rates are more in line with the per capita gross domestic product (GDP), both the old level and the rebased level, and it appears that the rapid GDP growth made a dent in poverty, whereas, in the old data, there was no significant impact of growth on poverty.
The new estimates also suggest that the divide between the north and the south of the country in poverty levels and trends in poverty reduction is significant. Based on this evidence, the report attempts to look at Nigeria not as a monolithic country, but, rather, to allow the substantial differences between parts of the country emerge. Nigeria presents some complex development challenges; this complexity is accentuated by the absence of a one-size-fits-all solution. While parts of the South West and South South states illustrate characteristics of a middle-income country and achieved important results in poverty reduction, several northern states are still afflicted by deep poverty and violent conflicts. In terms of policy intervention, this implies that, whereas the more dynamic states are mainly constrained by the lack of infrastructure and an unfavorable business climate, the poorer states face a more complicated set of challenges.

The main caveat of the present report is that it only covers the period from 2004 to 2013; new survey data (the GHS panel, round 3) will start to be available at the end of 2016. It is worth mentioning this since the scenarios that the Nigerian economy is currently facing are different from those of the past decade. Between 2004 and 2013, Nigeria enjoyed high rates of growth. The growth was driven by a few growth poles concentrated in coastal areas and around the capital, Abuja, and a limited trickle down to the rest of the country. In 2015, the economy grew at only 2.7 percent compared to 6.3 percent in 2014. This decline was driven by decelerating growth in the nonoil sector and a larger contraction in the oil sector. As a consequence, fiscal revenues dropped significantly, and this greatly affected Nigerian states. State governments are heavily dependent on federal transfers, which mostly consist of oil revenue distributed from the federation account (on average, almost 85 percent of state revenues come from federation account allocations), and face greater borrowing constraints than the federal government because most states have accumulated arrears, some in excess of six months

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Assessment of Groundwater Quality around a Cement Factory in Ewekoro, Ogun State, Southwest Nigeria

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Abstract. Samples of groundwater from hand dug wells and boreholes in Ewekoro, Ogun State and its environs were collected and analysed for various physicochemical parameters and some metal ions such as lead, copper, iron, manganese and zinc. Also, an independent sample test of the wells and boreholes close to the Cement Factory around that area was carried out. The qualities of groundwater were determined by investigative study which involved the determination of some heavy metals and physicochemical properties in drinking water samples. Eight (8) samples of ground water were collected from the eight sampling sites. The samples were analysed for the following parameters; iron, copper, manganese, zinc, lead, color, dissolved solids, electrical conductivity, pH, dissolved oxygen (DO), biological oxygen demand (BOD), chemical oxygen demand (COD), temperature, turbidity and total hardness using standard methods. The test results showed the variation of the investigated parameters in the samples as follows: temperature 26-31^{o}C, pH 5.9-7.2, electrical conductivity (EC) 0.37 – 0.78 µS/cm, total hardness 181.8 – 333.0 mg/l, turbidity 0.00-0.05 FTU, colour 5-10 TCU, dissolved oxygen 4.31-5.01 mg/l, BOD 0.2-1.0 mg/l, COD 2.0 -4.0 mg/l, Cu 0.04 – 0.09 mg/l, Fe 0.006-0.122 mg/l, Zn 0.016-0.306 mg/l, Mn 0.01-0.05 mg/l and Pb < 0.001 mg/l. The concentrations of some of the investigated parameters in the drinking water samples from the research region were above the permissible limits of the World Health Organization standard for drinking water quality guidelines. The dissolved oxygen was found to exceed 5.0 mg/l which is the WHO permissible limit, Also Limestone was found to exceed the WHO maximum limit of 170 mg/l. All the above results confirmed the high pollution of the ground water sources and hence, they are not suitable for consumption without any prior treatment.

Keywords: Groundwater, Quality, Heavy metals, parameters.

1. Introduction

Groundwater and surface waters are critical sources of water for human existence and industrial development around the world. The composition of the recharge components, as well as geological and hydrological fluctuations within the aquifers, regulates the chemistry of ground and surface water [1]. The spread of epidemics and chronic diseases in humans is caused by contaminated groundwater and surface water sources. The loss of our groundwater resources is due to industrialization and population growth [2]. Understanding and evaluating the suitability of groundwater for various applications require more knowledge. For ultimate application and management, knowledge of water-rock interaction as well as anthropogenic influence is required. Groundwater quality refers to the physical, chemical, and biological characteristics of the water [3]. Physical water quality parameters include temperature, turbidity, colour, taste, and odour. The chemical properties are an issue because most groundwater is colourless, odourless, and tasteless. Mineral ions are naturally present in groundwater, and as the water flows through mineral surfaces in the pores or fractures of the unsaturated zone and the aquifer, these ions progressively dissolve from soil particles, sediments, and rocks. Some of the dissolved solids could have come from rainwater or river water that recharges the aquifer. However, human activities such as mining, the discharge or spread of chemicals and microbiological matter at the land surface and into soils, and the injection of pollutants directly into groundwater can all alter the natural composition of groundwater.

Cement plants are notorious for releasing a lot of dust into the environment. Emitted dust is naturally removed from the earth's surface as deposits in the form of dry or wet deposition during rainfall [4]; [5]. The harmful effects of dust fall, which is characterized by enriched toxic heavy metals such as arsenic (As), lead (Pb), nickel (Ni), chromium (Cr), copper (Cu), zinc (Zn), manganese (Mn), and cadmium (Cd), on the soil, flora, and fauna of the cement factory neighbourhood, could be significant [6]; [7]

Water can be contaminated with contaminants regardless of the form in which it is found. As a result, water quality analysis is a critical issue that must be addressed. These wastes (pollutants) degrade the natural quality of the environmental media (air, water, and land), impacting plant, animal, and human life. Because of the evidence of heavy metal toxicity to human health and biological processes, water pollution by heavy metals has become a major public and scientific problem [8]. The factory's dust emissions have harmed not only the environment but also the water in open wells, which has been contaminated by cement dust deposition. Residents of the neighborhood surrounding the cement mill rely on these wells for drinking water and other household needs. This should be cause for worry because cement dust penetration may cause unwanted changes in water quality. Water quality has an impact on people's health, thus testing water for physical, biological, and chemical qualities, as well as trace element levels, is critical for public health investigations [9]. Furthermore, according to [10], cement dust can change the salt content of water, causing major disruption of aquatic populations as well as lowering the quality of water used for drinking. As a result, the existing state of the groundwater near the cement factory necessitates research to assess the health risk to individuals who rely on groundwater for drinking and other domestic purposes.

2. Research Methodology

2.1 Materials

2.1.1 Sample Collection

The procedures for determining water quality are varied and intricate. These procedures are similar to a chain of roughly a dozen links, and the failure of any one of them can compromise the entire evaluation. As a result, creating a one-of-a-kind operation necessitates a careful evaluation of the water quality assessment's particular goals. Groundwater samples from hand-dug wells and boreholes in the industrial regions were gathered for this investigation. A 2.5L keg was used to collect samples for physical and chemical examination, and ice packs were used to keep them cold.

2.2 Methods

2.2.1 Preparation of Aqueous Stock Solutions

All chemicals used are of analytical grade. All solutions used for this analysis were prepared by dissolving the appropriate amount in distilled water. Distilled and deionized water were used to prepare the solutions.

2.2.1.1 Iron Solution

Iron $FeCl_3.6H_20$ (0.483g) was weighed and dissolved in distilled water in a volumetric flask.
Thus gives a specific amount of standard solution.

2.2.1.2 Copper Solution

This was prepared by dissolving an amount of $Cu(NO_3)_2.3H_2O$ (0.5g) in concentrated HNO_3 to make up 1000.00 cm^3 with distilled water giving 1000.00mg/l copper solution.

3. Result and Discussion

3.1 Physicochemical Parameters

Tables 1 and 2 present the results of the physicochemical parameters analysis for hand-dug wells and borehole water samples from Ewekoro. Each table compares the concentration of the physicochemical parameters to the WHO standard for drinking water as well as the Nigerian Standard for Drinking Water.

3.2 Heavy Metals Comparison in Water Samples

Figures 4.2 shows, the comparison of copper, iron, lead, zinc and manganese metals concentrations in the water samples to the maximum limit set by WHO/SON.

3.3 WHO Standard for Heavy Metals

Table 3 shows WHO standard for heavy metals.

3.4 Sample locations and Elevations

Table 4 shows the longitude and latitude of the sample sites and their elevation away from the midpoint

Table 1: Values of physicochemical parameters (Non-metals) for wells and borehole water samples compared with WHO standard and SON for the sample site

S/N	Parameters	WHO	SON	S1, North HW	S2, North HW	S1, West HW	S2, West HW	S1, South BH	S2, South BH	S1, East HW	S2, East HW
1	Temp	**30.0**	**30.0**	31.0	30.0	**29.0**	**29.0**	**26.0**	**27.0**	**28.0**	**28.0**
2	**pH**	**6.59.5**	**6.58.5**	7.0	7.2	7.2	6.2	6.7	5.9	6.1	5.8
3	**E.Cond(µS/cm)**	**810,000**	1000	0.78	0.69	0.54	0.37	0.70	0.37	0.44	0.48
4	**Turbidity (NTU)**	5.0	5.0	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01
5	**T. Hard (mg/l)**	**500.0**	150	333.0	**242.4**	**181.8**	**212.0**	**202.0**	**206.0**	**212.0**	**260.0**
6	**D.O (mg/l)**	**5.0**	**5.0**	5.01	4.36	4.80	4.31	4.72	4.40	5.11	4.02
7	**C.O.D (mg/l)**	**10.0**	**10.0**	4.0	2.7	2.0	2.3	2.4	3.1	2.7	3.5
8	**B.O.D (mg/l)**	**3.0**	**3.0**	<1	2	<1	<1	1	<1	1	<1
9	**Colour (TCU)**	**3-15**	15	**10.0**	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
10	**Limestone**	120-170	120-170	300.3	84.2	263.9	91.0	227.5	81.9	82.0	63.7
11	**D.S (mg/l)**	**500.0**	500	**103.5**	**73.7**	**61.4**	**50.5**	**45.8**	**53.1**	**73.7**	**45.8**

Table 2: Values of physicochemical parameters (Metals) for wells and borehole water samples compared with WHO standard and SON for the sample site

S/N	Parameters	WHO	SON	S1, North HW	S2, North HW	S1, West HW	S2, West HW	S1, South BH	S2, South BH	S1, East HW	S2 East HW
1	**Cu (mg/L)**	**2.0**	1.0	**0.09**	**0.06**	**0.04**	**0.05**	**0.09**	**0.09**	**0.07**	**0.06**
2	**Fe (mg/L)**	**0.3**	**0.3**	0.006	0.007	0.051	0.122	0.051	0.009	0.005	0.007
3	**Zn (mg/L)**	**4.0**	**3.0**	0.306	0.135	0.016	0.108	0.197	0.158	0.285	0.127
4	**Pb (mg/L)**	**0.01**	**0.01**	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
5	Mn (mg/L)	**0.1**	**0.2**	**0.05**	**0.03**	**0.01**	**0.03**	**0.02**	**0.03**	**0.02**	**0-01**

Table 3: WHO Standard for Heavy Metals

S/N	**Metals**	Highest desirable limit (mg/l)
1	**Copper**	**2.000**
2	**Iron**	**0.300**
3	**Manganese**	**0.100**
4	**Lead**	**0.010**
5	**Zinc**	**4.000**
6	**Nickel**	**0.020**
7	**Chromium**	**0.050**
8	**Cadmium**	**0.030**
9	**Arsenic**	**0.050**
10	**Barium**	**0.050**

Table 4: The longitude and latitude of the sample sites and their elevation away from the midpoint

Location	**Longitude**	**Latitude**	**Elevation**
North 1	N 06□ 53’ 853’’	E 003□ 12’ 179’’	37^{m}
North 2	N 06□ 53’ 853’’	E 003□ 12’ 227’’	37^{m}
South1	N 06□ 53’ 645’’	E 003□ 12’ 036’’	46^{m}
South2	N 06□ 53’ 464’’	E 003□ 12’ 975’’	38^{m}
West1	N 06□ 53’ 579’’	E 003□ 12’ 044’’	37^{m}
West2	N 06□ 53’ 436’’	E 003□ 12’ 952’’	37^{m}
East1	N 06□ 53’ 880’’	E 003□ 12’ 144’’	34^{m}

East2	N 06□ 53’ 851’’	E 003□ 12’ 130’’	36m

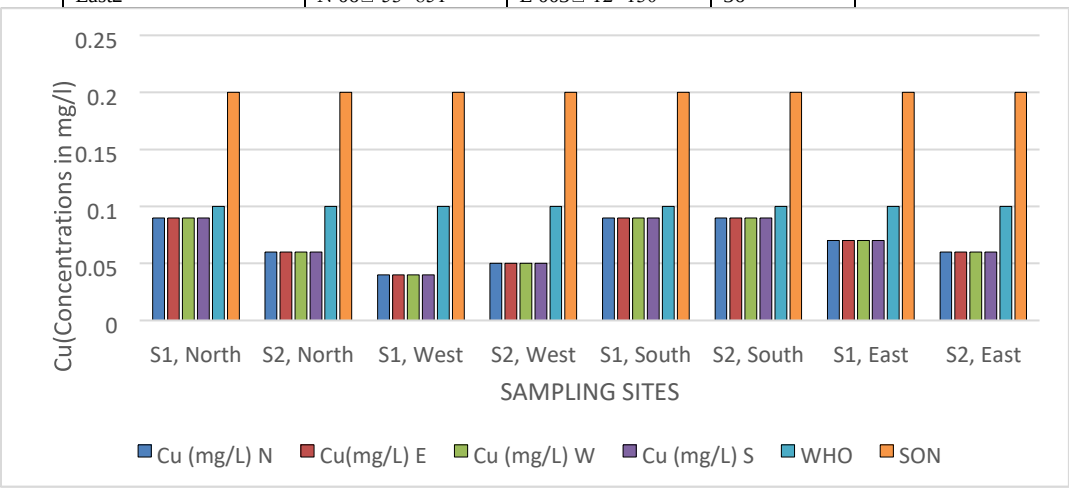

Figure 2: A comparison of the copper concentrations (mg/L) in water samples and the maximum limit set by WHO and SON for the various sampling sites

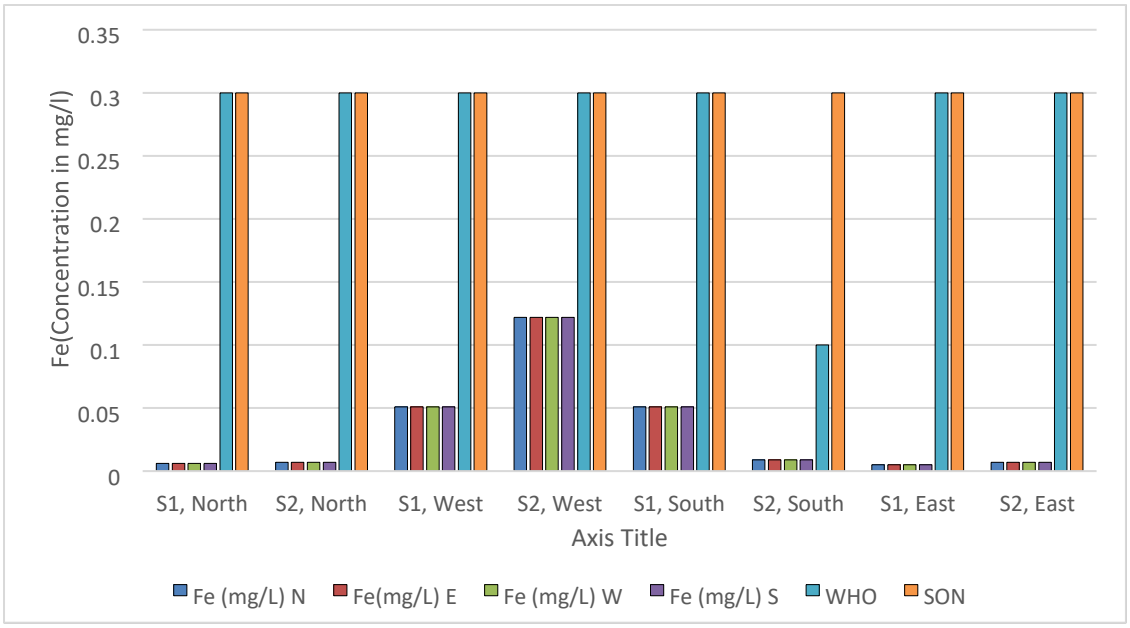

Figure 3: A comparison of the IRON concentrations (mg/L) in water samples and the maximum limit set by WHO and SON for the various sampling sites.

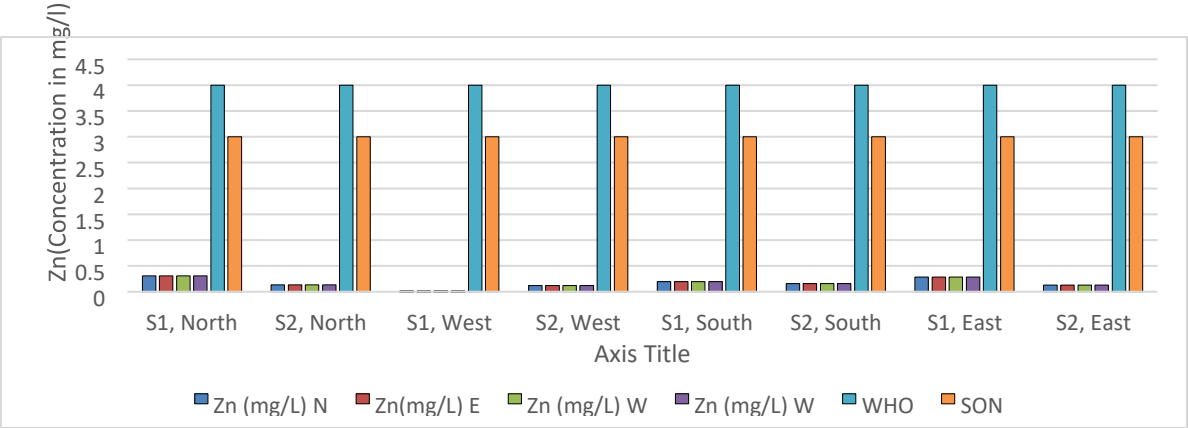

Figure 4 : A comparison of the ZINC concentrations (mg/L) in water samples and the maximum limit set by WHO and SON for the various sampling sites

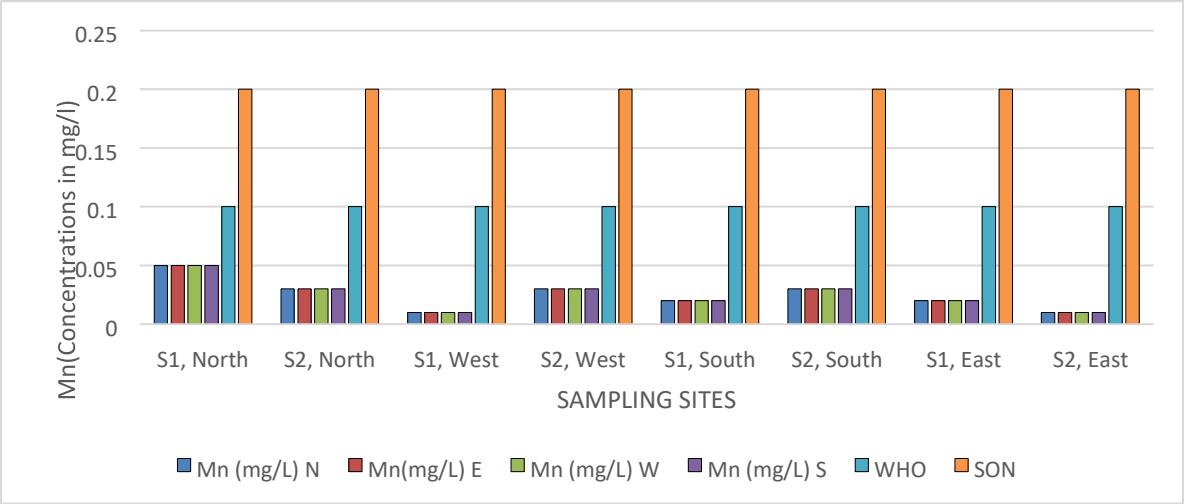

Figure 5: *A comparison of the Manganese concentrations (mg/L) in water samples and the maximum limit set by WHO and SON for the various sampling sites*

The findings of several analyses on the physicochemical parameters of groundwater samples, as well as their comparison with World Health Organization (WHO) standards and the Nigerian Standard for Drinking Water are shown in Tables 1 and 2. The tables present the values of the parameters determined in this study, as well as the recommended standards.

3.5 pH and Temperature

The pH fluctuated between 5.8 and 7.2 pH units. With the exception of samples 1 and 2 from the East of the midpoint, sample 2 from the South, and sample 2 from the West, all other samples were within the WHO portable water range. The pH value indicates that the well waters in the exceptional places are slightly acidic. pH values less than 6.5 are considered too acidic for human consumption and can cause health issues such as acidosis, which can harm the digestive and lymphatic systems. The water temperatures measured at the various sites during the sample period did not differ considerably. Temperatures varied from 26 to 31 degrees Celsius. With the exception of Sample 1 from the North, this could be owing to the sampling season, as ground water pollution may have happened. All other temperature readings are under WHO and SON drinking water limits. Temperature is an important component in aquatic ecosystems because it influences water creatures as well as the physical and chemical properties of water. The results are within the WHO drinking water standard's allowable range.

3.6 Conductivity and Dissolved Solids

The conductivity of the water samples ranged between 0.37 and 0.78 S/cm. All other values fell outside of the WHO regulation range of 8-10,000 µS/cm. The concentration of dissolved solids affects conductivity (DS). TDS can be calculated by multiplying conductivity by a value ranging from 0.55 to 0.75,

according to Chapman (1992). Given these low conductivity levels, it's not unexpected that the DS, which measures the amount of dissolved solids in water, is also low. As a result, the DS ranged from 45.8 to 103.5 mg/L for the research. The WHO has not established a health-based value; nonetheless, a DS beyond 1,000 mg/L may be unpleasant to consumers (Amoako *et al.,* 2011).

3.7 Turbidity

The turbidity ranged from 0 to 0.05 NTU. The turbidity of all samples was less than 5.0 NTU. The WHO and SON recommend a turbidity level of 5 NTU in drinking water. Smaller particles, organic materials and dissolved solids, may be responsible for the low turbidity.

3.8 Dissolved Oxygen, Chemical Oxygen Demand and Biological Oxygen Demand

Dissolved oxygen (DO) levels in milligrams/litre ranged from 4.02 to 5.11. The WHO has established a provisional health-based recommendation value for DO of 5.0 mg/L, which should be sufficient to preserve public health (WHO, 1995). Dissolved oxygen (DO) is essential for aquatic organism viability and is also used to determine the degree of freshness of a river. Except for sample 1 from the East, the measured value was lower than the WHO norm.

Very low DO levels can lead to anaerobic conditions, which can generate foul odors in water. Low DO levels can be caused by decomposing organic matter, dissolved gases, industrial waste, mineral waste, and landfill leachate. Chemical oxygen demand (COD) is one of the water quality metrics used to determine a water resource's oxygen consumption potential. The COD levels in the water samples ranged from 2.0 to 4.0 mg/L. All samples from the sites were found to be below the WHO's maximum permitted value of 10 mg/L. The test is often used to assess the amount of organic compounds in water in an indirect manner. COD is a helpful indicator of water quality since most uses of COD quantify the quantity of organic contaminants detected in surface water (Clair, 2003) Biological oxygen consumption: The minimum and highest values for biological oxygen demand derived from hand dug wells and borehole water samples at the four distinct study sites range from (0.2-2.0mg/L) in Tables 1. WHO determined that they were below the maximum allowed amount (3 mg/L). The amount of oxygen required by microbes to stabilize physiologically oxidizable materials is represented by the BOD.

3.9 Total Hardness

The minimum and maximum total hardness values collected from hand dug wells and borehole water samples at the four distinct sampling sites in Ewekoro and its surrounds, as shown in Table 1, were 181.8 – 333.0mg/L, which is less than the WHO (500 mg/L) acceptable limits for drinking water.

3.10 Color

The minimum and maximum values for color obtained from the hand dug wells and boreholes water samples at the four different sampling sites in Ewekoro and its environs shown in Table 1 were 5 – 10 TCU which is below the WHO (3–15TCU) permissible limits for drinking.

3.11 A Comparison of the Concentrations of Metal ions in Water and WHO Maximum

3.11.1 Permissible Limit

The results obtained for the concentrations of metals ions (Cu, Mn Fe, Pb and Zn) in the Water samples collected from different hand dug wells and boreholes, was compared with the WHO maximum permissible limit. The results are presented as a bar chart in chapter four.

3.11.1.1 Copper

The concentrations of copper obtained from the hand dug well sand boreholes water samples at the different sampling sites in Ewekoro as shown in Table 2, ranges from 0.04 mg/L to 0.09 mg/L. The maximum permissible limit by WHO is (2.0 mg/L). Copper is an essential nutrient, but at high dosage, it has been shown to cause stomach and intestinal distress, liver, kidney damage, and anemia (US EPA, 2003).

3.11.1.2 Iron

Because iron is ubiquitous in many aquifers and is found in trace amounts in almost all sediments and rock formations, most groundwater contains some iron. The iron concentrations obtained from hand dug wells and borehole fluids at the several sampling sites in Ewekoro range from 0.006 mg/L to 0.122 mg/L, as shown in Table 2, WHO's maximum allowable value for iron is 0.3mg/L.

3.11.1.3 Manganese

The concentration of manganese metal ions obtained from hand dug wells and borehole waters at the

various sampling sites in Ewekoro, as shown in Table 2, ranges from 0.01-0.05mg/L, which is lower than the WHO maximum permissible limit (0.10mg/L). Manganese imparts a bitter taste to water, stains cloths and metal parts, and precipitates in foods when used for cooking, and it also promotes algae growth in reservoirs.

3.11.1.4 Zinc

At a taste threshold concentration of roughly 4mg/litre, zinc imparts an unpleasant astringent flavor to water (as zinc sulphate). The levels of zinc metal ion obtained from hand dug wells and borehole water samples at the sampling sites in Ewekoro range from 0.016 to 0.306 mg/L, as indicated in Table 2 whereby WHO's maximum allowable value is (4.0 mg/L). The level of dissolved zinc in water may increase as the acidity of the water increases; swallowing large levels of zinc can cause stomach cramps, nausea, vomiting, anemia, pancreatic damage, and a drop in high density lipoprotein cholesterol levels.

3.11.1.5 Lead

The lead concentration in the samples is less than 0.001, which is less than the WHO recommendation limit of 0.01mg/L. These findings suggested that the well fluids are not suitable for human consumption because lead in low concentrations, can be hazardous to the human system. It is critical to determine the influence of these contaminants to water quality.

4. Conclusion

The results of the above work showed that most of the physicochemical parameters e.g. total alkalinity, total hardness, turbidity, dissolved oxygen, biological oxygen demand, electrical conductivity, sulphate, phosphate, copper, and iron were respectively within the acceptable limits of WHO's recommended. However, pH, lead, nitrate, manganese, zinc, were mostly found to exceed the maximum permissible limit as recommended by WHO at some study sites, further analysis showed that there is an equal amount of manganese in the four sites. Sample 1 in the North collected from a hand dug well showed the highest case of heavy metals compared to the remaining sites. Dissolution of rock minerals with the ground water is a possible reason for pollution. All the above results confirmed the high pollution of the ground water sources and hence, they are not suitable for consumption without any prior treatment.

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Part Two

Human Resource Management

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Effect of Staff Motivation on Job Performance: A Study of Igbinedion University Teaching Hospital, Okada, Edo State, Nigeria

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Abstract. This study assesses the effect of staff motivation on job performance at Igbinedion University Teaching Hospital (IUTH) in Okada. with a focus on the healthcare sector, this research investigates the extent to which various motivational factors influence the job performance of employees within the hospital setting. The quantitative survey approach was employed to gather comprehensive insights into the subject matter. quantitative data was collected through a semi-structured questionnaires distributed to hospital staff, including doctors, nurses, administrative personnel, and support staff. The study also utilized the primary and secondary sources of data. the Statistical Package for Social Sciences (SPSS 23.0) programme was used to analyze the quantitative data. the results of the study were presented through a descriptive analysis using frequencies counts and percentages. The findings of this study established that established that employees are very satisfied with the opportunities that their job provided for creativity and problem solving. the result also established that the overall job performance of employees over a period of a year has either been good or outstanding. the study also established that established that employees are either satisfied or very satisfied with the additional responsibilities assigned through job enlargement to them. it was also deduced from the result that job enlargement has improved employees job satisfaction in the study area. the study found that employees of Igbinedion University Teaching Hospital, Okada are either dissatisfied or very dissatisfied with your current level of pay and this has much effect on employees' job performance. The study concludes that there is an intricate relationship between staff motivation and job performance within the context of Igbinedion University teaching hospital (IUTH) in Okada. to this end, the study therefore recommends that there should be a transparent channel for addressing staff concerns, grievances, and feedback. encourage open dialogue between management and employees to identify and address any issues or challenges affecting motivation and job performance promptly.

Keywords: Absenteeism, Job Enrichment, Management, Motivation, Moonlighting.

1. Introduction

Globally, organizations are constantly seeking methods to enhance their performance and achieve their goals in the present cutthroat business environment. One major factor that is essential to an organization's performance is employee motivation (Yarma, 2018). Employee motivation has long been recognized as the cornerstone of effective management since it significantly improves job performance and overall productivity (Vo et al., 2022). an important element in an organization's success is workplace motivation since it encourages effective performance from its staff. employers rely on the performance of their workforce to meet organizational goals (Gabriel & Bill, 2022). even if they have the ability to work, people who lack the proper incentives do poorly. as a result, employers prefer to deal with those who are motivated to fulfill their commitments rather than those who simply show up for work. organizational psychology's study of work motivation is crucial because it explains the motives that drive people's actions at work. through research on the factors that motivate employees at work, a theoretical framework for comprehending the causes of interpersonal and social situations that enhance people's performance and well-being has been developed. the zeal, commitment, and innovation that employees of a company bring to their work are

known as organizational motivation. finding strategies to inspire employees is still a management problem, regardless of the situation of the economy. any organization, whether public, nonprofit, or for-profit, is constantly thinking of new methods to inspire employees to give their all. while a demotivated employee commonly partakes in pranks, eye services, and moonlighting, among other activities, and to some extent works expressly against the business's aims, a motivated employee would go above and beyond to assure the attainment of the organization's goals. it should thus not come as a surprise that management scientists have been researching motivating strategies throughout time. finding methods to encourage staff continues to be a managerial problem, regardless of the situation of the economy. the majority of firms, organizations, and managers generally confront several difficulties. one of these challenges is management, which is the utilization of resources effectively and efficiently to accomplish corporate goals and objectives. these minor issues may surface in employee-related areas including compensation, hiring, performance management, career development, training, and health and safety benefits, among others.

Motivation, according to Berelson and Staines (2020), is a mental state that directs behaviour toward a goal and encourages action. the study of the factors that influence behaviour is what Funmilayo et al. (2019) define as motivation. the elements that influence a person's decision to act or not to act are sometimes referred to as motivation, by broussard and garrison (2020). as defined by Kaymaza (2018), inspiration is anything that propels a person toward a certain objective. furthermore, according to kaymaza, "motivation" refers to a person's drive, goals, longings, and objectives. the ideas presented above imply that motivation as a whole focuses on the factors or forces that influence how people behave when they are convinced.

Employees are generally viewed by employers as instruments in their hands to help them achieve their profit-making goals; they are considered as necessary evils that can be utilized and dispensed with at will. This is especially true in profit-driven enterprises. The majority do not consider their people to be assets that require safeguards, just like the goods, plant and apparatus, equipment, and money they so highly regard. However, it has been shown over time that a motivated employee is a valuable commodity that requires proper security. Additionally, it is possible to conclude that enhancing the workplace has a positive impact on workers' productivity. This is true since an organization's behaviour directly depends on employee motivation, and motivated employees are more likely to be highly productive and flourish in their careers. Managers and corporations as a whole still struggle to create such a culture. This issue could arise since a company's output increases as employee elation levels climb. Nwokocha (2016) went on to say that motivation is the power that prompts the action that follows. Furthermore, motivation may be defined as everything that encourages and promotes human behaviour. It is common to represent a job performance metric as a ratio of total output to a single input or total input utilized in a production process, or output per unit of input, often over a certain amount of time (Ezigbo & Court, 2019). Different metrics of manufacturing efficiency are referred to as job performance. In other terms, it may be defined as a company's ability to efficiently transform its variable resource into consumable finished goods and services, as measured by output per personnel. Employee motivation is essential for every company that wants to prosper. This is so because a person's attitude about their work has an impact on how effective and successful they are. In a workplace that encourages employees to put out their best effort to achieve the organization's goals via a number of approaches, employers may motivate their workforce (Patrick, 2015). An enthusiastic worker would go above and beyond to take all practical measures to achieve a company goal which makes it therefore that certain businesses have developed a variety of retention methods. This means that employers should be on the lookout for three warning signs of poor morale, according to Darko-Asumadu et al. (2018). They alleged a hostile work atmosphere, falling standards for the jobs, and decreased productivity. They stated that there is a possibility that the company must be dealing with a demotivated staff if any of those indications are heading downhill. Therefore, employers of labour need to provide their employees' welfare with the proper attention. Demotivated workers may experience a variety of issues, including but not limited to: absenteeism, moonlighting, sabotage, lukewarm attitude and eye service are examples of minor activities that could be considered among them.

1.1 Objectives of the Study

The main objective of this study is to determine how staff motivation affects work output at the Igbinedion University Teaching Hospital in Okada: Other objectives include:

- To ascertain the effect of job enrichment on employees' job performance in Igbinedion University Teaching Hospital, Okada.

- To examine the effect of job enlargement on employees' job performance in Igbinedion University Teaching Hospital, Okada.
- To determine the effect of pay on employees' job performance in Igbinedion University Teaching Hospital, Okada.
- To find out the relevance of staff motivation on job performance in Igbinedion University Teaching Hospital, Okada.
- To find out the roles of social workers in staff motivation in Igbinedion University Teaching Hospital, Okada.

1.2 Research Questions

The following research questions will help to shed light to this study:

- What is the effect of job enrichment on employees' job performance in Igbinedion University Teaching Hospital, Okada?
- What is the effect of job enlargement on employees' job performance in Igbinedion University Teaching Hospital, Okada?
- What is the effect of pay on employees' job performance in Igbinedion University Teaching Hospital, Okada?
- What is the relevance of staff motivation on job performance in Igbinedion University Teaching Hospital, Okada?
- What are the roles of social workers in staff motivation in Igbinedion University Teaching Hospital, Okada?

1.3 Methodology

The study adopted a descriptive research approach for this study. The population targeted for this study consists of all the staff of Igbinedion University Teaching Hospital, Okada with a total population of two hundred and eighteen (218) members of staff which comprises of junior and senior cadre. This study adopted the total population as the same number of sample size. Two hundred and eighteen (218), Given the nature of the inquiry, the convenient sampling technique was used. The semi-structured questionnaire was the main method of data collection. A pilot study was conducted to confirm the validity and reliability of the tools. The study utilized questionnaire to elicit information from the respondents. The collected data were analysed with the statistical package for social statistics (SPSS 20.0) Program. frequencies and percentages were used to convey categorical data (such as sex, educational attainment, ethnicity, marital status, etc.), whereas frequency distribution tables, charts, and graphs were used to provide descriptive variables. Informed consent was sought from the participants and all ethical procedure were followed.

2. Results

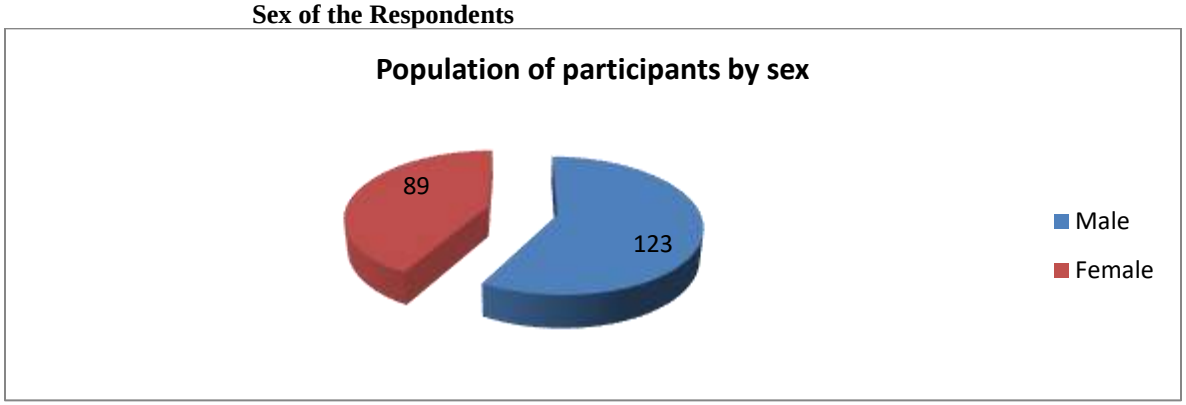
Table 1: Socio-Demographic Characteristics of Participants

Socio-Demographic Characteristics	Response	Frequency	Percentage
Sex	Male	123	58
	Female	89	42
Age	18 – 25	24	11.3
	26 – 33	56	26.4
	34 – 41	29	13.7
	42 – 49	72	34
	50 and above	31	14.6
Marital status	Single	23	10.8
	Married	158	74.5
	Separated	09	4.2
	Divorced	12	5.7
	Widow/ widower	07	3.3
	Never married	03	1.4
Religion	Christianity	169	79.7
	Islam	41	19.3
	African traditional religion	02	0.9
	Others	-	-
Educational Qualification	WAEC/NECO	08	3.8
	OND/NCE	23	10.8
	HND/Bsc	164	77.4
	Msc/Phd	12	5.7
	Others	05	2.4
Ethnic group	Benin	69	32.5

	Esan	32	15.1
	Igbo	09	4.2
	Yoruba	23	10.8
	Hausa	12	5.7
	Others	67	31.6
Total		212	100

Source: *Field Work, 2024*

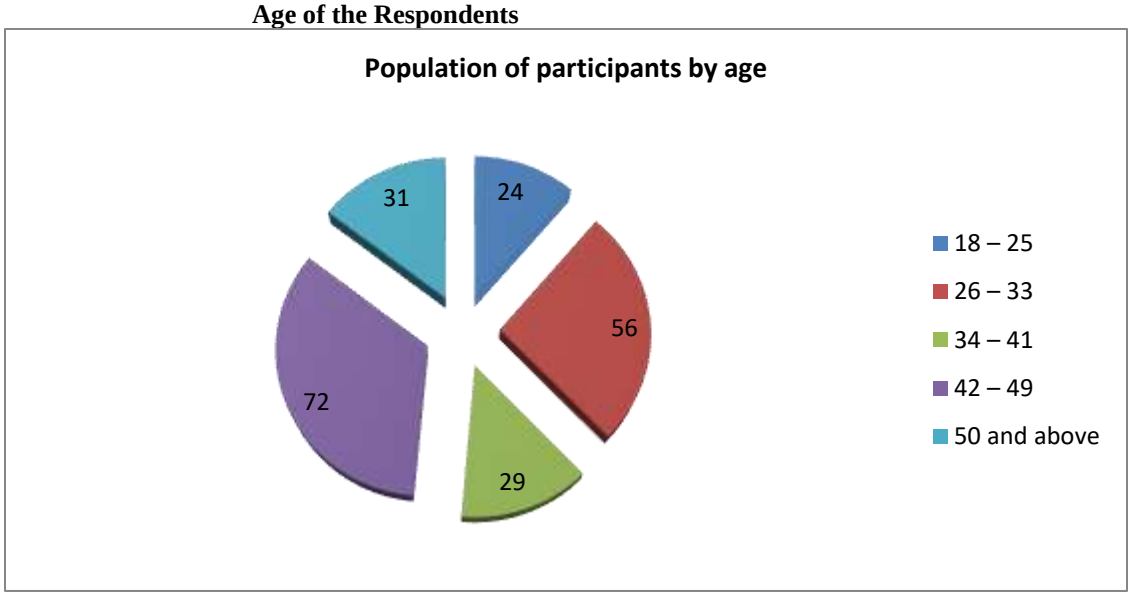
Sex of the Respondents



Source: *Field Work, 2024*

The above table showed the sex of participants, in which 123 participants representing 58% were male and 89 participants representing 42% were females. the finding therefore shows that there are more males than females that participated in the research study.

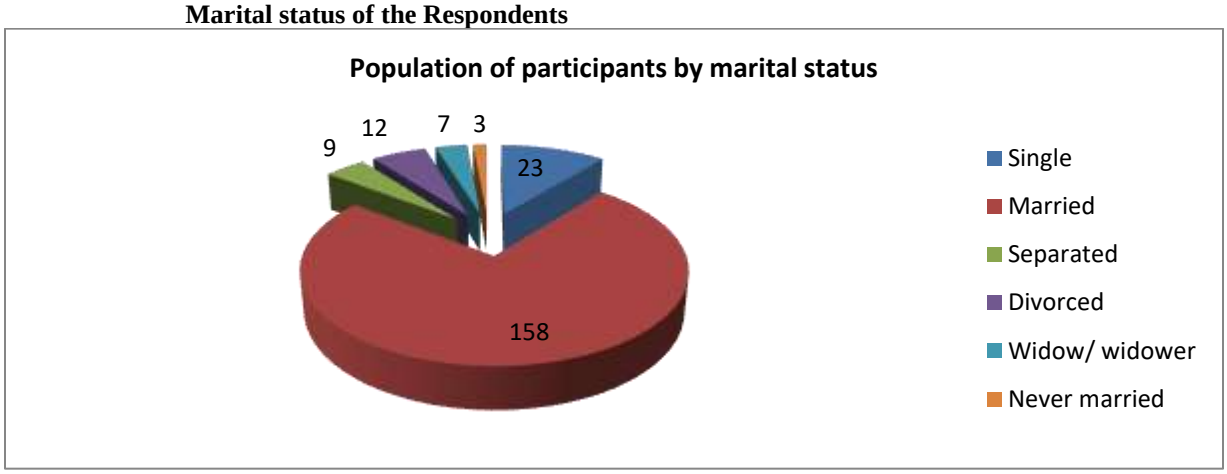
Age of the Respondents



Source: *Field work, 2024*

The table above showed the age of participants, in which 18 – 25 years were 24 participants representing 11.3%, 26 – 33 years were 56 participants representing 26.4%, 34 – 41 years were 29 participants representing 13.7%, 42 – 49 years were 72 participants representing 34% and those who were 50 years and above were 31 participants representing 14.6%.

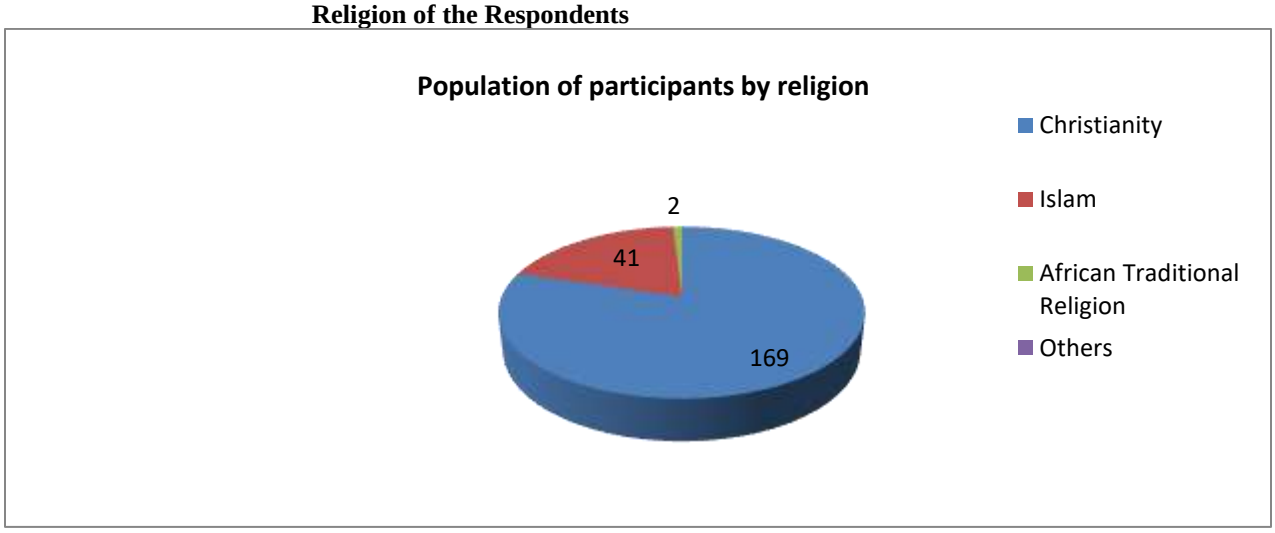
Marital status of the Respondents



Source: *Field Work, 2024*

The table shows the marital status of participants, in which there were 23 single participants representing 10.8%, 158 married participants representing 74.5%, 09 separated participants representing 4.2%, 12 divorced participants representing 5.7%, 07 widow/widower participants representing 3.3%, and 03 never married participants representing 1.4% respectively.

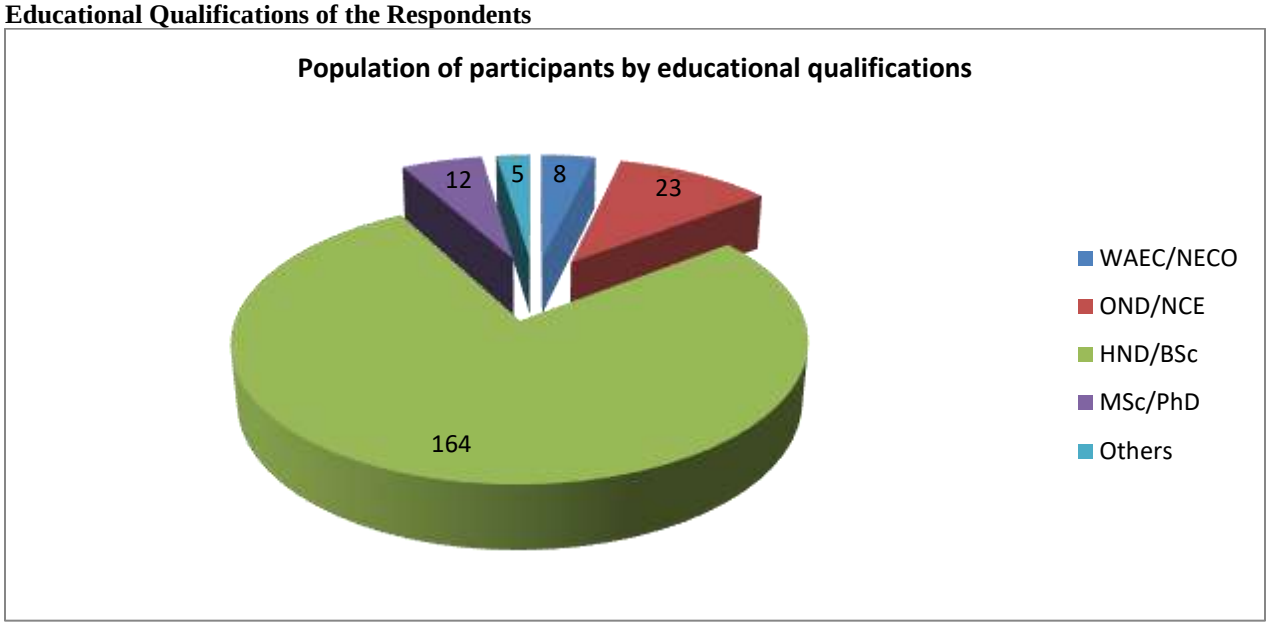
Religion of the Respondents



Source: *Field Work, 2024*

The table also shows the religion of the participants as 169 participants representing 79.7% were christian, 41 representing 19.3% were Muslim while 02 participants representing 0.9% were of the africa traditional religion (atr) while none of the participants belong to any other form of religion. the above data shows that majority of the participants were predominantly Christians. the result of the above table may not be strange and surprising since the study was carried out in Edo state where Christians are predominant as the main religious group,

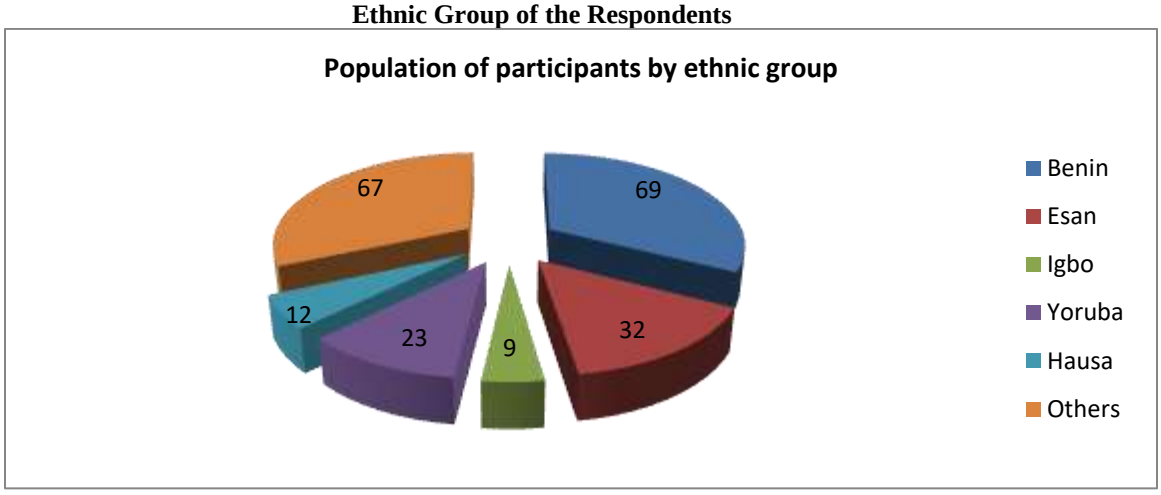
Educational Qualifications of the Respondents



Source: *Field Work, 2024*

The table shows the result of the educational background of the participants where those with WAEC/NECO were 08 participants that is, 3.8%, those with OND/NCE 23 participants that is 10.8% while those with HND/BSc were 164 participants that is, 77.4%, those with Msc/PhD were 12 participants that is 5.7% and those with other educational qualifications were 05 participants representing 2.4% respectively.

Ethnic Group of the Respondents



Source: *Field Work, 2024*

The table also further shows the results of the ethnic group of participants which shows that 69 participants representing 32.5% were those of Benin ethnic group, 32 participants representing 15.1% were those of the Esan ethnic group, 09 participants representing 4.2% were those of the Ibo ethnic group, 23 participants representing 10.8% were those of the Yoruba ethnic group, 12 participant representing 5.7% were Hausa while those from other ethnic groups were 67 participants representing 31.6%. the result therefore shows that majority of the participants were those of the Benin ethnic group. this is due to the fact that the area is predominantly occupied by the Benin ethnic stock.
Research Objective One: To ascertain the effect of job enrichment on employees' job performance in Igbinedion university teaching hospital, Okada

Statement	Responses	Frequency	Percentage
how satisfied are you with the opportunities your job provides for creativity and problem-solving, on a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied?	Very dissatisfied	20	9.4
	Dissatisfied	16	7.5
	Neutral	14	6.6
	Satisfied	78	36.8
	Very satisfied	84	39.6
on a scale of 1 to 5, how would you rate your overall job performance in the past year, where 1 is very poor and 5 is outstanding?	Very poor	06	2.8
	Poor	13	6.1
	Fair	34	16.0
	Good	87	41.0
	Outstanding	72	34.0
to what extent do you agree that job enrichment contributes to your motivation at work?	Strongly Disagree	19	9.0
	Disagree	16	7.5
	Neutral	12	5.7
	Agree	67	31.6
	Strongly Agree	98	46.2
do you believe that job enrichment has positively influenced your commitment to Igbinedion University Teaching Hospital?	Definitely not	11	5.2
	Probably not	16	7.5
	Neutral	10	4.7
	Probably yes	84	39.6
	Definitely yes	91	42.9
Total		**212**	**100**

Source: *Field Work, 2024*

The above table show the result of the cross tabulation on the effect of job enrichment on employees' job performance in Igbinedion university teaching hospital, Okada. the participants were asked four questions in other to find out effect of job enrichment on employees' job performance in Igbinedion University Teaching Hospital, Okada. first the participants were asked how satisfied they are with the opportunities their job provides for creativity and problem-solving, on a scale of 1 to 5, where 1 was very dissatisfied and 5 was very satisfied. the result of the analysis shows that 20(9.4%) of the respondents responded with very dissatisfied, 16(7.5%) of the respondents responded with dissatisfied, 14(6.6%) of the respondents responded with neutral, 78(36.8%) of the respondents responded with satisfied, 84(39.6%) of the respondents responded with very satisfied. secondly, participants were also asked on a scale of 1 to 5, how they would rate their overall job performance in the past year, where 1 was very poor and 5 was outstanding. the result of the analysis shows that 6(2.8%) of the respondents ticked very poor, 13(6.1%) of the respondents ticked poor, 34(16%) of the respondents ticked fair, 87(41%) of the respondents ticked good and 72(34%) of the respondents ticked outstanding. additionally, participants were also asked the extent they agree that job enrichment contributes to their motivation at work. the result of the analysis shows that 19(9%) of the respondents strongly disagreed to the assertion, 16(7.5%) of the respondents disagreed to the assertion, 12(5.7%) of the respondents were neutral to the assertion, 67(31.6%) of the respondents agreed to the assertion and 98(46.2%) of the respondents strongly agreed to the assertion. lastly, participants were also asked if they believe that job enrichment has positively influenced their commitment to Igbinedion University Teaching Hospital. the result of the analysis shows that 11(5.2%) of the respondents responded with definitely not, 16(7.5%) of the respondents responded with probably not, 10(4.7%) of the respondents responded neutrally, 84(39.6%) of the respondents responded with probably yes and 91(42.9%) of the respondents responded with definitely yes.

Research Objective Two: To examine the effect of job enlargement on employees' job performance in Igbinedion University Teaching Hospital, Okada

Statement	Responses	frequency	percentage
how satisfied are you with the additional responsibilities assigned through job enlargement, on a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied?	Very dissatisfied	12	5.7
	Dissatisfied	18	8.5
	Neutral	19	9.0
	Satisfied	78	36.8
	Very satisfied	85	40.1
to what extent do you agree that job enlargement has improved your job satisfaction?	Strongly disagree	10	4.7
	Disagree	21	9.9

	Neutral	16	7.5
	Agree	84	39.6
	strongly agree	81	38.2
do you believe that job enlargement has positively influenced your overall commitment to igbinedion university teaching hospital?	definitely not	12	5.7
	probably not	18	8.5
	Neutral	17	8.0
	probably yes	89	42.0
	definitely yes	76	35.8
Total		212	100

Source: *Field Work, 2024*

The above table show the result of the cross-tabulation effect of job enlargement on employees' job performance in Igbinedion University Teaching Hospital, Okada. participants were asked three questions in other to find out the effect of job enlargement on employees' job performance in Igbinedion University Teaching Hospital, Okada. First, the participants were asked how satisfied they are with the additional responsibilities assigned through job enlargement, on a scale of 1 to 5, where 1 was very dissatisfied and 5 was very satisfied. the result of the analysis shows that 12(5.7%) of the respondents were very dissatisfied in their responses, 18(8.5%) of the respondents were dissatisfied in their responses, 19(9%) of the respondents were neutral in their responses, 78(36.8%) of the respondents were satisfied in their responses and 85(40.1%) of the respondents were very satisfied in their responses. second, participants were also asked the extent they agreed that job enlargement has improved their job satisfaction. the result of the analysis shows that 10(4.7%) of the respondents strongly disagreed to the assertion, 21(9.9%) of the respondents disagreed to the assertion, 16(7.5%) of the respondents were neutral to the assertion, 84(39.6%) of the respondents agreed to the assertion and 81(38.2%) of the respondents strongly agreed to the assertion. lastly participants were also asked whether they believed that job enlargement has positively influenced their overall commitment to Igbinedion University Teaching Hospital. the result of the analysis shows that 12(5.7%) of the respondents ticked definitely not to the response, 18(8.5%) of the respondents ticked probably not to the response, 17(8%) of the respondents ticked neutral to the response, 89(42%) of the respondents ticked probably yes to the response and 76(35.8%) of the respondents ticked definitely yes to the response.

Research Objective Three: To determine the effect of pay on employees' job performance in Igbinedion University Teaching Hospital, Okada

Statement	**Responses**	**frequency**	**percentage**
On a scale of 1 to 5, how satisfied are you with your current level of pay, where 1 is very dissatisfied and 5 is very satisfied?	Very dissatisfied	88	41.5
	Dissatisfied	67	31.6
	Neutral	27	12.7
	Satisfied	11	5.2
	Very satisfied	19	9.0
To what extent do you believe that your pay is reflective of your skills, experience, and contributions to the organization?	Not at all	52	24.5
	Slightly	68	32.1
	Moderately	23	10.8
	Very much	54	25.5
	Completely	15	7.1
How would you rate the impact of your pay on your overall job motivation, on a scale of 1 to 5, where 1 is very low and 5 is very high?	Very low	67	31.6
	Low	36	17.0
	Neutral	11	5.2
	High	57	26.9
	Very high	41	19.3
Do you think that an improvement in your pay would positively influence your job performance?	Definitely not	04	1.9
	Probably not	07	3.3
	Neutral	-	-
	Probably yes	69	32.5
	Definitely yes	132	62.3
To what extent do you believe that pay is a motivating factor for your colleagues in achieving high job performance?	Not at all	09	4.2
	Slightly	10	4.7
	Moderately	42	19.8
	Very much	70	33.0
	Completely	81	38.2
Total		**212**	**100**

Source: *Field Work, 2024*

The table above show the result of the cross tabulation on the effect of pay on employees' job performance in Igbinedion University Teaching Hospital, Okada. Five questions were raised to analyze this objective. participants were asked how satisfied they were with their current level of pay, where 1 was very dissatisfied and 5 was very satisfied. the responses gotten from the analysis shows that 11(5.2%) of the respondents were very satisfied, 19(9%) of the respondents were satisfied, 27(12.7%) of the respondents were neutral, 88(41.5%) of the respondents were dissatisfied and 67(31.6%) of the respondents were very dissatisfied. second, participants were also asked the extent they believed that their pay was reflective of their skills, experience, and contributions to the organization. the result of the analysis shows that 52(24.5%) respondents ticked not at all to the assertion, 68(32.1%) respondents ticked slightly to the assertion, 23(10.8%) respondents ticked moderately to the assertion, 54(25.5%) respondents ticked very much to the assertion and 15(7.1%) respondents ticked completely to the assertion. third, participants were asked how they rated the impact of pay on their overall job motivation, on a scale of 1 to 5, where 1 was very low and 5 was very high. the result of the analysis shows that 67(31.6%) respondents ticked very low to the assertion, 36(17%) respondents ticked low to the assertion, 11(5.2%) respondents ticked neutral to the assertion, 57(26.9%) respondents ticked high to the assertion and 41(19.3%) respondents ticked very high to the assertion. more so, the participants were asked if the improvement in their pay would positively influence their job performance. the result of the analysis shows that 4(1.9%) respondents ticked definitely not to the assertion, 7(3.3%) respondents ticked probably not to the assertion, none of the respondents were neutral in their responses, 69(32.5%) respondents ticked probably yes to the assertion and 132(62.3%) respondents ticked definitely yes to the assertion. lastly, participants were asked the extent they believed that pay is a motivating factor to their colleagues in achieving high job performance. the result of the analysis shows that 9(4.2%) of the respondents ticked not at all to the response, 10(4.7%) of the respondents ticked slightly to the response, 42(19.8%) of the respondents ticked moderately to the response, 70(33%) of the respondents ticked very much to the response and 81(38.2%) of the respondents ticked completely to the response.

Research Objective Four: To find out the relevance of staff motivation on job performance in Igbinedion University Teaching Hospital, Okada

Statement	**Responses**	**Frequency**	**Percentage**
On a scale of 1 to 5, how would you rate the impact of motivation on your overall job performance, where 1 is very low and 5 is very high?	Very low	73	34.4
	Low	86	40.6
	Neutral	13	6.1
	High	26	12.3
	Very high	14	6.6
To what extent do you agree that motivated employees are likely to perform better in their roles?	Strongly disagree	16	7.5
	Disagree	20	9.4
	Neutral	05	2.4
	Agree	72	34.0
	Strongly agree	99	46.7
How satisfied are you with the motivational initiatives and programs provided by the organization, on a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied?	Very dissatisfied	67	31.6
	Dissatisfied	67	31.6
	Neutral	12	5.7
	Satisfied	37	17.5
	Very satisfied	29	13.7
Do you believe that a lack of motivation negatively affects the overall performance of the staff in Igbinedion University Teaching Hospital?	Definitely not	11	5.2
	Probably not	19	9.0
	Neutral	03	1.4
	Probably yes	92	43.4
	Definitely yes	87	41.0
Total		**212**	**100**

Source: *Field Work, 2024*

In other to analyze the fourth objective, the participants were asked four questions. first, participants were asked on a scale of 1 to 5, how they would rate the impact of motivation on their overall job performance, where 1 was very low and 5 was very high. the result of the analysis shows that 73(34.4%) of the respondents ticked very low to the assertion, 86(40.6%) respondents ticked low to the assertion, 13(6.1%) respondents ticked neutral to the assertion, 26(12.3%) respondents ticked high to the assertion and 14(6.6%) respondents ticked very high to the assertion. second, participants were asked the extent they agreed that motivated employees are likely to perform better in their roles 16(7.5%) of the respondents were very dissatisfied, 20(9.4%) of the respondents were dissatisfied, 5(2.4%) of the

respondents were neutral, 72(34%) of the respondents were satisfied and 99(46.7%) of the respondents were very satisfied. third, participants were asked how satisfied they are with the motivational initiatives and programs provided by the organization, on a scale of 1 to 5, where 1 was very dissatisfied and 5 was very satisfied. the result of the analysis shows that 67(31.6%) of the respondents were very dissatisfied, 67(31.6%) of the respondents were dissatisfied, 12(5.7%) of the respondents were neutral, 37(17.5%) of the respondents were satisfied and 29(13.7%) of the respondents were very satisfied. lastly, participants were asked if they believed that a lack of motivation negatively affects the overall performance of the staff in Igbinedion University Teaching Hospital. the result of the analysis shows that 11(5.2%) respondents ticked definitely not to the assertion, 19(9%) respondents ticked probably not to the assertion, 3(1.4%) respondents ticked neutral to the assertion, 92(43.4%) respondents ticked probably yes to the assertion and 87(41%) respondents ticked definitely yes to the assertion.

Research Objective Five: To find out the roles of social workers in staff motivation in Igbinedion University Teaching Hospital, Okada

Statement	**Responses**	**frequency**	**percentage**
To what extent do you believe social workers actively contribute to the overall motivation of staff within igbinedion university teaching hospital?	Strongly disagree	17	8.0
	Disagree	67	31.6
	Neutral	88	41.5
	Agree	19	9.0
	Strongly agree	21	9.9
In your opinion, how well do social workers address the individual motivational needs of employees within the hospital?	Very poorly	-	-
	Poorly	-	-
	Neutral	167	78.8
	Well	18	8.5
	Very well	27	12.7
How effectively do social workers collaborate with employees to identify and address their specific motivational challenges?	Ineffectively	-	-
	Somewhat ineffectively	-	-
	Neutral	187	88.2
	Somewhat effectively	12	5.7
	Very effectively	13	6.1
To what extent do you observe social workers tailoring their approach to meet the diverse motivational needs of different employees within the hospital?	Rarely	70	33.0
	Occasionally	76	35.8
	Sometimes	43	20.3
	Often	12	5.7
	Always	11	5.2
Total		**212**	**100**

Source: *Field Work, 2024*

In analyzing objective five, the participants were asked four questions. first, the participants were asked the extent they believed that social workers actively contribute to the overall motivation of staff within Igbinedion University Teaching Hospital. The result of the analysis showed that 17(8%) of the respondents strongly disagreed to the assertion, 67(31.6%) of the respondents disagreed to the assertion, 88(41.5%) of the respondents were neutral to the assertion, 19(9%) of the respondents agreed to the assertion and 21(9.9%) of the respondents strongly agreed to the assertion. second, participants were asked how well they thought social workers addressed the individual motivational needs of employees within the hospital. the result of the analysis shows that none of the respondents ticked very poorly or poorly as a response to the assertion. although, 187(88.2%) of the respondents ticked neutral to the assertion, 18(8.5%) of the respondents ticked well to the assertion and 27(12.7%) of the respondents ticked very well to the assertion. additionally, participants were asked how effectively social workers collaborated with employees to identify and address their specific motivational challenges. the result of the analysis shows that none of the respondents ticked ineffectively nor somewhat ineffectively to the response even though 187(88.2%) of the respondents ticked neutral to the assertion, 12(5.7%) of the respondents ticked somewhat effective to the assertion and 13(6.1%) of the respondents ticked very effective to the assertion. lastly, participants were asked the extent they observe social workers tailoring their approach to meet the diverse motivational needs of different employees within the hospital. the result of the analysis shows that 70(33%) of the respondents ticked rarely to the response, 76(35.8%) of the respondents ticked occasionally to the response, 43(20.3%) of the respondents ticked sometimes to the response,

12(5.7%) of the respondents ticked often to the response and 11(5.2%) of the respondents ticked always to the response.

3. Discussion of Findings

The main objective of this study is to determine how staff motivation affects work output at the Igbinedion University Teaching Hospital in Okada. The result of the first objective, the study established that employees are very satisfied with the opportunities that their job provided for creativity and problem solving. the result also established that the overall job performance of employees over a period of a year has either been good or outstanding. the result in objective one further showed that job enrichment contributes to employees work motivation in the study area. it was deduced from the result of the study that job enrichment has positively influenced employees' commitment to Igbinedion University Teaching Hospital, Okada. The result of this study is in agreement with Hackman and Oldham (1976), who stated that job enrichment, characterized by increased task variety, autonomy, and opportunities for skill development, leads to higher levels of motivation and job satisfaction, ultimately resulting in improved job performance. more so, Adams et al. (2006) found that job enrichment initiatives, such as task significance and skill variety, can lead to higher levels of intrinsic motivation and job engagement, resulting in improved job performance outcomes. in a similar vein, grant (2008), job enrichment fosters a learning-oriented work environment that encourages employees to expand their skills and capabilities, ultimately contributing to improved job performance through increased task mastery and proficiency.

The result of objective two established that employees are either satisfied or very satisfied with the additional responsibilities assigned through job enlargement to them. the result also showed that employees of Igbinedion University Teaching Hospital, Okada agreed that job enlargement has improved their job satisfaction. it was also deduced from the result that job enlargement has improved employees job satisfaction in the study area. additionally, the result of the study in objective two further showed that job enlargement has positively influenced employees' overall commitment to Igbinedion University Teaching Hospital. This is in agreement with Lawler and Hackman (1980), who stated that job enlargement has been associated with higher levels of organizational effectiveness, including improved performance, innovation, and adaptability, leading to competitive advantage and sustainable growth.

The result of objective three showed that employees of Igbinedion University Teaching Hospital, Okada are either dissatisfied or very dissatisfied with your current level of pay and this has much effect on employees job performance. this on the other hand was expressed in the result elicited where majority of the respondents stated that they slightly believe that their pay is reflective of their skills, experience, and contributions to the organization as employees pay have some level of positive reinforcement and motivation to work. the result also showed that there is a high impact of employees pay on their overall job motivation. this was also in agreement with majority of the responses elicited from the employees who stated that an improvement in employees' pay would positively influence their job performance has increase in pay scale is a motivating factor in achieving high job performance.

The result of objective four established that majority of the employees stated that there is a very low impact of motivation on their overall job performance. it was also deduced from the analysis that majority of the employees strongly agreed that motivated employees are likely to perform better in their roles. the result of the study further showed that majority of the employees were very dissatisfied and dissatisfied with the motivational initiatives and programs provided by the organization. it was also stated that the employees definitely believed that a lack of motivation negatively affects the overall performance of the staff in Igbinedion University Teaching Hospital, Okada.
lastly, the result of objective five showed that majority of the employees of Igbinedion University Teaching Hospital, Okada were neutral as to whether social workers actively contribute to the overall motivation of staff within Igbinedion University Teaching Hospital. The result also revealed that majority of the employees was neutral as to how well social workers address the individual motivational needs of employees within the hospital. it was further revealed that majority of the respondents were neural to the claim that social workers collaborate with employees to identify and address their specific motivational challenges. more so, the result also showed that majority of the employees stated that social workers tailoring their approach occasionally meet the diverse motivational needs of different employees within the hospital. this could be as a result of the unavailability of social work professionals in Igbinedion Teaching Hospital, Okada. This was substantiated by the society for social work leadership in health care (SSWLHC, 2020) who emphasizes social workers' role in promoting employee well-being and work-life balance to prevent burnout and improve job satisfaction and retention.

4. Conclusion

In conclusion, this study has provided valuable insights into the intricate relationship between staff motivation and job performance within the context of Igbinedion University Teaching Hospital (IUTH) in Okada. through a comprehensive investigation employing the quantitative surveys, the research aimed to elucidate the extent to which staff motivation influences various facets of job performance among healthcare professionals in the hospital setting.
the findings of this study underscore the significant impact of staff motivation on job performance within IUTH. analysis of quantitative survey data revealed a clear correlation between motivational factors such as salary satisfaction, recognition, career advancement opportunities, and workplace culture, and self-reported indicators of job performance among hospital staff. furthermore, qualitative interviews provided rich insights into the underlying mechanisms through which motivation influences employee behaviors, attitudes, and overall job satisfaction.

One of the key conclusions drawn from this research is the critical importance of addressing motivational factors to enhance job performance and organizational effectiveness within IUTH. hospital administrators and policymakers must recognize the multifaceted nature of staff motivation and its implications for employee engagement, productivity, and quality of care delivery. by prioritizing initiatives that foster a supportive work environment, provide opportunities for professional growth, and acknowledge the contributions of staff, IUTH can cultivate a motivated workforce that is more inclined to perform at their best.

Moreover, the findings of this study have broader implications beyond the confines of IUTH, serving as a valuable resource for healthcare institutions and organizations seeking to optimize staff performance and enhance patient outcomes. the theoretical insights and practical recommendations derived from this research offer actionable strategies for improving employee motivation and job performance across diverse healthcare settings.

5. Recommendations

Based on the findings outlined above, the following recommendations have been presented:

(i) Introduce performance-based incentive schemes that reward exceptional job performance among hospital staff. These incentives could include bonuses, awards, or recognition programs to motivate employees and reinforce a culture of excellence.
(ii) Provide opportunities for professional growth and advancement, such as training programs, workshops, and continuing education opportunities. Empowering staff to enhance their skills and knowledge not only increases motivation but also improves job performance and patient care outcomes.
(iii) Create a supportive and inclusive work environment that values open communication, collaboration, and teamwork. - Encourage employee engagement initiatives, such as staff meetings, feedback mechanisms, and employee recognition programs, to foster a sense of belonging and morale among the workforce.
(iv) Conduct regular reviews of salary structures and benefits packages to ensure they remain competitive within the healthcare industry. Fair and equitable compensation is essential for retaining top talent and maintaining high levels of motivation among hospital staff.
(v) Implement policies and practices that support work-life balance, such as flexible scheduling, telecommuting options, and access to wellness programs. Recognizing and accommodating the diverse needs of employees fosters a healthier work-life balance, reducing burnout and enhancing job satisfaction and performance.
(vi) Establish transparent channels for addressing staff concerns, grievances, and feedback. Encourage open dialogue between management and employees to identify and address any issues or challenges affecting motivation and job performance promptly.
(vii) Offer leadership and management training programs for supervisors and managers to equip them with the skills and knowledge needed to effectively lead and motivate their teams. Strong leadership is instrumental in creating a positive work culture and driving employee engagement and performance.
(viii) Implement regular performance evaluations and assessments to monitor staff motivation levels and job performance indicators. Use these metrics to identify areas for improvement and track progress over time, adjusting strategies as needed to sustain motivation and enhance performance.

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Pension Fund Administrators and Financial Transparency of Retirement Savings Funds in Nigeria

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Abstract. The study examined Pension Fund administrators and Financial Transparency of Retirement savings funds of Nigeria. The paper posit that pension fund administrators faces numerous challenges that hampers financial transparency in the management of retirement savings funds of Nigerian retirees. Using an historical method involving a critical but systematic analysis of secondary data, the findings revealed amongst other things that in Nigeria, low level of transparency and compliance had been reported among operators of Nigerian Contributory Pension Scheme. The studies documented unsatisfactory level of transparency and compliance among Contributory Pension Scheme operators and employers of labor in Nigeria. In exploring issues of transparency and accountability in pension fund administration in Nigeria, it was revealed that corruption remains a pervasive challenge in Nigeria, and pension fund administration is not immune. It was also revealed that there are gaps in regulatory oversight and enforcement. Inadequate monitoring and supervision can allow malpractices to go unchecked. Insufficient transparency in reporting practices was also identified to hampers stakeholders' ability to assess the performance and integrity of pension fund administrators. Furthermore, lack of adequately trained personnel within regulatory bodies and pension fund administrators with Insufficient expertise in governance, risk management, and financial oversight hinders efforts to promote transparency and accountability. Finally, political interference in pension fund administration was also identified as undermining transparency and accountability efforts. Nepotism, favoritism, and patronage networks was in addition noted to influence decision-making processes, compromising the integrity of the system. Based on these findings, the following recommendations were outlined: PenCom should take the challenge of technological advances seriously by modernizing its systems, because the traditional approaches to business management is fast fading out. The adoption of Information and Communication Technology based methods instills reliability and confidence in the information produced. Second, PenCom should engage in effective oversight and monitoring of the PFAs and PFCs to ensure compliance with the provision of the Act. More so, government should empower PenCom to summon the Chairmen, Directors or Managers of non-compliant employers and impose severe sanctions on them. Above all, PenCom should embrace high level standard of corporate governance. While tapping into global expertise for training and education of staff, systems development, technology and information communication technology.

Keywords: Pension, Transparency, Accountability, Fund Administrators

1. Introduction

1.1 Background to the Study

After working for an organization for a certain number of years, an employee is entitled to benefits, which may include a pension and gratuity that will be paid by the business when the individual retires. Pensions have long been accepted over the world as a programme to support the wellbeing of retired people who are eligible for them. After successfully retiring from active employment, employees in both public and private sector organisations are expected to have comfortable lives free from any kind of dependency (Oloruntoba & Ojo, 2021). Ovbiagele (2015) states that a pension is a lump sum payment made to an employee following their termination from

employment; typically, this payment is made in monthly installments. According to his additional opinions, pension plans might be single-employer or multi-employer, insured or trustee, group or individual, fixed or variable benefits, and private or public. A pension is an agreement that specifies a regular payment of a certain amount to a retiree, usually after they have completed their service. In contrast to severance pay, which is paid in one lump amount, this compensation is given in monthly payments (Abdulkadir, 2006).

The colonial government of Nigeria instituted the pension system. The 1951 Pension Ordinance was Nigeria's first pension law, going into force retroactively in January 1946. It gave public employees the ability to receive a pension and gratuity. Numerous social protection programmes have been implemented in Nigeria, although they have only been in the public sector (Ahmed, 2006). Up until 2004, Nigeria had a Defined Benefit Pension Scheme (Pay-as-you-go) that was mostly non-contributory, especially in the public sector. A retiree's final entitlement was determined by their duration of service and their terminal benefits. The Federal Government provided funding for it through budgetary allocation. The programme was beset by numerous issues: the government was unable to pay worker pensions and gratuities due to a lack of a plan, records were unavailable, administration was disorganized and underfunded, there was outright fraud and irregularities, funds were diverted, and there were eligible pensioners on the pension payroll (Ahmed, 2006). The Pension Reform Act of 2004 was created as a result of the reform of pension administration that was required during Obasanjo's tenure as a civilian president due to the issues related to pension payment in Nigeria. In addition, the Pension Reform Act was designed to close the gaps that were found in the previous Defined Benefit Pension Plan and give retirees enough money (Ojiaku, Nwatu & Aghara, 2020).

The fundamental ideas of sustainability, responsibility, equality, adaptability, and practicability also serve as guiding principles. The new pension plan is fully financed and contributes to benefits. Contributions are made to the Retirement Savings Account (RSA) of each individual employee. This sets it apart from the previous plan. The assets are based on individual accounts, and the monies are held in private third-party custody. It encompasses all workers in the Federal Capital Territory, the private sector of the economy, and the federal public sector (Mol, 2015). Every retiree born after 2007 is covered by this programme. On the direction of Pension Fund Administrators (PFA), pension payments are remitted directly to the Pension Fund Custodians (PFC) to be retained. This new pension plan is required for all types of firms.

One of the major problems with the outdated unfunded defined pension plan in Nigeria was the lack of financial stability. The system is rife with incompetence, corruption, mishandled pension fund management, absence of oversight and regulatory bodies, inadequate budgetary allotments, infiltration of "ghost" pensioners, and release of insufficient funds to settle outstanding pension debts, all of which lead to pension arrears. Consequently, the rejection of pension benefits led to the inevitable humiliation and starving of retirees. The new contributory pension plan allowed for the management of funds by pension fund administrators and custodians under the close supervision of the National Pension Commission (PenCom) in order to guarantee stability, sustainability, efficacy, transparency, and accountability. Oloruntoba & Ojo (2021) claim that the Pension Reform Act of 2004 strongly identified with all of these characteristics, but the previous pension plan lacked the qualities of truth, honesty, impartiality, justice, integrity, ineffectiveness, and sustainability. In light of this, this study will assess Nigerian retirement savings fund managers as well as their financial transparency.

1.1 Statement of the Problems

When workers get closer to retirement age, one of their main concerns is how they will continue to support themselves and their families once they retire. Whether a man works or not, meeting his basic necessities for food, clothes, and shelter is a key concern that must be attended to for the duration of his life. Employers of labour package and implement terminal benefits known as pensions and gratuities based on this concept (Otinche, 2012). The new contributory pension plan was introduced in 2004 in part due to inconsistencies in the now-defunct pension system. Years after it was put into place, nevertheless, it appears that the recognisable elements of the previous pension plan are still present. Ineffective regulatory control and enforcement procedures that oversee pension fund administrators (PFAs) in Nigeria may allow retirement savings money to be misused or mismanaged. In fact, it has also been suggested that PFAs frequently lack proper openness and disclosure policies when it comes to the management of retirement savings funds, which makes it challenging for pension participants to completely comprehend how their money is being invested and managed (Oluwatoyin, 2013).

The financial security of retirees is put at risk by weak governance systems inside PFAs, which have been linked to potential for fraud and corruption, including the misappropriation of pension money. Insufficient systems check exist to ensure that PFAs behave in the best interests of pension contributions and hold them responsible for their conduct, which might lead to bad investment choices or conflicts of interest. Furthermore, according to Ovbiagele (2015), PFAs frequently participate in intricate investment plans that pension participants may not completely comprehend or find transparent, raising the possibility of financial loss and lowering the total return on investment for retirement savings accounts. Pension contributors may suffer large losses as a result of retirement savings funds being exposed to market downturns and economic shocks due to PFAs' deficient transparency and risk management procedures. It is against this backdrop that this research looks at retirement savings funds in Nigeria and their financial transparency in the context of pension fund administrators.

1.2 Objective of the Study

The key objective of the study is to examines pension fund administrators and the financial transparency of retirement savings funds in Nigeria. The specific objectives however include the followings:

- To determine the significant level of financial transparency in the administration of retirement savings funds by Pension Funds Administrators in Nigeria.
- To examine if the Contributory Pension Scheme enables easy access to Pension Saving Funds to the retirees in Nigeria.
- To determine whether the introduction of Pension Funds Administrators has a significant effect on the reduction of corruption in the management of pension funds in Nigeria.

1.3 Research Questions

The following research questions guide the study:

- What are the levels of financial transparency in the administration of retirement savings funds by Pension Funds Administrators in Nigeria?
- Has the Contributory Pension Scheme enable easy access to Pension Saving Funds to the retirees in Nigeria?
- To what extent has the introduction of PFAs has a significant effect on the reduction of corruption in the management of pension funds in Nigeria?

2. Literature Review

2.1 Concept of Retirement

Retiring from a regular paid employment entails a permanent break. It is viewed as the time in a person's life following the cessation of employment at a specific age. The monthly salary ends at this time. Now, he or she could be dependent on retirement assets and/or benefits (such as monthly pensions and gratuities) (Kudu, 2015). Age is a key factor in determining when employees should retire since it impacts their ability to be productive. Employers can reorganize the age distribution of their staff to increase organizational efficiency through retirement programmes. By eliminating superannuated personnel, this is accomplished. The idea of scientific management regarding worker redistribution within organisations supports this concept. Pensions are given to people who are impacted by this shift as compensation. In order to address the psychological effects of retirement and old age poverty, the compensation must be sufficient (Otinche, 2012).

2.2 The Concept of Pension

Pension, according to Dike (2010), is the term used to describe an employee's continued income after leaving their company. According to him, employees have a right to their pension, which their employers cannot take away from them. According to Otinche (2012), this concept is reasonable in the context of a non-contributory pension plan, in which the employer was responsible for paying the pension. It might no longer be seen as continuation of the employee's wage under the contributory plan, where the employee contributes a portion of his monthly income to accumulate funds for retirement because the employer is no longer bearing all of the costs. This necessitates a broader definition. Olaniyi (2018) defines a pension as the amount of money that the state, through his former employers, pays to an individual who is unable to work due to age, disability, or as a way to support their dependant children or widow. The funds are donated by both the individual and his employers. He also emphasised that a pension plan offers an organised means of supplying financial stability to a person who is unable to sustain themselves due to advanced age or illness. It is the sum of money that is routinely provided to an individual who is no longer employed by the government or a business, either from a fund that he contributed to or did not pay to. An agreement that stipulates that the company will offer cash

benefits to the employees upon their retirement under certain conditions is known as a pension plan. The term “pension scheme” refers to the total of all plans under a certain system as established by parliament. Chile served as the model for the current pension plan that Nigeria implements (Asher & Bali, 2013).

2.3 Pension Reform Act 2014

President Goodluck Jonathan signed the new Pension Reform Act 2014 into law on July 1st, 2014, nullifying the Pension Reform Act 2004 (repealed Act). Bejide (2019) states that the main goals of the reform are to guarantee that contributors receive their payments on time and to support impoverished Although the new act is overall a positive move, there are significant gaps, ambiguities, and contradictions in the legislation since some of the modifications introduced don't seem to have been thoroughly thought out, and some of the changes seem to have been done at the last minute. Babatunde (2012) lists the following benefits of this new reform law: i. Retirement Savings Account Withdrawals: The new Act adds a new circumstance in which a contributor may be permitted to take money out of his retirement account. A worker may withdraw up to 25% of the entire amount credited to their retirement savings account if they leave their job, or if they leave before turning 50 and are unable to find another job within 4 months of leaving their current one. ii. Option for Pension Fund Administrator: Workers are still free to select their PFA.

This benefit is now available to workers whose companies run closed pension plans. These workers now have the option of selecting an outside PFA. Employers may now ask a PFA to start a minimal Retirement Savings Account (RSA) for an employee who hasn't opened one within six months of taking on new responsibilities in order to receive his pension contributions. iii. Investment of pension funds: The Act broadens the pool of assets into which pension funds may be invested. This includes various financial instruments that the Commission (Pension Commission or PenCom) may approve as well as specialised investment funds.

On the one hand, this is positive, but it's important to remember that contributors' money needs to be safeguarded. iv. Offences and punishments: A few new provisions pertaining to offences and punishments are included in the Act. The Act makes attempting to commit a crime illegal and imposes the same punishment as the actual offence. According to Cong, Frank, Gianakis, and Guo (2014), there has also been an increase in the penalty for appropriation. A person found guilty would forfeit any property, asset, or fund that had accrued interest or the proceeds of any unlawful activity under the Act that was in their possession, custody, or control to the federal government in addition to serving a 10-year prison sentence and paying a fine three times the amount that was misappropriated.

In addition to the aforementioned, the Act specifically targets Pension Fund Custodians (PFCs) and stipulates that a conviction resulting from a PFC failing to hold funds exclusively for the benefit of the PFA and PenCom, or from the PFC using funds for personal expenses, will result in a minimum penalty of 10 million Naira (or, in the case of a director, 5 million Naira, a term of 5 years imprisonment, or both). v. Pension protection fund - Under the new Act, a pension protection fund has been established, which consists of an annual pension protection levy (the percentage of which will be decided by PenCom), income from investments of the fund, and an annual subvention of 1% of the total monthly wage bill payable to employees in the public sector. The Fund's goal is to ensure that contributors get a minimal payout in the event that pension fund investments fall short of expectations and that any contributions are withdrawn within five years. Only other uses that PenCom may occasionally decide upon are restricted by tax. vi. Dispute resolution: Before looking into arbitration or filing a case in the National Industrial Court, any employee who feels wronged by his employer or PFA must speak with PenCom. Arbitration and the Investment and Securities Tribunal were the only dispute resolution options available under the Act that was abolished (Dolls, Doerrenberg, Peichl, & Stichnoth, 2018).

3. Transparency and Compliance Issues in the Contributory Pension Scheme

The goal of transparency is to improve communication between the organisation and its stakeholders (Hess, 2015). According to Ibiang, Etuk, and Okimba (2010), pension transparency is the degree to which information disclosed represents the condition of the assets managed by pension managers. Transparency is unquestionably one of the factors that determines the effectiveness of implementing a pension plan (Imhanlahimi & Joseph, 2011). According to Kantudu (2015), subscribers to the Contributory Pension Scheme in Nigeria may more easily obtain essential information when openness is included into pension plan operations.

According to Kpessa (2011), subscribers to the Contributory Pension Scheme in Nigeria can more easily obtain essential information when openness is included into the administration of pension

programmes. According to Mol (2015), social programmes like pension changes have a higher chance of lasting if they are more open. According to Crowther and Seifi (2011), openness is now required to ensure that those impacted by decisions receive timely and pertinent information. In order to foster a long-term commitment in servicing the main stakeholders—plan participants—transparency puts discipline on those tasked with administering and managing pension plans (Hess, 2015). This is ascribed to the transparency's function in minimising the fund managers' level of secrecy by enabling examination of their performance.

To enable plan members to evaluate value creation performance and risk management to prevent sustainability issues, an efficient mechanism for transparency in the pension system must be designed (Tomassettis, 2023). Transparency so increases public confidence in pension fund managers' operations. According to Hess (2015), there is a positive correlation between transparency and pension fund growth, with a lack of openness resulting in subpar fund growth, as well as inequality and inefficiencies in pension fund distribution. According to Ugwoke & Onyeanu (2013), one of the reasons why targeted participants of all ages and political affiliations show little support for pension changes is their lack of openness. Therefore, maintaining openness through appropriate regulatory frameworks is essential to pension plan sustainability. An experimental event-based research on the impact of transparency on pension savings among German pension plan participants from 2002 to 2004 was carried out by Sule & Ezugwu (2009). For participants older than 27, copies of an experimental "information letter" with more extensive pension information than standard pension statements were provided. The results showed a significant increase in pension savings among recipients of the information letter compared with those receiving normal pension statements with no crowding-out effect on other personal savings.

Research conducted outside of Nigeria on transparency have definitively demonstrated a high degree of transparency, while research conducted within Nigeria have demonstrated the possible benefits of transparency for the Contributory Pension Scheme sector. Empirical research, however, reveals a pitiful degree of openness among Nigerian Contributory Pension Scheme operators. Imhanlahimi and Joseph (2011), for example, conducted a study of 1350 government officials in the geographical zones of South South-South and South-West Nigeria who were registered in CPS. They discovered that 55% of the participants did not regularly get information on their retirement savings accounts (RSAs) from their Pension Funds Administrators (RSAs).

Babatunde (2012) conducted a survey with 187 participants to investigate the degree of transparency exhibited by operators of Contributory Pension Schemes. According to the statistics, 124 (61%) of the operators of Contributory Pension Schemes were not providing sufficient information on their RSAs. Ojiaku, Nwatu, and Aghara (2020) investigated how consumers' loyalty to Contributory Pension Scheme (CPS) providers in Anambra South-East, Nigeria, is impacted by transparency. They found that members in Contributory Pension Plans were more loyal to Contributory Pension Plan operators when there was transparency, a positive and substantial impact. Research on the impact of openness on the long-term viability of the Nigerian Contributory Pension Scheme is still pending. This study investigated the relationship between transparency and the viability of Contributory Pension Schemes in light of the gap. As a result, the following theory was put forth: The viability of contributory pension schemes in Nigeria is positively correlated with operators' transparency in reporting and communication to PenCom and members.

The act of adhering to and implementing the laws and guidelines that control how businesses operate is known as compliance (Bejide, 2019). One of the important components in the administration of pension plans has been recognised as compliance (Ijeoma & Nwufo, 2015). In order to comply with pension management requirements, occupational pension fund managers and other stakeholders must abide by a number of rules and guidelines that are subject to periodic modification in response to new operational and managerial difficulties. According to Section 68 of The Act (2004), pension fund administrators (PFAs) and pension fund custodians (PFCs) must designate a compliance officer (CO) who will be responsible for making sure that the rules and regulations outlined in The Act (2004) are followed.

The responsibility for adhering to internal guidelines and regulations designed to control pension fund operators falls on the compliance officer (CO) (PFAs and PFCs). PenCom further strengthened the role of the compliance officer (CO) in 2009 by issuing "Regulations for Compliance Officers," which designate the CO as the officer in charge of making sure that pertinent regulations on pension matters—such as accounting disclosure, internal controls, and investment regulation—are followed. The CO is also responsible for ensuring that required returns on the management of the pension assets are made to

PenCom and the plan participants (Kantudu, 2018). The Contributory Pension Scheme compliance laws aim to reduce stakeholder worries about company failures brought on by industry participants' noncompliance with rules and regulations. Additionally, by making sure operators follow the business continuity plan, the Contributory Pension Scheme compliance legislation aims to meet the stated goals of giving a sustainable pension to worthy retired employees (PenCom, 2009).

4. Transparency and Accountability in Pension Fund Administration in Nigeria

Risk is inherent in how a pension plan functions. Pension-related risks can be classified into a number of areas, including reputational, legal, and financial risks. Pension managers' first goal is to control these risks by putting in place and keeping up a strong pension plan. According to Ibiang Etuk and Okimba (2010), pension scheme governance is a fundamental element of human resources governance and a key support system for corporate governance as a whole. A great deal of attention has been focused on the management of pension funds. Seniors want increased openness and responsibility when it comes to the management of pension funds (Dolls, Doerrenberg, Peichl & Stichnoth, 2018).

These scholars support the creation of morally sound governance guidelines for pension plans as a defence against claims of duty violations. Although there are many obstacles in the way of transparent pension plan administration, attempts are being made to get rid of the administrative vices. As mentioned by Akeni (2009), a crucial component of the Public Service Reform is pension reform. The new contributory pension plan is intended to ensure that pensioners who have worked in the public and private sectors get their retirement payments on time, as per the National Assembly's 2004 Pension Act. Not only would it eliminate all delays and tension, but it will also completely eradicate the corruption and abuses that are frequently connected to pension payments. He said that sooner or later, the involvement of the private sector and the active, transparent, and effective administration of pension funds by the stakeholders will engineer a revolution. In recent decades, there has been a new revolution in the value of honesty, accountability, and openness in pension administration. Public trust is necessary for excellence in pension fund administration, and pension fund administrators are expected to handle government resources responsibly and to fairly serve the public interest by paying employees. (Ajayi, 2009). Excellent and reliable public services and predictable decision-making is an inspiration to public trust and therefore create a level of playing field for commerce, thus leads to proper-functioning markets and economic growth and enhancement (Ahmed, 2017). In order to promote accountability on the part of the PFA's, the PRA 2004, in Section 44, stipulated that pension funds are to be managed by PFA's licensed by the PenCom under the Act. This section, therefore, implies that the PFA's are supervised by a regulatory body PenCom. Section 45(a)- (h) stipulates that any PFA licensed under this Act shall: open RSA for an employee with a Personal Identity Number (PIN) attached; invest and manage pension funds and assets by under the provision of the Act; maintain all records of account on all transactions concerning the management of pension funds; provide proper information on their investment strategy, and its market returns and every other performance indicators to the Commission and beneficiaries of the RSA; provide customer service support to beneficiaries, including access to employees account balances and statements if demanded; cause to be paid retirement benefits to employees by the provisions of this Act; be responsible for all calculations concerning benefits; and carry out other functions as may be directed from time to time by the Commission (National Assembly, FRN, 2004).

The National Pension Commission's Director-General underlined that strict procedures are in place to preserve the pension funds. In the new contributory pension scheme, pension funds are directly credited to each beneficiary's own Retirement Savings Account rather than remaining with the employers. The funds are not accessible to the Commission, the employer, or even the PFAs. Implementing a policy to report fraud in an 78 rganization is one approach to handle it, according to Zenith Pensions Custodian (ZPC), which is working to prevent fraud in the pension business (Ahmed, 2017). The mechanism for reporting whistleblower policies is intended to facilitate employee disclosure while upholding the strictest secrecy. It is expected that a useful reporting framework will encourage employees to report suspected or known acts of fraud and improper conduct by making it more accessible, more confidential, and less adversarial. The whistle blowing guidelines issued by the Pensions Commission is to protect employees against detrimental treatment as a result of any disclosure made by them to the Commission of information generally considered to be confidential in the interest of all stakeholders of the pension system.

5. Exploring key Issues of Transparency and Accountability in Pension Fund Administration in Nigeria.

The transition to the contributory pension plan (CPS) in 2004 was a well-documented change of the Nigerian pension system. Providing a sustainable financed pension system is one of CPS's goals (Pension Reform Act, 2014, sometimes referred to as The Act). This goal is comparable to the World Bank's (1994) advice that any pension reform must meet the sustainability criterion. The Act gives pension fund managers the authority to administer the CPS members' cumulative fund in the best interests of the group.

In order to support the creation of a sustainable Contributory Pension Plan, operators of CPS are required to operate with a high degree of openness and conformity with Act rules. According to Mol (2015), social programmes like pension changes are more sustainable the more openness and compliance there is. Research revealed that one persistent issue facing plan is the poor degree of compliance and openness among pension plan managers and employers of labour (Adegbayi, 2016).

The Nigerian Contributory Pension Scheme operators have been found to exhibit a deficient degree of openness and compliance. Research has indicated that Nigerian CPS operators exhibit low levels of transparency (Babatunde, 2012; Imhanlahimi & Joseph, 2011), and low compliance with Contributory Pension Scheme requirements has also been highlighted by Kantudu (2015; 2018), Anantharaman & Chuk (2017), and Oluwatoyin (2013). The research findings indicate that there is an inadequate degree of openness and compliance among CPS operators and labour employers in Nigeria. For example, according to Imhanlahimi and Joseph (2011), only around 45% of participants receive sufficient information about their retirement savings accounts from their pension fund administrators (PFAs), and only 1.5% of small and medium-sized businesses properly withheld and remitted employees' CPS payments (Asinya, 2018). This buttressed Report on the Observance of Standards and Codes (ROSC) (2004) that ranks Nigeria weak in institutional regulation compliance and transparency.

The aforementioned illustrates the several obstacles involved in investigating matters of accountability and transparency in the management of pension funds in Nigeria. Principal among them are the following:

Mismanagement and Corruption: Babatunde (2012) argues that pension fund administration is not immune to corruption, which is still a major problem in Nigeria. Transparency is weakened and systemic confidence is undermined by mismanagement, theft, and diversion of cash intended for retirees. According to Imhanlahimi & Joseph (2011), there are deficiencies in regulatory supervision and enforcement even while organisations such as the National Pension Commission (PenCom) are in place.

Inadequate oversight and guidance may let malpractices to continue unchallenged. Ijeoma & Nwufo (2015) also found that a lack of openness in reporting procedures makes it more difficult for stakeholders to evaluate the competence and honesty of pension fund managers. They pointed out that it is difficult to hold administrators responsible for their actions in the absence of clear and accessible information.

According to Kantudu (2018), one important problem is the complexity of pension legislation and regulations. According to him, navigating Nigeria's regulatory environment for pension fund management may be difficult and complicated. This intricacy might provide opportunities for deceitful people or organisations to manipulate or take advantage of. Nonetheless, Rocha, Hinz, and Gutierre (2011) believe that regulatory agencies and pension fund managers might not have enough staff with the necessary training. Inadequate proficiency in risk management, financial supervision, and governance may impede endeavours to foster openness and responsibility. However, Oluwatoyin (2013) argued that because Nigeria's pension system is made up of several schemes and administrators, it is fragmented and difficult to coordinate efforts to guarantee accountability and transparency throughout. He said that a major issue is the general lack of public knowledge and involvement. It's possible that many pension participants are unaware of all of their rights or how the pension system operates. The public's lack of understanding and participation might lessen the push for improvements in accountability and transparency. Oluwatoyin (2013) went on to say that although using technology to increase transparency in pension fund management might be beneficial, efforts to successfully use digital solutions may be hampered by a lack of suitable technical infrastructure, such as dependable internet access and digital platforms. He ended by restating the obvious: attempts to promote accountability and openness in pension fund administration have frequently been thwarted by political meddling. Decision-making processes are frequently influenced by nepotism, favouritism, and patronage networks, which undermines the integrity of the system.

6. Conclusion

Enforcing accountability and transparency in pension fund management is a formidable job that requires the combined efforts of all industry stakeholders to overcome. It is important to recognise the magnitude of the challenge in combating corrupt practices and advancing ethics, accountability, transparency, and good governance in the public and private spheres. As a result, the primary prerequisite for accountability is that there need to be a focus of liability on one entity or individual that is answerable to another entity. Clear accountability and openness won't be possible if responsibility isn't imposed with clarity.

Both in managing the pension fund and its own 80rganization, the governing body or individual must adhere to the principles of good governance. In other words, the Pension Commission, Pension Fund Custodians, and Pension Fund Administrators all adhere to the same legal and accounting standards that are relevant to businesses in their respective industries. Efficient accounting and audit standards accomplish two goals: they keep an eye on and verify the fund's financial transactions and act as a conduit for vital financial information to be shared with the public. Effective custody is also another crucial prerequisite for responsibility. All fund assets must always be kept in secure, independent custody; otherwise, at the end of the day, none of the requirements will be met. The core principles of pension fund management ought to be openness and reporting to all stakeholders. Lastly, it would be ideal if fund management could be verified. This should, at the very least, be done through external audits, external actuarial assessments of the assets and liabilities, and external confirmation of the investment changes.

7. Recommendations

PenCom needs modernise its processes in order to meet the challenges posed by technology advancements, as the conventional methods of corporate administration are rapidly becoming obsolete. Adopting techniques based on information and communication technology fosters confidence and dependability in the data generated.

The federal government need to push state governments to pass legislation allowing them to switch to contributory pension plans. Not all federation states have completely executed the scheme's requirements after more than 20 years.

Those in the unorganised sector who wish to enrol in the contributory pension plan should be covered by the programme. It is imperative that PFAs, PFCs, and the Commission create unambiguous lines of authority, accountability, and responsibility within their management and administrative structure to enable officials to answer for their deeds.

In order to evaluate their effectiveness, PFAs and PFCs should be required to integrate outcome-oriented performance measurements and monitoring that are linked to their financial management operations.

Those in the unorganised sector who wish to enrol in the contributory pension plan should be covered by the programme. It is imperative that PFAs, PFCs, and the Commission create unambiguous lines of authority, accountability, and responsibility within their management and administrative structure to enable officials to answer for their deeds.

In order to assess PFAs and PFCs' performance, result-oriented performance metrics and monitoring linked to their financial management operations should be implemented.

To guarantee adherence to the Act's provisions, the PenCom should effectively supervise and monitor the PFAs and PFCs. Regular control and monitoring will enable early discovery of abnormalities and violations, allowing for correction before they become more serious.

The government should give PenCom the authority to call in non-compliant employers' chairmen, directors, or managers and impose harsh penalties on them. PFAs ought to take advantage of the fresh investment opportunities to broaden their portfolio by making real estate and infrastructure investments.

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The government should give PenCom the authority to call in non-compliant employers' chairmen, directors, or managers and impose harsh penalties on them. PFAs ought to take advantage of the fresh investment opportunities to broaden.

PenCom ought to adopt strict corporate governance guidelines. In light of the advantages for all parties involved, it ought to motivate PFCs and PFAs to do likewise.

In terms of staff education and training, systems development, technology, and information communication technology, PenCom, the PFCs, and PFAs ought to use worldwide experience.

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Organizational Diversity Climate as a Predictor of Employee Turnover Intention

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Abstract. In Nigeria, where organizational structures and cultural contexts may differ significantly from those in Western countries where much of the existing research has been conducted, the relationship between dimensions of organizational diversity climate and employee turnover intention in Nigerian organizations must be better defined. This study examined the role of dimensions of organizational diversity climate as a predictor of employee turnover intention. The study participants comprised four hundred and thirty-one (N = 431) employees, with a mean age of 35.8 years (*SD* = 9), comprising 234 males and 197 females. The Workplace Diversity Inventory (WDI) and the Turnover Intention Scale (TIS-6) were used to measure organizational diversity climate and employee turnover intention. Results of Multiple Linear Regression revealed that diversity climate was not a significant predictor of employee turnover intention (β = .017, t = .320, $p > .05$); organisational justice was a significant negative predictor of employee turnover intention (β = -.117, t = -2.208, $p < .05$); identity was not a significant predictor of employee turnover intention (β = -.057, t = 1.065, $p > .05$); values was a significant positive predictor of employee turnover intention (β = .185, t = 3.495, $p < .05$); schemas was not a significant predictor of employee turnover intention (β = .032, t = .658, $p > .05$); and communication was not a significant predictor of employee turnover intention (β = -.057, t = -1.150, $p > .05$). The study concludes that organisational justice and values were significant predictors of employee turnover intention. The study recommended promoting fair practices, consistent policy implementation, effective grievance handling, and regular surveys to reduce organizational turnover intention.

Keywords: Organisational diversity Climate, Organisational justice, Identity, Values, Schemas, Communication, Employee turnover intention.

1. Introduction

Employee turnover is a critical concern for organizations worldwide, as high turnover rates can disrupt business operations, diminish organizational knowledge, and incur significant financial costs related to recruitment and training (Zhang et al., 2023; Dwesini, 2019). Understanding the predictors of turnover intention, a precursor to actual turnover is crucial for developing effective retention strategies. The concept of organizational diversity climate encompasses employees' perceptions of how their organization values and manages diversity. It includes identity, values, schemas, communication, organizational justice, and leadership (Yousaf & Radulescub, 2023). These components collectively shape an inclusive work environment where diverse employees feel respected and valued. A positive diversity climate has been associated with lower turnover intentions, fostering employees' sense of belonging and equity (Lee et al., 2021).

Identity and values are core elements of a diversity climate, reflecting how well employees believe their identities align with organizational values (Leslie & Flynn, 2024; Buengeler et al., 2018). When employees perceive that their identities are respected and the organization shares their values, their commitment and loyalty are likely to increase, thereby reducing turnover intentions (Wang et al., 2020). Similarly, schemas, cognitive frameworks that help individuals process information about diversity, play a crucial role

in shaping perceptions of inclusivity and fairness (Haque, 2021).

Effective communication is another vital component of a positive diversity climate. Transparent and inclusive communication practices can enhance employee trust and cooperation, mitigating feelings of exclusion and dissatisfaction that often lead to turnover (Platania et al., 2022). Furthermore, organizational justice, which pertains to the perceived fairness of decision-making processes and resource distribution, is closely associated with turnover intentions. Employees who perceive high levels of organizational justice are more likely to experience job satisfaction and organizational commitment, thus exhibiting lower turnover intentions (Suifan et al., 2017).
Leadership also significantly impacts the diversity climate and employee turnover intentions. Leaders who actively promote diversity and inclusion set the tone for organizational culture and practices, influencing employees' perceptions and behaviours (Vito & Sethi, 2020). Leadership commitment to diversity can enhance employees' sense of security and support, reducing the likelihood of turnover (Jolly & Self, 2020).

Despite the recognized importance of these factors, more comprehensive studies need to examine the interplay between various elements of diversity climate and employee turnover intention, particularly in diverse socio-economic contexts such as Nigeria. Nigerian organizations face unique challenges and opportunities related to diversity due to the country's multifaceted ethnic, cultural, and socio-political landscape (Torhemen et al., 2023). Therefore, exploring how organizational diversity climate influences turnover intentions within Nigerian organizations is imperative, providing insights that can inform tailored retention strategies and enhance organizational stability. This study addresses this gap by investigating the predictive role of identity, values, schemas, communication, organizational justice, and leadership on employee turnover intention in Nigerian organizations.

1.1 Statement of the Problem

Employee turnover is a persistent and costly challenge for organizations, leading to increased recruitment and training expenses, loss of institutional knowledge, and disruptions in workflow and productivity (Saini & Tarkar, 2024; De Stefano et al., 2019; Kasemsap, 2017). Organizations have increasingly focused on fostering a diverse and inclusive work environment to mitigate turnover, hoping that such initiatives will enhance employee satisfaction and retention. However, the effectiveness of diversity initiatives in reducing turnover intentions needs to be better established, and the specific dynamics within different cultural and organizational contexts still need to be explored.

In Nigeria, where organizational structures and cultural contexts may differ significantly from those in Western countries where much of the existing research has been conducted, it is essential to understand how organisational diversity climate impacts employee turnover intention. The relationship between organizational diversity climate and employee turnover intention in Nigerian organizations is not clearly defined in terms of other areas of organizational diversity climate, such as organizational justice, identity, values, schemas, and communication which may also play critical roles in influencing turnover intentions, yet their overall impact is not well understood.

1.2 Aim and objectives of the study

The study aimed to determine the role of organisational diversity climate in predicting employee turnover intentions.

Specific objectives include:

- To examine the role of diversity climate in predicting employee turnover intention
- To determine the role of organisational justice in predicting employee turnover intention
- To investigate the role of identity in predicting employee turnover intention
- To find the role of values in predicting employee turnover intention
- To identify the predictive role of schemas in employee turnover intention
- To establish the role of communication in predicting employee turnover intention

1.3 Hypotheses

The following hypotheses were tested in the study:

- Diversity climate will significantly predict employee turnover intention
- Organisational justice will significantly predict employee turnover intention
- Identity will significantly predict employee turnover intention
- Values will significantly predict employee turnover intention

- Schemas will significantly predict employee turnover intention
- Communication will significantly predict employee turnover intention

1.4 Scope of the Study

This study examines the relationship between organizational diversity climate and turnover intention among employees in Nigeria. It investigates the following components of diversity climate: organizational justice, identity, values, schemas, and communication. Using a quantitative approach, the study surveyed employees across various organizations in Nigeria to gather comprehensive data on their perceptions of the diversity climate and its impact on their intention to leave their organizations. The study is limited to employees in a service organisation in Nigeria.

1.5 Significance of the study

This study provides actionable insights for organizational leaders and HR professionals in Nigeria, highlighting the importance of fostering a positive diversity climate to reduce employee turnover. By understanding the impact of organizational justice, identity, values, schemas, and communication, organizations can develop targeted strategies to enhance employee retention. Furthermore, the findings can inform the development of organizational policies that promote diversity and inclusion. Policymakers can use this research to create guidelines and frameworks that support equitable treatment, improve communication, and align organizational values with diversity goals, ultimately contributing to a more inclusive workplace. Also, the study contributes to the theoretical understanding of the relationship between organizational diversity climate and employee turnover intention. Exploring this relationship in the Nigerian context adds to the body of knowledge on diversity climate's influence on employee behaviour, offering a basis for further research and theory development in organisational behaviour and human resource management.

2. Research Method

2.1 Design

The study utilized a correlational design consistent with the positivist research philosophy (Saunders et al., 2009). Correlational research examines relationships between variables without manipulation of the variables. It measures the strength and direction (positive or negative) of associations between two or more variables. This study's independent variable was organizational diversity climate, and the dependent variable was employee turnover intention. A correlational design was chosen to explore predictive relationships between these variables.

2.2 Participants

The study participants consisted of four hundred and thirty-one (N = 431) participants, with a mean age of 35.8 years (*SD* = 9), comprising 234 males and 197 female employees who were conveniently selected from a total of six organizations.

2.3 Sample Size Determination

The minimum sample size was determined using the G*Power software application for an F-test family linear multiple regression model, considering a small effect size of .15, an error probability α of .05, and a required statistical power of .80 (Faul et al., 2009). The power analysis for this study indicated a minimum sample size of three hundred and twenty-five (N = 325) participants. The study aimed to achieve a sample size of 431 (N = 431), considering larger sample sizes in psychological research (Hulbert-Williams et al., 2021).

2.4 Sampling Technique

The study utilized convenience sampling, a non-probability sampling method where participants meeting specific criteria (full-time employees with at least six months tenure) and expressing willingness to participate were chosen. Convenience sampling was justified by the ease of accessing participants who fit the inclusion criteria. In quantitative research, increasing sample size enhances the statistical power of convenience samples, although not all eligible individuals in the target population have an equal chance to participate (Suen et al., 2014).

2.5 Instrument for Data Collection

Workplace Diversity Inventory (WDI): Developed by Taylor (2011), the WDI has six dimensions: Identity, Values, Schemes, Communication, Diversity Climate, and Organisational Justice. The inventory evaluates perceptions across five organizational levels: individual, workgroup, supervisor, higher management, and organization. Respondents use a 7-point Likert scale ranging from "Very strongly disagree" (1) to "Very strongly agree" (7) to indicate their agreement with each item. Higher scores indicate more positive perceptions of workplace diversity. Subscales showed reliability with Cronbach's alphas

ranging from .67 to .91, and overall scale reliability was reported as Cronbach's alpha of .89 (Taylor, 2011).

The Turnover Intention Scale (TIS-6): The TIS-6, developed by Bothma and Roodt (2013), is a concise six-item instrument designed to measure employee turnover intention. It employs a five-point Likert scale ranging from 1 (never) to 5 (always) to gauge the intensity of responses. This scale was chosen for its brevity and established reliability and validity. The TIS-6 has shown good reliability with reported Cronbach's alpha coefficients of 0.80 (Bothma & Roodt, 2013) and 0.88 (Oosthuizen et al., 2016), indicating high internal consistency.

2.6 Procedure

Participants were selected from six organizations, approached at their workplaces by researchers, and informed that the study aimed to explore their feelings, beliefs, and opinions regarding their work environment and turnover intentions. Verbal consent was obtained after assuring participants of the study's confidentiality and voluntary nature. Researchers then distributed 456 questionnaires, allowing some busy participants to take them home. Ultimately, 431 valid questionnaires were returned. The retrieved questionnaires were collated, and the resulting data was appropriately coded and analysed.

2.7 Method of Data Analysis

Multiple Linear Regression (MLR) statistics were used as the statistical tools for testing the study hypotheses. Using this data analysis method, patterns in the relationships between the independent (Predictor) variables of organisational diversity climate and the dependent (Criterion) variable of employee turnover intentions were outlined.

Model Specification for Hypotheses Testing

The model for testing the study hypotheses is stated thus:

$ETI = \beta_O + \beta_1 DC + \beta_2 OrgJ + \beta_3 ID + \beta_4 VAL + \beta_5 SCH + \beta_6 COMM + e_1$ - 1

Where:

ETI = Employee turnover intention
DC = Diversity Climate
OrgJ = Organisational justice
ID = Identity
VAL = Values
SCH = Schemas
COMM = Communication
β_O = Coefficient
e_1 = Error term

3. Result

3.1 Inferential Result

Table 1: Model Summary of Employee Turnover Intention: Organisational Diversity Climate

R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
			R^2 Change	F Change	df1	df2	Sig. F Change
.044	.030	3.888	.044	3.214	6	424	.004

Table 1 shows the model summary of the predictive relationship between organisational diversity climate and employee turnover intention. The table indicated that $R^2 = .030$, $F(6, 424) = 3.214$, $p < .05$, which indicates that the model significantly accounted for 3% of the variance in employee turnover intention.

Table 2: Regression Coefficients for Employee Turnover Intention: Organisational Diversity Climate

Model	Unstandardized Coefficients		Standardized Coefficients	t	*p*-value
	B	Std. Error	β		
(Constant)	20.905	1.148		18.213	.000
Diversity climate	.010	.031	.017	.320	.749
Organisational justice	-.093	.042	-.117	-2.208	.028
Identity	-.041	.038	-.057	-1.065	.288
Values	.144	.041	.185	3.495	.001
Schemas	.035	.053	.032	.658	.511
Communication	-.061	.053	-.057	-1.150	.251

Table 2 shows the regression coefficients for the relationship between organisational diversity climate and employee turnover intention. The result revealed that diversity climate was not a significant predictor of

employee turnover intention (β = .017, t = .320, p > .05); organisational justice was a significant negative predictor of employee turnover intention (β = -.117, t = -2.208, p < .05); implying that the higher the level of organisational justice, the lower the level of employee turnover intention. Identity was not a significant predictor of employee turnover intention (β = -.057, t = 1.065, p > .05); however, Values were a significant positive predictor of employee turnover intention (β = .185, t = 3.495, p < .05); indicating that the higher the level of values in the organization, the higher the level of employee turnover intention. Furthermore, the schema was not a significant predictor of employee turnover intention (β = .032, t = .658, p > .05); also, communication was not a significant predictor of employee turnover intention (β = -.057, t = -1.150, p > .05).

4. Discussion

Findings revealed no significant predictive relationship between diversity climate and employee turnover intention. This contrasts with studies that revealed that fairness and inclusion emerged as central in organizational policies' impact on employees' loyalty and desire to exit an organization (Platania et al., 2022; Mansoor et al., 2021; Jung et al., 2017). The non-significant relationship between diversity climate and employee turnover intention in Nigerian organizations suggests that several factors may contribute to this outcome. Firstly, diversity initiatives within these organizations might need to adequately address employees' concerns and experiences related to diversity and inclusion.

Consequently, employees may perceive these efforts as superficial or irrelevant to their daily work experiences and career goals. Additionally, Nigeria's cultural dynamics and societal norms can shape how diversity initiatives are perceived and valued. If these initiatives do not align with cultural expectations or fail to resonate with employees' values, their perceived impact on turnover intention may be diminished. Furthermore, turnover intention is influenced by a complex interplay of factors beyond diversity, including job satisfaction and career development opportunities. As such, the direct impact of diversity climate on employees' decisions to stay or leave the organization may be overshadowed by these broader influences.

Results indicated that organisational justice significantly negatively predicted employee turnover intention. This aligns with Bindu and Srikanth's (2019) findings, which revealed a negative correlation between all organizational diversity climate dimensions and employee turnover intention. Also, Ward et al. (2022) found a reciprocal relationship between organizational diversity climate and employee turnover intention. The significant negative relationship between organizational justice and employee turnover intention indicates that fair and equitable treatment within Nigerian organizations plays a crucial role in mitigating turnover. Employees who perceive their organization as fair and just are less likely to entertain thoughts of leaving, as they feel respected and valued (Coelho, 2024). This finding underscores the importance of transparent decision-making processes, consistent application of policies, and equitable opportunities for growth and advancement. In the Nigerian context, where fairness and trust in organizational leadership may be particularly salient, enhancing organizational justice can be a potent strategy for reducing turnover and fostering a positive work environment.

Furthermore, findings revealed that identity did not significantly predict employee turnover intention. This contrasts with studies that revealed that social identification predicted turnover intention (Hu et al., 2022; Wen et al., 2016; Avanzi et al., 2014). The non-significant relationship between identity and employee turnover intention in Nigerian organizations may be attributed to several factors. While identity factors such as ethnicity, gender, or cultural background are essential aspects of diversity, their direct impact on turnover intention may be influenced by broader organizational dynamics and individual perceptions of inclusion. Also, Nigerian employees may prioritize other factors, such as organizational justice, job satisfaction, and career development opportunities, over identity-related concerns when considering their longevity within the organization (Akpan et al., 2023).

The study results also indicated a significant positive relationship between organizational values and employee turnover intention. This contrasts with the findings of Li et al. (2023), which showed that workplace values lowered employees' turnover intentions. Also, Rani and Samuel (2016) revealed that the fit and mismatch between organizational and personal work values significantly affect the employees' turnover intention. The significant positive relationship between organizational values and employee turnover intention suggests that discrepancies between stated organizational values and actual practices may contribute to turnover. When employees perceive a misalignment between the organization's espoused values and its operational realities, their trust and commitment to the organization may be undermined, leading to higher turnover intentions.

Findings revealed that schema was not a significant predictor of employee turnover intention. This does not align with the findings of Garg et al. (2023), which revealed a negative effect of workplace schema on employee turnover intention. The non-significant relationship between schemas and employee turnover intention in Nigerian organizations may indicate that individual cognitive structures regarding work and organizational environment do not significantly influence turnover decisions. While necessary for overall job satisfaction and engagement, employees' perceptions and interpretations of their work environment may not directly translate into intentions to leave the organization (Uddin et al., 2021).

Lastly, results revealed that workplace communication did not significantly predict employee turnover intention. The finding agrees with the study of Hidayat and Tannady (2023), which found that communication did not significantly predict employee turnover intention. However, the outcome disagrees with studies that indicated that communication significantly negatively predicted employee turnover intention (Abdien, 2019). The finding that communication was not a significant predictor of employee turnover intention in Nigerian organizations suggests that communication practices alone may not strongly influence employees' decisions to stay or leave. While effective communication is essential for organizational transparency, clarity, and employee engagement, its direct impact on turnover intention may be overshadowed by other factors, such as organizational justice and job satisfaction (Matthews, 2022).

5. Limitations of the Study

The study has several limitations. The use of convenience sampling may limit the generalizability of the findings, as not all eligible members of the target population had an equal chance of participating. Also, data collected through self-reported questionnaires might be subject to biases such as social desirability or inaccurate self-assessment. Lastly, the study's correlational design restricts the ability to infer causality between organizational diversity climate and employee turnover intention.

6. Implications of the Study

The findings from this study have several significant implications for organizational management and human resource practices in Nigeria. Firstly, the non-significant relationship between diversity climate and employee turnover intention suggests that more than diversity initiatives are needed to retain employees. Furthermore, the significant negative relationship between organizational justice and employee turnover intention underscores the crucial role that fair and equitable treatment plays in employee retention. Also, the positive relationship between organizational values and turnover intention presents a paradox. While one might expect organizational solid values to enhance retention, the findings suggest that overemphasizing organizational values may increase turnover. This could be due to a misalignment between the organization's values and those of the employees, leading to dissatisfaction and a higher likelihood of leaving. The lack of significant predictive power of identity, schemas, and communication on turnover intention suggests that these factors, in isolation, do not strongly influence employees' decisions to stay or leave. However, this does not imply that these factors are unimportant. They might interact with other organizational dynamics in complex ways that were not captured in this study.

7. Conclusion

This study examined the predictive relationship between organizational diversity climate and employee turnover intention in Nigeria, revealing several key insights. Diversity climate was not a significant predictor of turnover intention, indicating that more than diversity initiatives alone may be needed in retaining employees. However, organizational justice emerged as a significant negative predictor, highlighting the importance of fair and equitable treatment in reducing turnover. Surprisingly, higher organizational values were associated with increased turnover intention, suggesting a potential misalignment between organizational and personal values. Factors such as identity, schemas, and communication did not significantly predict turnover intention. These findings underscore the need for a comprehensive approach to employee retention that prioritizes organizational justice and aligns values with employees' values beyond mere diversity initiatives.

8. Recommendations

Based on the study findings, the following recommendations are made:

Enhance Organizational Justice: Given that organizational justice significantly reduces turnover intention, organizations should prioritize fair and transparent practices. This includes consistent policy

implementation, fair treatment in decision-making, and effective grievance handling. Training for managers on equitable practices can also strengthen perceptions of justice.

Align Organizational Values with Employee Values: The positive relationship between organizational values and turnover intention suggests a possible misalignment between the organization's values and those of its employees. Organizations should conduct regular surveys to understand the values and motivations of their workforce and ensure that the organization's values are communicated clearly and resonate with employees. Efforts to align organizational and personal values may reduce turnover intentions

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Environmental Sustainability Disclosures and Financial Performance of Listed Oil and Gas Companies in Nigeria: An Application of Driscoll-Kraay Standard Errors Approach

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Abstract. The oil and gas industry in Nigeria, a vital contributor to the nation's economy, has long been associated with significant environmental challenges. This empirical study explores the relationship between environmental sustainability accounting practices and the financial performance of eight listed oil and gas companies on the Nigerian Stock Exchange Market (NGX) as of January 17, 2022, in Nigeria. The study employed Driscoll-Kraay standard errors and revealed that environmental accounting had significant effects on returns on assets, earnings per share, and liquidity ratio. The study revealed that the implementation of environmental accounting practices had diverse effects on the performance of oil and gas companies in Nigeria. The findings encourage policymakers and stakeholders in the sector to utilise insights on the potential benefits and challenges associated with adopting environmental accounting practices, and design more effective regulations and incentives that promote environmental corporate responsibility. The study reported other significant policy-oriented findings.

Keywords: Environmental sustainability accounting; Financial performance; Oil and gas companies; Nigeria; Driscoll-Kraay standard errors.

1. Introduction

Climate change, global warming, ozone layer depletion, pollution, and ocean acidification are some of the key environmental issues the world currently experiences. These key issues are direct consequences of business, organizations, companies and firms not being mindful of the effect of their business operations on the environment, society, and economy. For many years, stakeholders have been clamoring for organizations to be held responsible for the impact of their activities on the environment because of the imbalances in the environmental system. The environmental system is imbalanced, and stakeholders have been demanding that organisations be held responsible for their activities' effects on the environment for a long time (Owolabi, *et al.,* 2022; Adamkaite, *et al.,* 2022). The success of every business organization is largely dependent on revenue and the benefits to the environment, society, and economy.

Concern and attention are growing among countries and organisations regarding the necessity of environmental accounting. This has emerged as an essential issue for business organisations and nations due to the critical role that the environment plays in the progress and growth of both entities (Owolabi *et al.,* 2022). Environmental sustainability accounting as an aspect of corporate social responsibility is a crucial phenomenon that is very vital to the life of any business organization. With the increase in the awareness of stakeholders about the impact of corporate organisations' activities on the environment, organizations must adapt to the expectations and demands of stakeholders (Adamkaite *et al*., 2022). According to Ohidoa *et al*. (2016), businesses, particularly those whose operations have an impact on the environment, ought to be transparent about their financial commitments to improving the environment. This is especially true for businesses whose operations

involve pollution and other environmental hazards. Environmental sustainability disclosure in yearly reports is still a current problem in research. Ordu and Amah (2021) claim that non-financial reporting is expanding because of increased awareness among businesses, stakeholders, and shareholders about how these problems ultimately impact a company's long-term performance.

In a developing economy like Nigeria, there is no definite accounting standard or guideline that requires organizations to report the impact of their activities in their annual reports. Environmental concerns in Nigeria and elsewhere reduce life expectancy. Thus, the Companies and Allied Matters Act (CAMA), International Accounting Standards (IAS), and International Financial Reporting Standards (IFRS) do not require quantitative or qualitative disclosure of (financial) environmental accounting information in annual reports. There is no mandatory Stock Exchange listing requirement for Nigerian companies to disclose environmental accounting information, but the Nigerian Stock Exchange's 2018 sustainability reporting Guideline advised corporations to disclose environmental events. Thus, Nigerian environmental accounting disclosure is voluntary, which discourages it (Osaloni & Oso, 2023; Owolabi *et al.*, 2022).

The oil and gas sector, as one of the major contributors to the emission of greenhouse gases, has come under public scrutiny and is expected to act and reduce its negative impact on the environment. The oil and gas sector plays a vital role in the growth and development of the Nigerian economy and the achievement of sustainable development goals. Oil and gas companies are profit-oriented enterprises like other companies and strive to improve their financial performance. Every company that makes a profit strives to improve its corporate financial performance, which is used to gauge the productivity and effectiveness of its managers. Every company can benefit from a healthy, long-lasting competitive advantage if it can devote its people and resources to strategic tasks that improve organizational performance while adhering to moral and ethical standards (Makhdoom, *et al.*, 2023; Osaloni & Oso, 2023). Any organization's performance will be continuously evaluated, resulting in the timely and important information that managers need to make decisions that will advance the organization and enhance their operations (Makhdoom, *et al.*, 2023). The major methods of financial analysis are used to value a company's overall financial performance. To forecast a company's future growth, stability, and health, financial analysis is used. Based on the intended application, timing, and nature of the information resources, the best financial analysis approach should be chosen (Adamkaite, *et al.*, 2022; Pham, *et al.*, 2021).

Numerous elements, which may be divided into micro and macro factors, influence how well organizations operate financially. Additionally, they exert a substantial influence on the valuation of a company's financial performance (Amosun *et al.*, 2022). Financial performance is typically measured by return on assets, earnings per share, return on equity, and net profit margin. Factors such as liquidity, ownership, age and size of the firm, leverage, productivity, solvency, and restrictions in the available resources are affected by micro factors, while macro factors encompass exogenous factors that exert an influence on the financial state of companies (Amosun et al, 2022). An imbalance in business, the economy, and the world might result from financial crises (Pham, *et al.*, 2021).

In the global community, corporate entities are confronted with economic, social, and environmental responsibilities, duties, and functions. Businesses face significant obstacles in the current economic climate when attempting to strike a balance between financial performance and corporate sustainability. The global development, growth, and survival of corporations are predominantly contingent upon the financial performance and operational efficacy of their management (Chiamogu & Okoye, 2020). Companies in Nigeria voluntarily provide information about their environmental responsibility efforts in their financial reports. Many organizations include qualitative or quantitative information about their efforts to uphold environmental stewardship in their financial reports. The effectiveness of management in managing people and resources in any organization is very tactical in contributing to the synergy between social and environmental accounting information and a company's financial performance. This study is therefore aimed at determining the effect of environmental accounting on the performance of listed oil and gas companies in Nigeria.

Conceptually, performance is an inclusive term that encompasses any aspect or the entirety of an organization's activities over a period of time, typically evaluated in relation to past or anticipated cost effectiveness, managerial responsibility, or liability (Chiamogu & Okoye, 2020). Ehioghiren and Eneh (2019) define performance as a collection of financial and non-financial indicators that furnish all stakeholders with insight into the organization's management's capability to accomplish the predetermined goals for the fiscal period. Financial

performance evaluates the effectiveness with which a company converts its primary business assets into profit, in addition to identifying the financial consequences of its operational strategies and procedures (Al-Waeli et al., 2021). According to Pham et al. (2021), financial performance pertains to the degree to which an organisation has achieved its financial objectives. Financial performance is an inherently subjective metric that assesses the efficiency with which an organisation utilises its core business assets to produce income. It provides an indication of the overall health and actual financial standing of a company (Eze, 2021).

The phrase green or environmental or sustainability accounting might signify different things to different people. A common understanding is that "green accounting" refers to the practise of tracking and reporting expenses that have an impact on the environment (Nkwoji, 2021). Providing objective evidence of environmental circumstances, environmental accounting focuses on a firm's environmental performance statistics (Ordu & Amah, 2021). Financial and non-financial information are both included. Additionally, green accounting is defined by Makhdoom et al. (2023) as a way to economically measure an organization's performance regarding the environment. Information regarding the operational performance of the company in relation to environmental protection is the aim. Shareholders and bondholders are the only parties who can use conventional accounting to make decisions based on financial data. The goal of "green accounting" is to include in the monetary impact on the environment when calculating business profits. There is a common understanding that environmental accounting is a collection of activities undertaken by organisations to track and report on how well they are doing in terms of protecting the environment (Adegbie *et al*., 2020)..

Empirically, many academics are interested in the empirical effects of environmental accounting on performance, but their studies have led to diverse findings. A study by Ezeagba *et al*. (2017) examined the relationship between environmental accounting disclosure and return on assets. The study focused on the financial performance of food and beverage enterprises in Nigeria. Listed Nigerian oil and gas businesses' financial performance was studied by Nwafor *et al*. (2021) in relation to green environmental accounting. The research concluded that the chosen oil and gas businesses' financial performance was positively impacted by green environmental accounting. The findings of Saman (2019) and Chiamogu and Okoye (2020) are in agreement with this conclusion. Two oil and gas companies listed on the Nigerian Stock Exchange (from 2010 to 2014) had their earnings impacted by corporate social responsibility, according to Eze *et al.* (2016). Companies' publicly available annual financial records provided the data used in the study, which employed a basic linear regression method for analysis. The results showed that CSR significantly and positively affects profits.

Extant studies (Owolabi *et al*., 2022; Adamkaite *et al*., 2022; Emeke *et al*., 2021) have also looked at how social and environmental disclosures affect the performance of consumer goods and manufacturing companies. Based on the results, Emeke *et al*. (2021) found that the impact of social and environmental disclosure on return on assets was unaffected by firm size or age, but that it did significantly affect earnings per share. The Nigerian oil and gas firms' CSR initiatives and earnings per share were studied by Owolabi *et al*. (2022). Their research showed that oil and gas companies' profits were unaffected by their CSR initiatives. An investigation into the effect of CSR on energy companies' bottom lines was conducted by Adamkaite *et al*. (2022) in Lithuania. Corporate social responsibility and financial performance were shown to have no relationship, according to the study. Osaloni and Oso (2023), Makhdoom *et al*. (2023), Amosun *et al*. (2022), and Ilelaboye and Alade (2022) were among the papers that found that social and environmental accounting significantly affected the profitability of financial institutions. According to research by Ilelaboye and Alade (2022), listed Nigerian family-owned businesses' financial performance suffered due to environmental accounting. Environmental accounting information has a substantial effect on the financial performance of manufacturing enterprises, according to Osaloni and Oso (2023). Environmental CSR, business performance, and partnership restructuring were found to be positively correlated by Makhdoom *et al*. (2023), who established a link between the two. In addition, the results showed that the connection between environmental CSR and partnership restructuring was decreased by industrial power and dysfunctional competition.

The novelty of this study is depicted in addressing the pitfalls of environmental practices and disclosure patterns concerning the financial performance of Nigeria's oil and gas sector, which is a sector that is actively involved in the exploration of natural resources and the destruction of the environment, and which should ordinarily be responsible to the environment and society in return. Also, most studies on environmental, social, and governance (ESG) practices and financial performance have been

accomplished in developed economies, with limited attention given to emerging markets, particularly Nigeria, where ESG practices differ significantly due to regulatory, cultural, and socioeconomic factors. Research is needed to understand how specific variations in ESG practices, especially environments, affect the financial performance of oil and gas companies, particularly in Nigeria. Also, much of the existing literature tends to focus on individual ESG factors, such as environmental performance or social responsibility, rather than examining the holistic impact of ESG practices on financial performance. There is a need for studies that analyze the combined effects of various ESG factors on financial outcomes, especially in the context of the oil and gas industry. Lastly, there is ongoing debate regarding the appropriate methodologies and metrics for measuring ESG performance and its relationship with financial outcomes. Many existing studies rely on self-reported data, which is largely subject to biases and inaccuracies. Standardized metrics for ESG, like the Global Reporting Initiative (GRI), are needed to facilitate comparability and enhance the validity of findings across studies. In addition, more robust methodologies such as Driscoll-Kraay standard errors, which are robust to serial correlation and provide reliable estimates even in the presence of heteroscedasticity (which is often a cross-section issue), are appropriate in the presence of short time-series or limited cross-sectional observations such as this present study.

The remaining sections of the paper are structured as follows: Section 1 is an introduction and identifies gaps in the literature; Section 2 presents the data measurements and sources; In Section 3, we discuss theory development and hypotheses. Section 4 gives a summary of the methods and data sources, including modeling techniques, variable measurement, and empirical strategy employed in the study; Section 5 explores the empirical findings and goes into detail about the results and discussions; and Section 6 concludes and discusses policy implications.

2. Data and Measures

2.1 Performance Measures

Companies' performance can be measured in a number of ways. The most popular approaches used by academics and researchers to assess financial performance are those based on market indicators and accounting measures. Scholars agree that accounting-based measures, or market-based indicators, are the best ways to assess financial success (Achim & Borlea, 2014). Commonly used accounting-based metrics include net profit margin, return on equity, return on sales, return on capital utilised, and return on asset. Although they are frequently employed, market-based metrics such as price-book ratio, dividend yield, earnings per share, and dividend per share, Tobin's Q, and earnings yield. For this study, the accounting-based measures used were return on assets and liquidity, while the market-based measure used was earnings per share.

Ezeagba *et al*. (2017) assert that return on assets is a comprehensive indicator of operational efficiency. Return on assets (ROA) is a crucial number used by shareholders to evaluate the effectiveness of management in utilising the average amount of investment in the company's assets, regardless of whether the investment comes from investors or creditors. The ROA indicator is a highly effective metric for evaluating the financial robustness and operational effectiveness of a company. This ratio is crucial for management to assess the performance of enterprise assets in relation to planned business objectives and market rivals (Diaz & Pandey 2019). Lalithchandra and Rajendhiran (2021) contend that liquidity is a crucial indicator of a company's capacity to meet its financial obligations promptly. Liquidity ratios demonstrate the capacity of a business to fulfil its immediate financial obligations. If these ratios reflect weakness, it suggests that the organisation may encounter challenges in meeting its short-term financial liabilities (Amengor, 2010). According to Choiriyah *et al*. (2020), earnings per share is a ratio that measures the effectiveness of management in generating profits for shareholders. It displays the portion of a company's net profit that is allocated to all shareholders of the company. Earnings per share (EPS) is a financial metric that quantifies a company's capacity to earn net profits per share (Sudirman *et al*., 2020).

2.2 Environmental Sustainability Measures

Studies on environmental accounting have been surrounded by diverse measurements such as environmental disclosure score, ESG score, Global Reporting Index (GRI), Fortune magazine reputation index, MSC KLD 400 social index, Vigeo Index and Dow Jones Sustainability Index, as well as content analysis and definitions based on researchers' methodologies, research approaches, and the scope of their studies. One of the best measures, according to recent literature (Osaloni & Oso, 2023; Ilelaboye & Alade, 2022; Adegbie *et al*., 2020; Oti & Mbu-Ogar, 2018), that captures several aspects of ESG is the GRI. In this study, the GRI framework was employed to assess environmental accounting, as only a limited number of studies have utilised this index in the

literature. Environmental accounting was evaluated through the utilisation of waste management disclosure (WMD), community development disclosure (CDD), and employees' health and safety disclosure (EHSD). Oti and Mbu-Ogar (2018) defined employee health and safety disclosures as reports or programmes designed to safeguard employees against the actions of organisations.

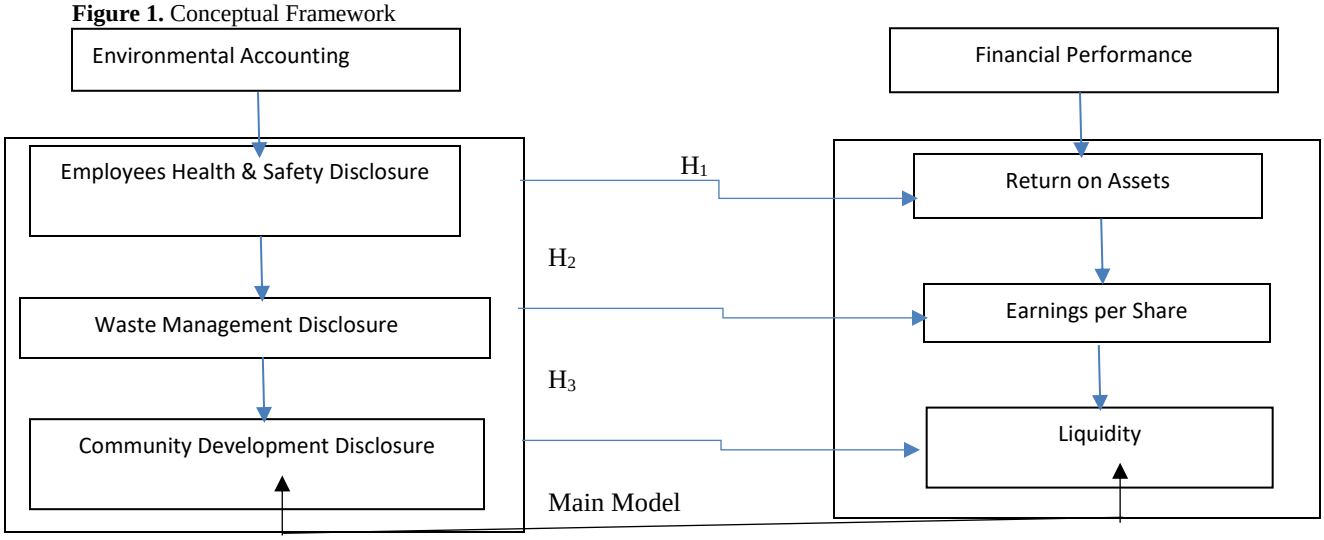
For WMD, Osaloni and Oso (2023) argue that WMD is the disclosure of a company's physical management of waste, reduction of waste generation, and promotion of reuse and recycling. Adegbie et al (2020) opined that WMD is a measure introduced by organizations to avoid or reduce waste. It covers the cost of the treatment of waste, management of waste, pollution, reparation, resourcing, and conservation. Regarding CDD, a company's relationship with its host community can be managed by disclosing its environmental and social initiatives (Banwarie, 2011). This creates a stable business climate free from protest or conflict and is affected by important stakeholders. Ilelaboye and Alade (2022) define CDD as costs incurred by organizations for the good of society and a clean environment for communities.

2.3 Theory Development and Hypotheses

This study is anchored on the signaling theory. Michael Spence introduced the signaling theory in 1973. This concept posits that business directors engage in voluntary disclosure, which includes the disclosure of social responsibility and the manipulation of market asymmetry to convey precise signals to the market demonstrating the favourable performance of their organisations. The signaling theory provides clarity on how companies employ diverse boards to convey their commitment to social values to a variety of organisations. Information asymmetry occurs when people get different information. Signaling theory helps reduce information asymmetry and ensures all stakeholders get the same information, which will aid in making sound decisions.

The hypotheses provided in the null form, depicted in the conceptual framework in Figure 1, are to be tested to examine the effect of environmental accounting on the financial performance of oil and gas companies in Nigeria:

Figure 1. Conceptual Framework



Source: *Researchers' Computation*

3. Methods and Data Sources

In empirical research that involves time-series and cross-sectional data with potential correlation and heteroscedasticity, using appropriate standard errors is crucial to making accurate statistical inferences (Driscoll & Kraay, 1998). In the context of this study that investigates the relationship between environmental accounting and the financial performance of listed oil and gas companies in Nigeria, the Driscoll-Kraay (DK) standard errors offer several justifications by addressing serial correlation which often a characteristic of time-series data where observations at different time points are correlated. The presence of serial correlation can lead to biased estimates and inefficient standard errors if not properly accounted for. Driscoll-Kraay standard errors are robust to serial correlation and provide reliable estimates even in the presence of autocorrelation (Driscoll & Kraay, 1998; Joshi, Dalei & Mehta, 2021); by

handling heteroscedasticity which is often a cross-section issue. In financial data and other economic time series, heteroscedasticity (unequal variance of errors) is a common issue. Heteroscedasticity can result in standard errors that are biased and can lead to erroneous statistical inferences. Driscoll-Kraay standard errors are robust to heteroscedasticity, ensuring accurate estimates of coefficients and valid hypothesis tests (Driscoll & Kraay, 1998; Iheonu, Asongu & Odo, 2020).

Also, the Driscoll-Kraay standard errors are especially appropriate in the presence of short time series or limited cross-sectional observations such as this present study. The flexibility in modeling and robustness to misspecification are other desirable features of the Driscoll-Kraay standard errors. It does not require strict assumptions about the underlying data distribution. The model specifications can be linear or non-linear models, making them suitable for various empirical analyses (Driscoll & Kraay, 1998; Joshi, Dalei & Mehta, 2021). Its robustness to certain forms of model misspecification enhances the validity of results in case of model uncertainty (Driscoll & Kraay, 1998). Lastly, Driscoll-Kraay standard errors are particularly suitable for panel data models, offering advantages over traditional standard errors (pooled OLS, fixed-effect, and random effect) in dealing with correlation and heteroscedasticity in this context (Driscoll & Kraay, 1998). Since this study focuses on listed oil and gas companies in Nigeria which involves panel data with repeated observations for each firm over time, the likelihood of one form of spatial dependence or others in the panel sample would produce inconsistent standard errors. Hence, the usual ordinary least square (OLS), fixed effect, and random effect standard errors become ineffective.

Following several studies on the link between environmental accounting disclosures and financial performance (Makhdoom et al., 2023; Osaloni & Oso, 2023; Ilelaboye & Alade, 2022; Amosun *et al.*, 2022; Owolabi *et al.*, 2022; Nwafor *et al.*, 2021; Emeke *et al*., 2021; Chiamogu & Okoye, 2020;), the functional model is specified as:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \varepsilon_{it} \quad [1]$$

Where Y_{it} is a $(3 * 1)$ vector of indicators of financial performance of Oil and Gas sector at time, t and firm i, while X_{it} represents a $(3 * 1)$ vector of variables of environmental accounting disclosure at time, t and firm i. The financial performance (PER) of Oil and Gas sector is measured by Returns on assets (ROA), Earning per share (EPS), and liquidity (LIQ) while environmental accounting disclosures were measured using waste management disclosure (WMD), community development disclosure (CDD), and employees' health and safety disclosure (EHSD). Thus, the empirical model is specified as:

$$PER_{it} = \beta_0 + \beta_1 EHSD_{it} + \beta_2 WMD_{it} + \beta_3 CDD_{it} + \varepsilon_{it} \quad [2]$$

Where PER_{it} is a $(3 * 1)$ vector financial performance (proxied by Returns on assets (ROA), Earning per share (EPS), and liquidity (LIQ)) at time, t and firm i, and $EHSD_{it}$ represents employees' health and safety disclosure at time, t and firm i; WMD_{it} represents waste management disclosure at time, t and firm i; CDD_{it} represents community development disclosure at time, t and firm i while ε_{it} is the firm specific disturbance term. $t = 2011 - 2022$ while $i = 1, \ldots, 8$. Table 1 and Table 2 present the variable definition/measurements and the list of selected eight (8) oil & gas companies listed on the NGX as of 17th January 2022.

Table 1: Variable Definition and Measurements

Variable	Measurement	Justification
Return on Asset (ROA)	$\frac{profit\ after\ tax}{total\ assets}$ x 100	Emeke et al (2021), Diaz & Pandey (2019)
Earnings per Share (EPS)	(Earnings available to ordinary shares)/(weighted ordinary shares in issues) x 100	Emeke et al (2021), Choiriyah et al., (2020), Sudirman et al., (2020), Saman (2019)
Liquidity Ratio (LIQ)	$\frac{current\ asset - inventory}{current\ liabilities}$	Lalithchandra & Rajendhiran (2021), Emeke et al (2021), Saman (2019)
Employees Health & Safety Disclosure (EHSD)	GRI Index	Ilelaboye & Alade (2022), Adegbie et al (2020), Oti & Mbu (2018)
Waste Management Disclosure (WMD)	GRI Index	Adegbie et al (2020), Nwaimo (2020), Oti & Mbu (2018).
Community Development Disclosure (CDD)	GRI Index	GRI (2021) Oti & Mbu (2018), Adegbie et al (2020), Nwaimo (2020), Ilelaboye & Alade (2022).

Source: *Researchers' Compilation*

Table 2: List of Oil & Gas Companies Listed on the NGX as of 17th January 2022

S/N	Companies	Primary Business	Exchange Sector
1	11 Plc	Petroleum Station	Oil and Gas
2	Ardova Plc (Forte Oil)	Integrated Oil and Gas	Oil and Gas
3	Conoil Plc	Oil and Gas Refining and Marketing	Oil and Gas
4	Eterna Plc	Oil and Gas Refining and Marketing	Oil and Gas
5	Japaul Gold& Ventures Plc	Oil and Gas Refining and Marketing	Oil and Gas
6	Mrs Oil Nigeria Plc	Oil and Gas Refining and Marketing	Oil and Gas
7	Oando Plc	Integrated Oil and Gas	Oil and Gas
8	Total Energies Marketing Nigeria Plc	Oil and Gas Refining and Marketing	Oil and Gas

4. Results and Discussion

4.1 Descriptive Statistics and Correlation Analysis

To give background knowledge on the variables, it is crucial to talk about the descriptive statistics of the ones used in the study. Table 4 displays the correlation matrix of the variables used in the study, whereas Table 3 displays the descriptive statistics. The average of 17.16 return on asset implies that 17.16% is the proportion of the return generated per naira of total asset utilized; while the average of earnings per share shows that the reported earnings of equity share are 4.60 kobo, while 1.01 of liquidity indicates that on average of Oil & Gas Companies can pay short term debts immediately. The average of 0.96 of Employees' Health and Safety Disclosure (EHSD) indicates that on average seven (7) Oil and Gas companies reported employees' health and safety disclosure in their annual report, 0.10 of Waste Management Disclosure (WMD) indicates that on average one (1) company reported about WMD in its annual report; while 0.49 of Community Development Disclosure (CDD) indicates that on average three (3) companies reported about CDD in their annual report. The minimum values of ROA, EPS, and LIQ indicate that there are periods of reported losses by the selected companies. The Employees Health & Safety Disclosure (EHSD), Waste Management Disclosure (WMD), and Community Development Disclosure (CDD) each have a minimum value of 0.00, indicating that some firms have various levels of Environmental Accounting practices proxies among themselves. However, the result presented in Table 3 revealed that Return on Asset (ROA) and Earnings per Share (EPS) exhibited the greatest degree of dispersion from the mean at 75.3% and 8.49%, respectively. In contrast, Liquidity (LQ), Employees Health & Safety Disclosure (EHSD), Waste Management Disclosure (WMD), and Community Development Disclosure (CDD) displayed standard deviations of 0.82%, 0.50%, 0.31%, and 0.21%, respectively. These values suggest that there were fluctuations within the dataset under consideration.

The correlation matrix presents the level of multicollinearity among the independent variables of the research in Table 4. The findings revealed that the correlation between EHSD and WMD was 8.2%, whereas the correlation between CDD and EHSD was 21.3%. Neither of these correlations exceeded the 80% threshold for multicollinearity proposed by Baltagi (2015). Therefore, the research concluded that the issue of multicollinearity among the independent variables does not arise. Furthermore, the findings presented in Table 4, including the Variance-Inflation Factor (VIF), corroborated the conclusions drawn from the correlation matrix that multicollinearity is not an issue among the independent variables. This is supported by the variables' mean VIF value of 1.78, which is below the recommended thresholds of 5 or 10 as proposed by James, Witten, and Tibshirani (2017).

Table 3: Descriptive Statistics of the Variables

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	96	17.02163	75.32424	-55.75645	545.408
EPS	96	4.600182	8.487763	-20.23	43.58
LIQ	96	1.014055	0.8161189	-1.15851	6.364849
EHSD	96	0.9545455	0.2094926	0	1
WMD	96	0.1022727	0.3047431	0	1
CDD	96	0.4886364	0.5027355	0	1

Note: *ROA, EPS, LIQ, CDD, WMD, EHSD represent Returns on assets, Earning per share, liquidity, Community development disclosure, Waste management disclosure, and Employees' health and safety disclosure respectively*

Table 4: Correlation Analysis for Oil & Gas Companies

Correlation Matrix				Variance-Inflation Factor (VIF)	
	EHSD	WMD	CDD	VIF	1/VIF
EHSD	1.0000			1.05	0.948089
WMD	0.0737	1.0000		1.01	0.992401
CDD	0.2133	-0.0298	1.0000	1.05	0.952411
				Mean VIF = 1.04	

Note: *CDD, WMD, EHSD represent Community development disclosure, Waste management disclosure, and Employees' health and safety disclosure respectively*

4.2 Stationarity and Cross-Sectional Dependence Tests

One major observation in the model is the assumption of interdependence among the oil and gas companies. Environmental disclosures tend to ensure collective sustainability decision-making for the companies since this is one of the requirements of global environmental management. Built on this argument, this work adopts tests for cross-sectional dependence among the companies using the cross-sectional unit root test and cross-sectional dependence test. These tests determine whether series are heterogeneous. Table 5 contains the outcomes of the unit root test conducted on the variables. At each level, the results indicate that every variable is stationary. Hence, it can be concluded that the variables adopted in the models do not lead to spurious regression. Moreover, to check for cross-sectional dependence among the oil and gas companies, we adopt three cross-sectional tests (Perasan, Frees, and Friedman tests). The results, in Table 6, show that the models exercise a high cross-sectional dependency as shown by the significance levels. All three methods reported cross-sectional dependence among the oil and gas companies.

Table 5: Cross-sectional augmented Im, Pesaran, and Shin (CIPS) Unit Root Test

Variables	CIPS Values	Decision
ROA	-2.155**	I(1)
EPS	-3.901***	I(1)
LIQ	-5.215***	I(1)
EHSD	-5.279***	I(1)
WMD	-4.923***	I(1)
CDD	-2.123**	I(1)

Notes: ***, ** and * indicate 1%, 5% and 10% significant levels respectively.

Table 6: Cross-Sectional Dependence Tests

Tests/Models	ROA Model	EPS Model	LIQ Model	Overall Model
Pesaran	8.358***	13.214**	5.551**	7.118***
Friedman	113.518**	121.265***	102.511***	112.025***
Frees	1.6694**	1.892**	1.501**	1.708***

Notes: ***, ** and * indicate 1%, 5% and 10% significant levels respectively.

4.3 Effect of Environmental Sustainability Accounting on Financial Performance

Table 6 presents the outcomes of the cross-sectional dependence tests, which indicate the presence of cross-sectional dependence among companies. Consequently, the conventional ordinary least square (OLS), fixed effect, and random effect standard errors are rendered inapplicable, rendering their interpretations superfluous. In order to address the challenges associated with cross-sectional dependence, correlation, and heteroscedasticity in the panel of oil and gas companies, the Driscoll-Kraay standard errors presented in Table 7 are interpreted. The findings presented in Table 7 indicate that Employees Health & Safety Disclosure (EHSD) has a statistically significant adverse impact on the performance of publicly traded Oils and Gas firms, as measured by Returns on Assets (ROA) (β_1= -85.77, p<0.05). However, it has a significant positive influence on the performance of such firms as measured by Earnings per Share (EPS) (β_2= 3.166, p<0.05), and on the performance of publicly traded Oils and Gas companies as measured by Liquidity (β_3= 0.831, p<0.05). Based on this result, a one-unit increase in EHSD is associated with an 85.77 unit decline in ROA, while EPS and LIQ increase by 3.166 and 0.831 units, respectively, for the selected oil and gas corporations in Nigeria. As measured by Returns on Assets (ROA), the adverse impact of Employees Health & Safety Disclosure (EHSD) on the financial performance of publicly traded oil and gas companies is multifaceted. Accidents, infections, and injuries among personnel may ensue due to substandard health and safety protocols, which may ultimately cause operational disruptions and diminished productivity.

This aligns with the findings of previous studies (Osaloni & Oso, 2023; Owolabi, *et al.*, 2022; Adamkaite, *et al*. 2022; Eze, 2021; Ehioghiren & Eneh, 2019) that EHSD can have a significant impact on the company's capacity to produce returns on its assets, as periods of inactivity and lower efficiency can lead to decreased output and revenues.

The results in Table 7 also reveal that Waste Management Disclosure (WMD) has a significant negative effect on the performance of listed Oils and Gas companies measured by Returns on Assets (ROA) (β_1= -2.039, p<0.05); but it has a significant positive effect on the performance of listed Oils and Gas companies measured by Earnings per Share (EPS) (β_2= 0.155, p>0.05) and Liquidity Ratio (LIQ) (β_3= 0.292, p<0.05). This result implies that a unit increase in WMD would lead to a 2.039 unit decrease in ROA; leading to 0.155 and 0.292 unit increases in EPS and LIQ respectively for the selected Oils and Gas companies in Nigeria. A negative effect of Waste Management Disclosure (WMD) on the financial performance of listed oil and gas companies

The findings presented in Table 7 indicate that Waste Management Disclosure (WMD) has a statistically significant adverse impact on the performance of listed Oils and Gas firms, as evaluated by Returns on Assets (ROA) (β_1 = -2.039, p<0.05). However, it has a statistically significant positive influence on Earnings per Share (EPS) and Liquidity Ratio (LIQ) (β_2= 0.155, p>0.05) and (β_3= 0.292, p<0.05) respectively. Based on the findings, it can be inferred that a one unit increase in WMD would result in a 2.039-unit reduction in ROA. In contrast, the Oils and Gas companies in Nigeria would experience increases of 0.155 units in EPS and 0.292 units in LIQ. An adverse impact of Waste Management Disclosure (WMD) on the financial performance of quoted oil and gas companies measured by Returns on Assets (ROA) could lead to increased operational costs, environmental liabilities, reputational damage, regulatory compliance costs, litigation risk, loss of social license to operate, and long-term sustainability concerns. Addressing waste management issues proactively is essential for mitigating these risks and improving financial performance, measured by ROA in the long run. This finding supports the conclusion from extant studies (Cincalova & Hedija, 2020; Chiamogu & Okoye, 2020; Ehioghiren & Eneh, 2019) that poor waste management practices can lead to higher operational costs for oil and gas companies. This can include expenses related to waste disposal, remediation of environmental damage, regulatory compliance, and fines for violations.

The results in Table 7 and Table 8 show that Community Development Disclosure (CDD) has a significant negative effect on the performance of listed Oils and Gas companies measured by Returns on Assets (ROA) (β_1 = -36.71, p<0.05), Earnings per Share (EPS) (β_2 = -0.0449, p>0.05) and Liquidity Ratio (LIQ) (β_3= -0.119, p<0.05). This result implies that a unit increase in CDD would lead to a 36.71 unit decrease in ROA; a 0.0449 unit decrease in EPS, and a 0.119 unit decrease in LIQ respectively for the selected Oils and Gas companies in Nigeria. The negative effect of CDD practices may lead to reputational damage for the company. If the company is perceived as neglecting its social responsibility or failing to address community needs, it can erode trust and credibility among stakeholders, including investors, customers, and regulators (Chiamogu & Okoye, 2020; Ehioghiren & Eneh, 2019). Also, poor community development practices can lead to increased operational costs for oil and gas companies. The finding is in line with previous studies (Osaloni & Oso, 2023; Amosun, *et al.*, 2022; Chiamogu & Okoye, 2020; Ehioghiren & Eneh, 2019) that negative CDD practices may expose the company to regulatory and legal risks. Failure to meet community expectations or comply with relevant regulations can result in fines, penalties, and legal liabilities for the company. These increased costs reduce profitability, lower EPS, and negatively impact liquidity ratios. This can result in decreased investor confidence, reduced market demand for the company's shares, and potential boycotts by customers, ultimately impacting ROA, EPS, and liquidity ratios.

Table 7: Regression Results on Effect of Environmental Accounting on Financial Performance of Nigerian Oil and Gas sector: Driscoll-Kraay Standard Error Method

	Return on Asset (ROA)			Earnings per Share (EPS)			Liquidity Ratio (LIQ)		
Variable	Fixed Effect	Random Effect	Driscoll-Kraay FE	Fixed Effect	Random Effect	Driscoll-Kraay FE	Fixed Effect	Random Effect	Driscoll-Kraay FE
EHSD	-85.77**	89.56**	-85.77**	3.166	3.178	3.166**	0.831**	0.779**	0.831***
	(37.73)	(37.19)	(14.3)	(3.214)	(3.159)	(1.060)	(0.335)	(0.336)	(0.247)
WMD	-2.039	-12.23	-2.039	0.155	-0.737	0.155	0.292	0.157	0.292***
	(54.15)	(33.97)	(12.78)	(4.614)	(4.196)	(0.220)	(0.481)	(0.406)	(0.0329)
CDD	-36.71*	-24.35	-36.71*	-0.0449	-0.123	-0.0449	-0.119	-0.166	-0.119***
	(18.74)	(17.03)	(17.97)	(1.597)	(1.554)	(1.814)	(0.166)	(0.163)	(0.0368)
Constant	117.0***	115.7***	117.0	1.585	1.702	1.585*	0.249	0.336	0.249
	(36.92)	(36.90)	(123.1)	(3.146)	(4.230)	(0.719)	(0.328)	(0.378)	(0.241)
R-squared	0.422			0.413			0.507		
Adj. R-squared	0.401			0.399			0.472		
F-Stat (Prob.)	3.55** (0.0181)			5.82** (0.0145)			44.08*** (0.0000)		
No of id	8	8	8	8	8	8	8	8	8
Obs.	88	88	88	88	88	88	88	88	88

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Regression Results on Effect of Environmental Accounting on Financial Performance of Nigerian Oil and Gas sector: Driscoll-Kraay Standard Error Method

Dependent Variable: PERF	Fixed Effect	Random Effect	Driscoll-Kraay FE
Ehsd	0.661*	-0.643*	0.661*
	(0.386)	(0.381)	(0.348)
Wmd	0.247	0.262	0.247***
	(0.554)	(0.508)	(0.0322)
Cdd	-0.0222	-0.0364	-0.0222
	(0.192)	(0.187)	(0.145)
Constant	0.637*	0.614	0.637**
	(0.378)	(0.516)	(0.283)
Observations	88	88	88
R-squared	0.392		
Adj. R-squared	0.359		
F-Stat (Prob.)	37.03*** (0.000)		
Number of id	8	8	8

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

4.4 Discussion of Theoretical and Empirical Findings

Theoretically, the study was anchored on signaling theory and stakeholder's theory. The findings provide an insight into the connection between environmental accounting and performance of listed oil and gas companies in Nigeria. The findings are in line with the theoretical framework, as signaling theory focuses on how firms and organizations use heterogeneous boards to communicate observance of social values to a variety of organizational investors as information influences stakeholders' decision-making procedures, who make decisions based on public information that is made available or private information that is only available to a select few. The study validates the hypothesis of the signaling theory since it states that organizations use the information about the impact of their activities on the environment, to evaluate their financial performance. While the stakeholder's theory focuses on successfully managers accommodate the interests of all stakeholders who are directly or indirectly impacted by corporate operations. Since businesses cannot function or survive without their immediate surrounding or society, all stakeholders' interests will be taken into account while making strategic decisions. Companies must enhance shareholders wealth while also taking their demands into account when making choices. Since the success or failure of any business in terms of performance depends on the interested parties, environmental problems and their effects affect all stakeholders.

On the empirical side, findings indicates that a negative effect of EHSD on financial performance can harm the reputation of oil and gas companies, resulting in reduced trust and confidence among stakeholders such as investors, customers, and the public (Adamkaite, et al. 2022; Eze, 2021). Moreover, positive EPS impacts suggest that the company is producing increased earnings in comparison to the outstanding shares. This increases shareholder value by distributing earnings across a reduced number of shares, resulting in increased dividends per share or possible share price growth. According to Makhdoom, et al. (2023), a positive EHSD reflects the company's prioritization of its employees' well-being, thereby boosting investors' trust. Investors may view these companies as well-managed and socially responsible, thus impacting their investment choices in a good way. This may result in decreased operational interruptions, reduced insurance expenses, and potentially decreased legal responsibilities, all of which can enhance financial performance and increase EPS. Also, a positive effect of EHSD on the liquidity ratio indicates that the oil and gas companies possess enough current assets to meet their short-term obligations. The findings conform to Makhdoom, et al. (2023), Amosun, et al. (2022), and Chiamogu and Okoye (2020) by concluding that financial stability decreases the chances of insolvency or liquidity issues, which can harm the companies' operations and reputation. Higher liquidity ratios indicate the company's ability to readily fulfill its immediate financial responsibilities, including bill payments, debt repayments, and operational costs (Osaloni & Oso, 2023; Amosun, et al., 2022). This boosts the company's financial adaptability and decreases the chances of default, perhaps resulting in enhanced creditworthiness and reduced borrowing expenses. High liquidity ratios suggest that the company has surplus funds that can be used for investing in growth possibilities like capital expenditures, acquisitions, or research and development. This allows the corporation to undertake strategic initiatives that can improve long-term profitability and competitiveness in the oil and gas industry.

Higher costs reduce profitability and negatively impact ROA. Inadequate waste management may result in environmental liabilities for the company, such as cleanup costs, legal fees, and penalties for environmental violations (Cincalova & Hedija, 2020). As revealed by the positive effects of WMD on EPS and liquidity ratio, effective waste management practices can lead to cost savings for oil and gas companies. By minimizing waste generation, optimizing resource utilization, and implementing efficient waste disposal methods, companies can reduce operating expenses and improve profitability (Makhdoom, et al., 2023; Owolabi, et al., 2022; Eze, 2021). Higher earnings translate to an increased EPS, while improved liquidity ratios indicate better cash management and resource allocation, further enhancing financial performance. Also, transparent disclosure of waste management efforts demonstrates the companies' commitment to sustainability and regulatory compliance, which can enhance investor confidence and attract socially responsible investors. Increased investor interest and support can contribute to higher EPS and liquidity ratios as demand for the company's shares grows (Osaloni & Oso, 2023; Pham, et al., 2021). According to Adamkaite, et al. (2022), by complying with waste management regulations and implementing best practices, companies can mitigate the risk of fines, penalties, and legal liabilities associated with non-compliance. Thus, reduced risk exposure improves financial stability, lowers the cost of capital, and enhances EPS and liquidity ratios.

5. Conclusion and Policy Recommendations

The incorporation of environmental accounting metrics into the annual reports of companies has been the subject of numerous research studies, as it is widely believed that such information can enhance the financial performance of such organisations. The study examined the impact of environmental accounting practices on the financial performance of eight (8) listed oil and gas firms in Nigeria for the period of 2011 to 2022. As measured by return on assets (ROA), the initial hypothesis investigated the impact of environmental accounting on the financial performance of listed oil and gas companies in Nigeria. At the 5% and 10% levels of significance, employee health and safety disclosure (EHSD) and community development disclosure (CDD) were found to have statistically significant adverse effects on return on assets (ROA), respectively. On the other hand, waste management disclosure (WMD) had a negative but insignificant impact on ROA for listed oil and gas companies. The impact of environmental accounting on the financial performance of listed oil and gas corporations in Nigeria, as measured by earnings per share (EPS), was the subject of the second hypothesis. The findings indicate that Earnings per Share (EPS) is positively impacted by EHSD and WMD, while the impact of WMD is statistically insignificant. Additionally, it was disclosed that the impact of CDD on the Earnings per Share (EPS) of listed oil and gas companies in Nigeria is marginally negative. The third hypothesis examined the impact of environmental accounting on the liquidity ratio (LIQ), a metric used to represent the financial performance of listed oil and gas companies in Nigeria. The findings

indicate that EHSD and WMD have a statistically significant positive impact on the liquidity ratio of listed oil and gas companies in Nigeria. Conversely, CDD exhibits a statistically significant negative influence on the liquidity ratio.

The results show that, overall, listed oil and gas businesses in Nigeria see considerable improvements in their financial performance due to EHSD and WMD, but CDD causes these companies' financial performance to suffer. According to the study's findings, environmental accounting can help Nigerian oil and gas businesses improve their financial performance in a number of ways. The study's conclusions exhort governments and corporate players operating in Nigeria's oil and gas industry to apply the knowledge gained to create more sensible rules and incentives that support environmental stewardship. In order to enhance the financial performance of Nigeria's oil and gas industry, significant insights into the possible advantages and difficulties of implementing environmental accounting standards were also given. These insights would ultimately have an impact on the decision-making processes of corporate stakeholders.

First, the negative effect of environmental accounting disclosures (EHSD, WMD, and CDD) can significantly influence the company's financial performance, potentially leading to stakeholders withdrawing investment, boycotting products, or taking other actions that could impact profitability. An adverse EHSD can impact employee morale and satisfaction, resulting in elevated turnover rates and higher recruitment and training expenses. High employee turnover can cause disruptions in operations and reduce efficiency, ultimately affecting the company's financial performance and ROA. The negative effect of EHSD on financial performance can result in higher operational costs, reduced productivity, harm to reputation, increased regulatory compliance expenses, heightened litigation risks, and worries regarding long-term sustainability. The study recommends adherence to health and safety regulations that typically involve a substantial investment in training, equipment, and infrastructure, which may impact profitability and ROA positively.

Second, the desirable impact of environmental accounting disclosures, especially EHSD and WMD on earnings per share implies that a workplace that is safe and conducive to good health at work can enhance employee morale, productivity, and retention rates. When employees feel appreciated and secure, they are more inclined to be motivated and involved in their work, resulting in enhanced efficiency and effectiveness, which can subsequently have a beneficial effect on the company's profitability and earnings per share (EPS). The study thus recommends an implementation of efficient health and safety as well as waste management protocols which lead to financial savings for the firm. This encompasses lowered healthcare expenses, fewer rates of absenteeism, and reduced costs associated with occupational injuries and accidents. The cost savings can directly lead to increased earnings and, subsequently, increased earnings per share (EPS). Positive EHSD and WMD practices lead to increased investor confidence, decreased operational risks, enhanced employee productivity, cost savings, improved reputation, and regulatory compliance. These ultimately result in higher earnings per share (EPS) and overall business prosperity.

Moreover, the oil and gas sector are susceptible to variations in commodity prices, regulatory modifications, geopolitical uncertainties, and other external influences that might affect cash flows. The positive impact of environmental accounting disclosures, especially EHSD and WMD on liquidity ratio ensures sufficient liquidity which enables oil and gas companies to efficiently handle unforeseen obstacles or economic downturns. During a crisis, having enough cash and assets that can be quickly converted into cash can assist reduce risks, keep companies running, and take advantage of opportunities that may surface while competitors face difficulties. High liquidity ratios indicate strong financial health and prudent management practices, which can enhance stakeholder trust. Stakeholders are more inclined to trust and back organizations with robust liquidity situations, potentially resulting in heightened investment, advantageous lending terms, and enhanced commercial partnerships. Thus, we recommended that businesses, firms, and companies particularly those whose operations have an impact on the environment, publish their financial commitments to the improvement of the environment. Making environmental accounting disclosure necessary for firms and businesses, especially oil and gas companies is important since they are actively involved in the exploration of natural resources and the destruction of the environment. Policymakers and accounting organizations should create a framework to assist businesses account for the effects of their operations on society and the environment. Governments should put systems in place to make sure businesses strictly abide by all environmental rules.

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Part Three
Educational Management

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Cognitive Load and Test-Taking Skills as Correlates of Academic Performance in Mathematics of Joint Universities Preliminary Examinations Board Science Students, University of Benin

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Abstract. This study was conducted to determine whether cognitive load and test-taking skills are correlates of academic performance in mathematics of Joint Universities Preliminary Examinations Board (JUPEB) Science students, University of Benin, Benin City. The study was hinged on Cognitive Load Theory (CLT) and Cognitive Social Learning Theory (CSLT). CLT was developed by Sweller (1988) while CSLT was developed by Bandura (1977, 1986). To guide this study, three research questions were raised which were also hypothesized and tested at 0.05 significant level. Survey design with correlational approach was adopted for the study. The population of the study consists of 82 JUPEB science students. The sample of the study was also 82 students as the population was small. Data was collected using an adapted instrument which was modified and titled "JUPEB Students' Cognitive Load and Test-taking Skills Questionnaire (JSCLTSQ)". The instrument was content-validated. Three experts from the Department of Educational Evaluation and Counselling Psychology made some corrections and suggestions which were incorporated into the final copy and thereafter certified valid for use for the study. The instrument was trial-tested on 20 students and the reliability was determined using the Cronbach Alpha statistics which yielded coefficients of 0.85 and 0.81 for the two subscales respectively. The three (3) hypotheses were tested using the Pearson Product Moment Correction Coefficient statistics. The findings revealed that cognitive load has a low inverse relationship with academic performance in mathematics while test-taking skills has a positive relationship with academic performance in mathematics. Cognitive load and test-taking skills are jointly correlated with academic performance in mathematics. Based on the findings, some recommendations were made. One of such recommendations is that tutors of JUPEB University of Benin need constant attendance in seminars and workshops funded by the government and the school management on various cognitive load issues and effective test-taking strategies.

Keywords: Cognitive load, Test Taking Skills, Academic Performance

1. Introduction

Academic performance refers to the degree to which students, instructors, or institutions have met their short or long-term educational objectives. It assesses a student's proficiency across many academic topics (Briones et al, 2021). Good academic achievement among students throughout every stages of school is critical in the modern educational environment. Students' good performance in mathematics, for example, indicates a promising future in education, particularly in the sciences and engineering. Mathematics is regarded as one of the core disciplines in the educational curriculum. It constitutes the basis of scientific and technical knowledge, which contributes considerably to the socioeconomic advancement and growth of any country. However, poor academic performance in mathematics has been witnessed at different levels of education among students. This may not be unconnected with the perception, attitude and the approach that both teachers and learners adopt concerning the subject. Academic performance nowadays tends to be considered as an indication of a student's performance in response to school-based instructions and information acquired throughout the course of education (Igwe & Orluwene, 2019). Academic performance is the manifestation of information obtained by a learner throughout the course of schooling. This concept implies that academic achievement is a measure of pupils' comprehension of instructions. Students' academic achievement is measured using a variety of exams according to the rationale whereby the scores from the tests are utilised.

In today's world, mathematics is essential in many activities that we perform from day to day: when studying, working and while engaged in other daily activities. Mathematics is one of the core subjects offered at all levels of education. Irrespective of students' chosen area of specialization, mathematics is compulsory for students while enrolling into the Senior School Certificate Examination. Depending on students' chosen course of study, some students may not need much mathematics at the higher educational level. Nevertheless, it constitutes one of the conditions for entrance to a higher educational institution. Mathematics is a discipline that spans all human pursuits. Recognising the significance of math, the Nigerian government has proved its dedication to imparting knowledge about the subject, notably through the National Mathematics Centre's many developmental projects. Throughout the course of its history, NMC has implemented several Mathematics Improvement Projects (MIP) in an effort to enhance the instruction and learning of mathematics at both the primary and secondary education levels (Omeonu, 2014). These efforts involve organising teacher training/workshops, distributing educational resources to many different schools, and producing mathematics games; The national reward plan for learners in mathematics as well as teachers/institutions that have achieved a significant degree of effectiveness in mathematics education and instruction at all ranks.

Despite the efforts of the government and mathematics educators to provide quality mathematics education, educational institutions continue to face challenges that could undermine the quality of mathematics education provides (Omeonu, 2014). Effectiveness in the teaching-learning process is to a large extent determined by cognitive load factors as well as test-taking skills (Houichi & Sarnou, 2020). To increase students' academic achievement, instructors must grasp the research basis that supports learners practicing through design of lessons ideas, especially those connected to cognition. Mathematics being a key subject at different levels of education, is usually part of the subject combinations taken by some students who sit for the Joint Universities Preliminary Examinations Board (JUPEB) yearly.

The Joint Universities Preliminary Examination Board (JUPEB) is a nationwide examinations organisation that was recognised by the Federal Government of Nigeria in 2013. It was officially founded in 2014 by a consortium of ten (10) member universities, led by the University of Lagos. JUPEB was established to standardise the admission procedure for partner universities through their individual preparatory courses. To be qualified to take the test that leads to the award of JUPEB's Direct Entry Certificates, applicants must have completed a rigorous programme of academic study related to their intended university subject. Each prospective student has to apply, take tests, along with satisfying the Board in three disciplines and a general studies course related to the course of study suggested at any of the institutions. Each topic is often divided into four courses, two of which the candidate must complete each semester. After completing the curriculum, students get certificates indicating their level of achievement, typically bear letter grades A, B, C, D, E, or F in each of the aforementioned subjects including the General Studies Paper.

Over the last decade, there seems to be a considerable interest in the areas of intellect, test-taking abilities, and schooling. Cognitive science appears to have advanced our understanding of the mental procedures that occur while comprehending instructional content to the point where it is clear that conventional teaching and learning approaches are no longer adequate. New teaching approaches based on the concept of cognitive load and abilities to take tests have become available (Chandler & Sweller, 1991, quoted in Houichi & Sarnou, 2020). Test is a collection of questions to which the respondents are expected to answer (Afemikhe, 2014). The collection of questions could be seen as a task which is presented to a person calling for a kind of behaviour; the performance indicates whether the individual possesses the behaviour called for by the task. Tests are meant to assess a sample's quality, aptitude, skill, or knowledge in comparison to a predetermined expected, so which is typically regarded appropriate or not. Not all examinations ask questions, but the subject matter of the test suggests the presence of a series of questions. Test-taking skills are the cognitive talents needed to manage every testing setting appropriately and know what to do throughout exams. It is pertinent to note that many crucial decisions that could have effect on the life of individuals are based on specific tests. The place tests occupy in the future of students necessitates that it be given serious attention that it rightly deserves in the teaching-learning process.

Cognitive load refers to the quantity of data that the brain's working memory can handle at once. In the discipline of cognitive psychology, cognitive load is defined as the quantity of working memory processes utilised. According to Rao (2021), the cognitive workload is a type of intellectual power required to assimilate learning information in a certain environment. Working memory must be considered short-term and finite, but memory that is long-lasting can be viewed as endless. The goal is supposed to be to shift knowledge to long-term mental storage since once a student is introduced to new material, they may call on their existing

expertise so the cognitive burden is lessened. Nevertheless, if the topic information is insufficient, the learner is unable to rely on long-term memory, and the working memory gets overloaded, resulting in functioning memory failures. According to Osa-Edoh (2016), memory used for computation possesses a very restricted capacity as well as can only handle around seven objects at once. Certain learners perform badly on tests due to a lack of abilities to take tests or the usage of ineffective ones. These abilities have a direct and indirect impact on pupils' results. These tactics directly assist students improve their test scores by optimising their time, effort, and exam circumstances. Indirectly, utilising suitable test-taking tactics influences other related but essential issues, such as lowering test anxiety and enhancing students' attitudes towards tests. Testing skills assist students in applying their learning environment information to real-world situations. Students who have learned test-taking methods or skills will improve their testing proficiency and, consequently, their academic success. According to studies, kids who use test-taking tactics have (1) better attitudes towards tests, (2) lower levels of test anxiety, and (3) higher academic performance. Even those learners who are conversant with the material may perform badly on examinations due to an absence of test-taking abilities (Sweetnam, 2003).

Examinees can effectively cope with test anxiety by improving their test-taking abilities and avoiding cognitive overload. Test anxiety may be defined as a state of tension and anxiety that interferes with one's capacity to convey what one understands in a test setting. Anxiety about tests is a pretty prevalent issue among students, particularly at the higher educational level. Although an appropriate amount of test anxiety can help stimulate students to perform better on tests, a severe case of test nervousness can interfere with the manner in which students excel, negatively affecting concentration, idea and thought organisation, question comprehension, and keyword retrieval. Highly nervous pupils typically have poor test-taking skills. They, for instance, might devote a greater amount of time on irrelevant ideas than on duties, and they typically have bad study habits. Furthermore, they may struggle with writing assignments along with take-home assessments, as well as multiple-choice verbal things. Tests are often meant to examine pupils' understanding of certain topic or items. When other variables influence pupils' how they perform, scores from tests are no longer reliable indicators of their knowledge or aptitude levels. Test-taking practices can increase the general reliability of test scores, ensuring that they correctly represent what students actually know.

According to Alshammari et al. (2017), organisational factors that impact the academic achievement of learners include insufficient libraries, insufficient research facilities, an absence of university lodgings, curriculum-related variables, an insufficient number of lecturers, and university-enforced academic guidelines. Universities in Africa, particularly in Nigeria, confront an imminent danger of anomie. This can be evident in the presence or lack of norms. To be more exact, Nigerian colleges are experiencing a core values crisis. The degree of psychological strain has a significant impact on student acquisition of knowledge and academic achievement. Students' test-taking abilities are seen as a critical aspect that might influence academic success, particularly in quantitative courses such as mathematics (Igwe & Orluwene, 2019). The value of students' suitable test-taking strategies is clear because it minimises anxiety during exams and leads to higher exam scores (Dodeen et al., 2014). Sweetnam (2003), as referenced in Dodeen (2015), said that learning test-taking methods or skills will improve students' testing proficiency thus contributing to their academic success. Studies show that pupils who understand taking assessments strategies: (i) have improved studies towards test (ii) have lower levels of test anxiety (iii) achieve better in academic-related tasks. Even learners who are conversant with the material may perform badly on tests due to their shortage of test-taking abilities (Sweetnam, 2003). According to Almalki (2023), competence plays an important role in the deployment of certain test-wiseness tactics. In addition, their findings indicated that sex had no significant impact on the choosing of test-wiseness techniques. Igwe and Orluwene (2019) looked at test-taking techniques as determinants of pupils' maths success in Rivers State secondary schools. The results of this research revealed that test-taking tactics had a strong predictive effect on students' academic outcomes in mathematics.

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1.1 Statement of the Problem

Mathematics is an important topic, especially for engineering and scientific students. Nevertheless, many students see it as a difficult nut to crack. This might imply that many of the pupils lack the necessary abilities for taking exams while writing mathematics assessments or examinations. So numerous learners believe that no matter how hard they work to prepare for mathematics exams, they will never pass. In the words of Eklof (2010), achievement on exams is dependent not just on understanding of the topics or subject matter, but also on the development of certain skills, among them test-taking abilities. Test-taking abilities are those that are concerned with how they respond and react when attempting a test rather than the topic

content. As a result, it can assist to lessen test anxiety and/or dread, allowing pupils to write the exam with a calm mind and therefore enhance their performance. To that aim, regardless of whether all of the criteria influencing students' test performance are positive, it is still required to have particular preparation in the ways of answering to questions from the exam and to employ relevant skills while on the examination itself in order to be productive. Bond and Herman (2013), as reported in Bicak (2013), claimed that ability, a successful outcome, and Grade Point Average (GPA) are all characteristics that overlap owing to distinct test-taking abilities.

To improve exam efficiency, the primary focus should be on abilities to take tests rather than testing experience. Meeaad et al. (2022) and Houichi and Sarnou (2020) found that metacognitive features of test-taking experience, such as selecting skills, time frame, difficulty prediction, including monitoring, are critical to exam achievement. The same may be stated for cognitive burden. Where irrelevant distractions, such as intellectual overload, can be prevented, the ramifications for exam achievement can be extremely striking. In fact, a student's academic achievement in Mathematics may be influenced by his or her test-taking abilities along with the lack of cognitive overabundance rather than just by mastering the subject content.

The literature reviewed found a gap in that most previous research addressed characteristics such as mental workload as well as test-taking abilities separately as potential predictors of students' academic achievement in mathematics. As a result, there is a need to do research on the combined impact of cognitive load along with test-taking abilities on JUPEB students' academic achievement in mathematics in Nigerian higher education institutions. It is also worth noting that there is limited study on mental workload and test-taking abilities as predictors of academic achievement in mathematics among Joint Universities Preliminary Examination Board science students at the University of Benin. It is based on the above premise that the researcher was motivated to carry out a study on Cognitive Load and Test-taking Skills as Correlate of Academic Performance in Mathematics of JUPEB Science Students, University of Benin.

1.2 Research Questions

To guide the study, the following research questions were raised:

- Is there a relationship between cognitive load and academic performance in mathematics of JUPEB science students, University of Benin?
- Is there a relationship between test-taking skills and academic performance in Mathematics of JUPEB science students, University of Benin?
- Do cognitive load and test-taking skills jointly correlate academic performance in mathematics of JUPEB science students, University of Benin?

1.3 Hypotheses

The following hypotheses were formulated and will be tested at 0.05 level of significance:

- There is no significant relationship between cognitive load and academic performance in mathematics of JUPEB science students, University of Benin.
- There is no significant relationship between test-taking skills and academic performance in mathematics of JUPEB science students, University of Benin.Cognitive load and test-taking skills do not significantly correlate academic performance in mathematics of JUPEB science students, University of Benin.

1.4 Research Methodology

Design for the study is survey using correlational approach. The adoption of this design was to enable the researchers collect and analyze quantifiable information that can be used to make generalization from the sampled population to the entire population of the study. Thus, information was collected from 2022/2023 JUPEB students and analyzed and the findings were generalized to the entire population of JUPEB science mathematics students of University of Benin. The population of this study consists of all University of Benin JUPEB science students for the 2022/2023 examination year totaling 82 students. The sample of this study consists of 82 JUPEB science students in 2022/2023 session, University of Benin. The sampling technique used was the census as the population size is small. In the census sampling, all the 82 JUPEB science students were selected as part of the sample. The instrument that was used for data collection is the questionnaire titled: "JUPEB Students' Cognitive Load and Test-taking Skills Questionnaire (JSCLATSQ)". The questionnaire is subdivided into two (2) sections. Section A elicits Likert scale responses on Cognitive Load, A four-point Likert scale was used, and scoring ranges from Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1. Session B elicits Likert scale responses on Test-taking skills. A four-point Likert scale was used, and scoring ranges from Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1. Sections A and B consist of sixteen (16) items each. The questionnaire consists

of a total of thirty-two (32) items. The items in section A of the instrument were adapted from Houichi and Sarnou (2020) Cognitive Load Scale while the items in section B were adapted from Almalki (2019) Test-Taking Scale. The instruments were validated by 3 experts. To determine the reliability of the instruments, the researchers administered twenty (20) copies of the instruments to 2022/2023 JUPEB students in another University with the same characteristics but not part of the sample. The data collected were analyzed using Cronbach's Alpha statistical method to estimate the internal consistency of the instruments. The values 0.85, and 0.81 were obtained as the reliability coefficients for Cognitive Load and Test-taking Skills sub-scales respectively. The high reliability coefficients obtained indicate that the instrument is reliable and fit for use for the study. The final instruments were administered to the respondents by the researchers. Hypotheses 1, 2 and 3 were tested using Pearson Product Moment Correlation Coefficient (PPMCC) statistics. All hypotheses were tested at 0.05 level of significance.

2. Presentation of Results and Discussion of Findings

Hypothesis 1: There is no significant relationship between cognitive load and academic performance in mathematics of JUPEB science students, University of Benin.

Table 1: Pearson Correlation Showing Relationship between Cognitive Load and Academic Performance in Mathematics of JUPEB Science Students

Variables	N	Mean	Std.	df Dev.	r-Cal	Alpha Value	Sig. (2-tailed	Decision
Cognitive Load	82	48.55	9.70	80	-0.11	0.05	0.346	Not Significant
Academic Performance in Mathematics	82	23.95	12.62					

P < 0.05

Table 1 has shown an inverse association involving cognitive load and academic achievement in mathematics among JUPEB Science Students at the University of Benin in Benin City. The value of the coefficient of correlation (r) was -0.11, indicating a minimal negative link between cognitive load and academic performance of JUPEB students in mathematics. It returned a p-value of 0.346, meaning it is more than the alpha value of 0.05. As a result, the finding is not statistically significant. The null hypothesis was so preserved. This means that there is no significant link between mental workload and academic achievement in mathematics among JUPEB Science students at the University of Benin in Benin City.

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Hypothesis 2: There is no significant relationship between test-taking skills and academic performance in mathematics of JUPEB science students, University of Benin.

Table 2: Pearson Correlation Showing Relationship between Test-taking Skills and Academic Performance in Mathematics of JUPEB Science Students

Variables	N	Mean	Std.	df Dev.	r-Cal	Alpha Value	Sig. (2-tailed	Decision
Cognitive Load	82	21.62	5.77	80	0.70	0.05	0.000	Significant
Academic Performance in Mathematics	82	23.95	12.62					

P < 0.05

Table 2 shows a link between test-taking skills overall successful academic achievement in mathematics among JUPEB Science Students at the University of Benin in Benin City. The coefficient of correlation (r) found was 0.70, indicating a strong positive association between test-taking abilities and academic success in mathematics among JUPEB science students. It returned a P-value of 0.000, which is smaller than the alpha value of 0.05. Consequently, the outcome is noteworthy. The null hypothesis was thus rejected in favour of the alternative. This shows that there is a substantial association connecting test-taking abilities as well as academic success in mathematics among JUPEB students studying science at the University of Benin in Benin City.

Hypothesis 3: Cognitive load and Test-taking Skills do not significantly correlate Academic Performance in Mathematics of JUPEB Science Students, University of Benin.

Table 3: Pearson Multiple Correlation Showing Relationship between Cognitive Load, Test-taking Skills and Academic Performance in Mathematics of JUPEB Science Students

Variables	N	Mean	Std. Dev.	df	r-Cal	Alpha	Sig. (2-tailed) Value	Decision
Cognitive Load/Test-Taking Skills	82	23.948	8.79	80	0.70	0.05	0.000	Significant
Academic Performance in Mathematics	82	23.951	12.62					

$P < 0.05$

Table 3 shows a link between Cognitive Load, Test-taking Skills, and Academic Performance in Mathematics among JUPEB Science Students at the University of Benin in Benin City. The correlation value, r, was 0.70, indicating a strong positive association between cognitive workload, test-taking competencies, and students' academic achievement in mathematics. It returned a P-value of 0.000, which is smaller than the alpha value of 0.05. Thus, the outcome is noteworthy. The null hypothesis was thus rejected. This shows that cognitive load and test-taking abilities have a substantial correlation with learning outcomes in mathematics among JUPEB Science students at the University of Benin in Benin City.

3. Discussion of Findings

The findings showed that there is an inverse link between cognitive workload and academic achievement among JUPEB science students at the University of Benin. This association is not noteworthy. This suggests that cognitive stress may affect academic performance in mathematics, but not considerably. The findings agree with Houichi and Sarnou (2020) and Chandler and Sweller (1991) who reported that the level of cognitive load has effect on students' learning and academic performance. Sweller et al. (1998) also stressed that split attention occurs commonly in instructional contexts and has a negative effect on learning and students' academic achievement. He emphasized that cognitive overload should be eliminated wherever possible. According to Alshammari et al. (2017), institutional factors that affect the educational achievement of learners include not sufficient libraries, insufficient research facilities, a lack of university lodging, curriculum-related variables, an insufficient number of lecturers, and university-enforced educational policies. It is possible that JUPEB science students, University of Benin are occupied with how to resolve the challenges of inadequate libraries, lack of accommodation, inadequate number of lecturers, curriculum related factors amongst others and are therefore distracted from their studies. Hence their low academic performance in Mathematics.

The results of this study also demonstrate a favourable link between test-taking abilities and academic success in mathematics among JUPEB science students at the University of Benin in Benin City. The association is substantial. This implies that test-taking abilities may impact academic success in mathematics. This conclusion is consistent with Slim et al. (2013), who found that students' success in low-stakes examinations was reliant on test-taking effort factors such as the total quantity of items, the proportion of tries to solve, along with the amount of time dedicated to completing an item. It also aligns with Dodeen et al. (2014), who found a favourable relationship between students' proficiency in taking tests especially their enthusiasm for studying mathematics, beliefs regarding mathematics, and their mindsets towards testing. Sweetnam (2003) noted that even students who are conversant with the subject matter may perform badly on tests due to a lack of test-taking skills.

The findings also indicate a substantial link between cognitive load, test-taking abilities (jointly), and academic success in mathematics. The findings are consistent with Igwe and Orluwene's (2019) conclusion that test-taking techniques and cognitive load concurrently influence students' academic achievement. In context with this, Hattie (2009) stated that the instructor decides to establish the learning and achievement criteria and makes them transparent to the students, models them, evaluates if they understand what they have been advised by inspecting for comprehension, as well as recounting them what they ought to have had been advised by weaving it in entirety with closure.

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4. Conclusion

The research came to the conclusion that cognitive load possesses a negative linear connection with scholastic achievement in mathematics, the ability to take tests has a beneficial linear connection with educational achievement in mathematics, as well as intellectual load along with test-taking competencies have a significant positive connection with academic accomplishment in Mathematics, making them in the best predictors for educational achievement in mathematics. Reducing cognitive load while improving good aptitude for taking tests will enhance pupils' academic achievement.

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5. Recommendations

On the basis of the findings of the study, the following recommendations were made that:

- Deliberate effort should be made by the school management of JUPEB to ensure that appropriate level of cognitive load is maintained during instruction.
- Concerted effort should be made to teach test-taking skills to JUPEB science students in order to enhance their performance in mathematics.
- Tutors of JUPEB University of Benin need constant attendance in seminars and workshops funded by the government and the school management on various cognitive load issues and effective test-taking strategies.

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Emotional Intelligence as a Strategy for Effective Administration of Schools in a Culturally Pluralist Classroom

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Abstract. This comprehensive essay explores the integration of emotional intelligence into school administration as a transformative approach with profound implications for culturally pluralist classrooms. It begins by defining emotional intelligence and tracing its historical evolution, addressing debates surrounding its measurement and assessment. The relevance of emotional intelligence in culturally pluralist classrooms is discussed, highlighting the challenges and opportunities of cultural diversity. The pivotal role of emotional intelligence in school administration is analyzed, showcasing how administrators with high emotional intelligence shape school climates, foster student engagement, and enhance academic achievement. Specific emotional intelligence skills and competencies, including self-awareness, self-regulation, empathy, and social skills, are explored in depth. Strategies for developing emotional intelligence in administrators are provided, along with insights into integration into leadership development programs and curricula. Acknowledgment of potential challenges and critiques, along with evidence-based counterarguments, is included. Ongoing debates within academia regarding emotional intelligence in leadership are recognized. The implications of emotional intelligence-based administration for culturally pluralist classrooms are discussed, emphasizing its contribution to inclusive and equitable environments, long-term benefits for students, and broader societal impact.

Keywords: Emotional Intelligence, School Administration, Culturally Pluralist Classrooms, Leadership, Diversity, Inclusion

1. Introduction

Imagine a lively metropolitan school in Nigeria with a classroom full of kids who represent the complex tapestry of Nigerian cultures and languages by coming from different ethnic backgrounds. The difficulties and possibilities of cultural plurality are highlighted in this situation. In the classroom, kids navigate the intricate web of cultural identity as teachers work to close cultural gaps and address special needs. This striking image captures the complex and dynamic environment of culturally pluralist classrooms in Nigeria. Institutions of higher learning in Nigeria have seen a significant transition in recent years. With more than 250 ethnic groups and languages, the country exhibits a tremendous diversity that is reflected in its classrooms. Schools in Nigeria now reflect a variety of cultural backgrounds as a result of increased migration and urbanization as well as the demand for high-quality instruction (Ononye et al., 2022). Understanding how efficient administration may take use of this diversity for advantageous outcomes is crucial as cultural pluralism becomes a vital component of the educational experience in Nigeria. The importance of efficient school administration in Nigeria is elevated in this cultural kaleidoscope. Nigerian school administrators are not simply managers; they also serve as cultural stewards, charged with fostering learning settings where each Nigerian student, regardless of ancestry or cultural background, can flourish. They are essential in influencing the educational environment, promoting diversity, and making sure that equity is at the heart of the Nigerian educational system (Okwuduba et al., 2021).

This paper explores the critical function of emotional intelligence (EI) as a tactical tool for improving school management in Nigeria's culturally diverse classrooms. It argues that building inclusive and equitable learning environments necessitates the development of emotional intelligence among school administrators in Nigeria. The foundations of emotional intelligence, the

nuances of culturally pluralist classrooms in Nigeria, the relationship between emotional intelligence and effective administration in the Nigerian context, techniques for developing emotional intelligence in Nigerian school leaders, actual case studies from Nigerian schools, critiques and challenges that are unique to Nigeria, and the larger implications of this argument will all be examined to support this claim. This introduction, which is customized for the Nigerian context, establishes the scene for your essay by capturing the reader's attention, giving background information, and unambiguously stating your thesis and the essay's structure. In the context of cultural diversity, it emphasizes the value of emotional intelligence in Nigerian school management.

2. Understanding Emotional Intelligence

Emotional intelligence (EI) is a dynamic and multidimensional concept that goes beyond simple emotional awareness. It is the profound capacity to move deftly and wisely through the complex maze of human emotions. This complexity can be reduced to four essential elements:

Self-awareness: Similar to putting a mirror up to one's own emotional environment, this fundamental element of EI. It requires the ability to appropriately appraise one's emotional states, as well as their strengths, weaknesses, and the underlying causes that kick them off. An in-depth understanding of one's emotional reactions is fostered by self-awareness, which enables people to grasp how emotions affect their thoughts, decisions, and behaviors. It serves as the foundation for emotional intelligence (Fernández-Pérez & Martín-Rojas, 2022).

Self-regulation: Emotional intelligence is characterized by emotional self-control, also known as self-regulation. It is the ability to calmly and gracefully navigate one's emotional ship through the turbulent waters of life's obstacles. The amazing capacity to control, modify, and efficiently channel one's emotional reactions is exhibited by those who have this skill. Even in the face of adversity, they maintain emotional stability and resilience rather than giving in to irrational emotional outbursts (Kösterelioğlu, 2021).

Empathy: The pinnacle of emotional intelligence, empathy, is a complex interplay of the mind's cognitive and emotional faculties. It involves the mental ability—often referred to as cognitive empathy—to comprehend the feelings and viewpoints of others. Emotional empathy, on the other hand, is the capacity to actually feel and experience another person's emotions. By bridging gaps in understanding, empathy promotes close relationships, empathic listening, and compassionate reactions. Empathy is a crucial tool for developing understanding and unity among varied student populations in classrooms that value cultural diversity (Decety et al., 2014).

Social skills: A set of honed social abilities that allow people to deftly negotiate the complex web of interpersonal interactions sit at the core of emotional intelligence. These abilities include adaptation, teamwork, effective communication, and conflict resolution. People with high EI are excellent at establishing and maintaining healthy relationships, handling problems in a constructive way, and changing their behavior to fit different social situations. Social abilities play a crucial role in educational leadership in order to foster an environment where all students feel appreciated and heard (Mariyadas & Saravanakumar, 2023).

It is beyond dispute that emotional intelligence has a significant impact on both personal and professional performance. Numerous studies have shown that people with strong emotional intelligence typically have better overall wellbeing, stronger interpersonal connections, and higher work performance. High EI school administrators are better able to encourage and support inclusive, equitable, and culturally sensitive learning settings in the educational setting. It is beyond dispute that emotional intelligence has a significant impact on both personal and professional performance. Numerous studies have shown that people with strong emotional intelligence typically have better overall wellbeing, stronger interpersonal connections, and higher work performance. High EI school administrators are better able to encourage and support inclusive, equitable, and culturally sensitive learning settings in the educational setting (Senthil et al., 2020; Pail et al., 2019; Rode et al., 2017).

The concept of emotional intelligence has its origins in the early psychological research that first established the centrality of emotions in human conduct. Charles Darwin and William James set the theoretical foundation for interpreting emotions as environmental adaptations (Pellitteri, 2022). These fundamental ideas helped to establish emotional intelligence as a psychological concept in its infancy. Daniel Goleman's pioneering work helped bring the modern idea of emotional intelligence to public attention. His model, which was first developed in the 1990s, significantly contributed to the idea that emotional intelligence is a key factor in both personal and professional success rather than just a minor part of human nature. Goleman's concept emphasized the importance of the four fundamental elements and clarified how they may be used in different spheres of life. This concept was well received by a broad audience, including educators and business executives, and made a substantial contribution to the incorporation of

emotional intelligence into society discourse, leadership, and education (Sánchez-Núñez et al., 2015).

The groundbreaking studies of Peter Salovey and John Mayer serve as the theoretical basis for emotional intelligence. Emotional intelligence (EI) is conceptualized as a collection of mental talents rather than merely as personality traits or social skills in their well-known approach, referred to as the ability model of emotional intelligence. According to this approach, emotional intelligence is the ability to effectively recognize, comprehend, and use emotions in order to promote thinking. It emphasizes the significance of emotional reasoning and integration while placing a heavy emphasis on the cognitive processes involved in emotional intelligence (Michelangelo, 2015).
Psychology professionals continue to passionately discuss how to test and assess emotional intelligence. The subjective nature and inherent biases of self-report measures, which have historically dominated the assessment landscape, are legitimate concerns raised by critics. These measurements depend on how emotionally capable people believe they are, which leaves possibility for deception and social desirability biases (Hersing, 2017).

Scholars and practitioners are looking into other approaches of assessing EI in response to these worries. Performance-based evaluations provide a more objective and behaviorally oriented approach by requiring individuals to demonstrate their emotional intelligence in real-life situations. Additionally, 360-degree feedback tests, which gather opinions from many angles, offer a thorough picture of a person's emotional intelligence (Hammerly et al., 2014).
Additionally, conversations are being had about the cultural and contextual elements that affect how emotional intelligence is expressed and perceived. There is an increasing need for culturally sensitive evaluation instruments that take into consideration people's varied origins and experiences because it is known that cultural norms and expectations can influence how people express and perceive their emotions (Glenn & Claman, 2019).

Despite these disagreements, one thing is certain: emotional intelligence is practically relevant to leadership, education, and societal dynamics. The development and use of emotional intelligence emerge as essential tools for promoting inclusivity, equity, and efficient administration as educators and administrators in Nigeria struggle with the difficulties and opportunities given by culturally pluralist classrooms (Masoumparast, 2016).

3. Cultural Pluralism in Classrooms

The idea of "cultural pluralism" goes beyond the simple cohabitation of various cultures in one location; it celebrates this diversity as a distinguishing quality of modern educational environments. Cultural plurality essentially recognizes and values the rich tapestry of cultures, languages, and traditions that students bring to the classroom (Schachner, 2019). Its relevance in today's educational landscape is profound, driven by two crucial factors:

Changing demographics and a Diverse Student Population Significant demographic changes have been observed at educational institutions all across the world, including Nigeria, in recent decades. Increased immigration, urbanization, and globalization are the main characteristics of these changes, which have resulted in classrooms that reflect the striking diversity of the society in which they exist. Nigeria is a prime example of this diversity, home to more than 250 different ethnic and linguistic groups. Cultural diversity is becoming a crucial prism through which educators and administrators must perceive their duties as students from different cultural backgrounds congregate in educational settings (Cliffe, 2018).

Benefits of Cultural Pluralism for Society The advantages of accepting ethnic diversity go far beyond the boundaries of the classroom. In today's society, promoting an environment where other cultures are not only accepted but also celebrated results in a number of positive social outcomes. It encourages mutual respect amongst people from various origins and strengthens social cohesion while lowering prejudice and discrimination. This inclusivity extends to academic settings, where students are given the knowledge and values required to succeed in a globally integrated society (Biswas & Alam, 2022).

Administrators and teachers must navigate the potential and challenges of working in multicultural classrooms. Addressing Cultural Stereotypes, Language Barriers, and Potential Conflicts Language variety is frequently highlighted by the diversity of cultures. Effective communication and academic achievement can be hampered by language difficulties, demanding creative methods of language learning and support (Alordiah et al., 2022). Additionally, biases and stereotypes based on culture may manifest, which could result in disagreements and misunderstandings amongst students as well as between students and teachers. It takes dedication to cultural awareness, anti-bias education, and conflict resolution techniques adapted to culturally varied environments to meet these problems (Torres et al., 2020). Possibilities for

Richer Learning Experiences and Cross-Cultural Competence are Stressed Cultural plurality presents a variety of benefits as well as obstacles. Exposure to many viewpoints, languages, and traditions enhances learning. It broadens pupils' perspectives, encourages critical thought, and develops intercultural competency. Schools that value cultural diversity offer a special setting where students can learn from one another's personal experiences as well as from textbooks. These encounters lay the foundation for developing citizens of the world who are skilled at navigating a linked environment (Drame et al., 2021).

The effects of cultural pluralism extend to the core of school leadership and administration, influencing how educational institutions run. Administrators at schools must create inclusive policies that take into account the special requirements of student groups that are culturally diverse. This includes creating curricula that include many viewpoints and experiences, as well as giving educators access to resources for language assistance and cultural competency training. Educational administrators should fund staff and teacher training in cultural competency. With the help of this program, educators will be better able to establish inclusive classrooms, foster empathy, and gain a deeper awareness of cultural nuances. Conflicts among students or between students and educators may result from cultural heterogeneity. To deal with these problems quickly and constructively, school administrators should have efficient mediation and conflict resolution processes in place. Setting the tone for diversity within their organizations, school leaders are essential. All students need to feel appreciated, respected, and empowered to express their cultural identities, which they must actively work to foster. It's crucial to interact with the larger community. A more comprehensive strategy for integrating cultural pluralism in education can be facilitated by cooperation with parents, local authorities, and cultural institutions (Lee et al., 2020).

4. The Role of Emotional Intelligence in School Administration

The deep impact of emotional intelligence (EI) in influencing the educational landscape is crucial for efficient school administration. Administrators have a significant amount of authority to affect the climate in schools because they are the ones who lead and make decisions in educational institutions. Their emotional intelligence has a wide-ranging effect on various elements of the educational ecology. Administrators with strong emotional intelligence have the power to influence the culture of the entire institution. The educational community as a whole is influenced by their capacity to serve as role models for emotional self-regulation, empathy, and social skills. Students and teachers may both flourish in an environment where there is emotional safety, inclusion, and respect at school (Mustaffa et al., 2013). Student involvement, conduct, and academic success are directly and favorably impacted by administrators with high emotional intelligence (EI). Administrators are better able to recognize and address the emotional needs of pupils when they demonstrate emotional intelligence. This knowledge inspires treatments that promote students' emotional health, which improves classroom conduct, raises engagement levels among students, and improves academic performance (Halimi et al., 2021).

Self-awareness is the cornerstone of emotional intelligence for administrators. Self-aware administrators have a deep understanding of their own emotions, as well as their own strengths, shortcomings, and how their emotions affect their leadership style. They may make wise decisions and modify their leadership styles in response to diverse circumstances thanks to this self-reflection. Self-aware administrators use their emotional responses for positive leadership rather than being caught off guard by them (Köstereliоğlu, 2021). Making decisions and resolving conflicts require the highest level of emotional self-control, or self-regulation. Administrators who are able to control their emotions remain composed in stressful situations, make deliberate decisions, and handle difficult situations without acting on impulse. Self-control is a crucial talent for preserving a peaceful learning atmosphere in schools (Valente et al., 2020). Administrators can establish deep connections with students, teachers, and parents through the use of empathy. Administrators with empathy are able to not only comprehend the thoughts and feelings of others, but also to act with kindness and support. Empathy fosters an inclusive environment where different viewpoints are heard and respected in the educational setting (Perry et al., 2020). Emotionally competent administrators have a reputation for interpersonal effectiveness. These leaders are exceptional in forging enduring bonds, resolving issues in productive ways, and working with a variety of stakeholders. Their skill in building relationships and communication generates a sense of trust and community within the classroom, fostering a setting that is supportive of learning and development (Kamboj & Garg, 2021).

Numerous academic studies and real-world case studies back up the claim that emotional intelligence in administrators is positively correlated with academic performance. Numerous studies have shown that executives with high levels of emotional intelligence perform better in their positions. They are linked to higher student satisfaction, lower staff

turnover, and higher instructor morale (Halimi et al., 2021; Ranasinghe et al., 2017). Additionally, studies have demonstrated a connection between effective leadership and improved academic performance and overall school success. Case studies from real life serve as additional evidence of the practical advantages of emotional intelligence in school management. These examples show how emotionally savvy administrators have changed school environments, settled disputes, and enhanced student outcomes. These success tales provide convincing evidence of how emotional intelligence affects educational leadership in real-world settings (Singh, 2013).

5. Strategies for Developing Emotional Intelligence in School Administrators

Administrators who want to improve their emotional intelligence can make use of a comprehensive toolkit that includes a range of tactics and resources. Use approved self-assessment tools to examine your emotional intelligence skills to start with self-awareness. These instruments, including the Travis Bradberry and Jean Greaves Emotional Intelligence Appraisal or the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), give administrators a foundational understanding of their emotional intelligence strengths and opportunities for development (Cliffe, 2018). By incorporating mindfulness techniques into their everyday routines, administrators can begin a path of self-improvement. The practice of mindfulness fosters self-awareness and emotional control. The use of methods like mindfulness-based stress reduction (MBSR) training, deep breathing exercises, and meditation can help managers better control their stress levels and build emotional toughness. Additionally, keeping an emotional journal can be a helpful reflection tool for administrators, enabling them to monitor their emotional reactions and spot trends over time (Shakir et al., 2017).

A plethora of possibilities exist for administrators to pursue professional development that is focused on developing emotional intelligence. Workshops and training programs with a specific focus on developing emotional intelligence skills are frequently offered by educational institutions and professional organizations. These programs offer administrators a disciplined learning environment to improve their social, emotional, and emotional intelligence. Modules on identifying and controlling emotions, empathic communication, and conflict resolution may be included (Hajibabaee et al., 2018). Peer coaching and mentoring are essential for developing emotional intelligence in administrators. Engaging in mentoring relationships with seasoned leaders who have high emotional intelligence can offer insightful advice. Peer coaching, in which administrators work together to support and coach one another, creates a secure environment for putting emotional intelligence abilities to use in situational contexts (Hebard et al., 2021).

To systematically improve the emotional intelligence of school administrators, it is critical to incorporate emotional intelligence training into leadership development programs and courses. Modules for emotional intelligence training can be incorporated into current leadership development programs in schools and other educational institutions. These modules can be created to meet the unique requirements and difficulties experienced by administrators in classes with a diversity of cultural backgrounds. Cultural awareness, empathy in leadership, and conflict resolution in different situations are a few such topics (Glenn & Claman, 2019). Emotional intelligence is a core ability that can be included in leadership development programs. Administrators can take courses that examine how emotional intelligence is used in educational leadership in real-world settings. There may be opportunities for self-reflection, case studies, and participatory exercises in these classes (Glenn & Claman, 2019). Administrators who pursue continuing education in emotional intelligence are more likely to be knowledgeable about the most recent findings and recommended procedures. Emotional intelligence certifications and professional development units (PDUs) can both be recognized as important contributions to continuous leadership development (Hourani et al., 2020).

6. Challenges and Critiques

Engaging with potential objections and difficulties related to the application of emotional intelligence in school administration is crucial. Many detractors claim that emotional intelligence tests are fundamentally subjective and rely too heavily on self-report data. They argue that people might not accurately gauge their emotional intelligence, which could result in biases and inaccurate measurement (Piekarska, 2020). Another difficulty is getting administrators to take emotional intelligence training. Some people could consider it superfluous or disregard it as a soft talent with little real-world use in educational leadership (Köstereliоğlu, 2021).

Counterarguments can be made in response to these criticisms to show the benefits and efficiency of incorporating emotional intelligence into school management. Self-report assessments do have some drawbacks, but research has shown that they can nevertheless offer insightful information on someone's emotional intelligence. Furthermore, objective measurements, such 360-degree feedback assessments, can be used in conjunction with self-report assessments to provide a more complete

picture. These tools can provide insightful data for personal growth when utilized carefully and in conjunction with other assessment techniques (Halimi et al., 2021). It is possible to overcome resistance to emotional intelligence training by focusing on practical advantages and methods that have been proven effective. Research has repeatedly demonstrated that managers with higher emotional intelligence make better leaders. The practical application of emotional intelligence training in educational environments can be demonstrated through concrete examples, such as case studies of institutions with improved school climates and student results (Hourani et al., 2020).

It's crucial to note the ongoing scholarly discussions about how emotional intelligence contributes to effective leadership. These discussions frequently center on how emotional intelligence is measured and assessed, how it is expressed in different cultures and contexts, and how important it is in relation to other leadership characteristics (Pillay et al., 2013). The methods for assessing and measuring emotional intelligence are still being developed by academics. Concerns concerning subjectivity and cultural biases in assessment instruments which is equal true for emotional intelligence scales (Alordiah, 2020; Alordiah and Agbajor, 2014). They are being addressed by ongoing research. Different cultures and environments may have different ways that emotional intelligence is expressed and perceived. Some claim that there may not be a one-size-fits-all approach to emotional intelligence, emphasizing the need for training and testing that are culturally sensitive (Halimi et al., 2021). Whether emotional intelligence is the most crucial leadership competency or just one of many significant aspects is up for dispute. While it is important, some contend that other traits, such as technical proficiency and strategic thinking, are equally essential for good leadership (Al-Motlaq, 2018).

7. Implications for Culturally Pluralist Classrooms

The effects of emotional intelligence-based instruction for classes with diverse cultures are significant:

High emotional quotient administrators are essential to creating inclusive and fair learning environments. All children are more likely to have a sense of belonging when teachers are able to empathize with kids from different backgrounds, comprehend their particular emotional needs, and establish emotionally safe settings. Every kid may feel valued and respected in this inclusive environment that crosses cultural barriers.

Cultural conflicts are typical in schools with a diversity of cultures. By utilizing their sympathetic communication abilities, administrators with emotional intelligence are skilled at mediating and resolving such issues. They facilitate candid conversations that support peaceful conflict resolution and intercultural understanding. Leadership that is based on emotional intelligence fosters a climate of respect for different viewpoints and motivates students to have fruitful cross-cultural conversations.

Students' cognitive capacities are improved when they feel emotionally protected and supported. Stress, anxiety, and behavioral problems that can impede learning are reduced by administrators who place a high priority on emotional intelligence.

Students have a special opportunity to develop social-emotional abilities including empathy, tolerance, and communication in culturally pluralist settings. By promoting and modeling these talents, emotional intelligence-based administration amplifies these opportunities and promotes the development of well-rounded people.

Schools are little windows onto society. By instilling in children the value of empathy, respect, and inclusion, administrators who place a high priority on emotional intelligence contribute to social peace and cohesion. These lessons help build more tolerant and understanding communities outside of the classroom.

In an era of globalization, emotionally intelligent administrators prepare students to thrive in a world where cross-cultural interactions are the norm. These students are better equipped to engage in international collaborations, understand global issues, and contribute positively to a diverse and interconnected global society.

Students that attend emotionally intelligent schools enter the workforce with a strong understanding of other cultures. They may contribute to firms that emphasize emotional intelligence in leadership because they are more suited to negotiate different workplaces, encourage diversity and inclusion, and do so.

8. Conclusion

A transformational strategy with broad ramifications for classrooms that are culturally diverse is the incorporation of emotional intelligence into school administration. This in-depth study has examined the concept's many dimensions, from its definition and historical development to its significance for effective school leadership. The paper started by laying the groundwork, exploring the complexity of emotional intelligence, its evolution through time,

and the current discussions around its measurement and assessment. We understood that despite some difficulties, emotional intelligence has a big potential to improve school administration. The essay then looked at the value of emotional intelligence in classrooms with a varied student body that represents a rich tapestry of cultures and backgrounds. The study emphasized the importance of emotionally intelligent administrators who can manage these intricacies with sensitivity and empathy, as well as the benefits and challenges that come with cultural diversity. The essay went on to discuss the crucial role that emotional intelligence plays in school leadership, showing how leaders with high emotional intelligence can influence school climates, encourage student participation, and boost academic performance. The significance of particular emotional intelligence skills and competences, such as self-awareness, self-regulation, empathy, and social skills, was highlighted. Furthermore, the study included techniques for both personal and professional growth, serving as a toolkit for administrators to increase their emotional intelligence. In order to give administrators the skills and knowledge necessary to lead with emotional intelligence, we also talked about how to incorporate emotional intelligence training into curriculum and programs for leadership development. The report addressed issues about the subjectivity of emotional intelligence assessment and opposition to emotional intelligence training while acknowledging probable obstacles and criticisms. The essay acknowledged the current academic discussions about how emotional intelligence contributes to effective leadership and offered evidence-based counterarguments. The essay concluded by looking at the implications of emotional intelligence-based administration for culturally diverse schools, highlighting its role in creating inclusive and equitable environments, long-term advantages for students, and wider societal impact. This strategy improves education while also making the globe a more peaceful and interconnected place. Emotional intelligence is emerging as a crucial ability for school administrators in a fast-changing world characterised by cultural variety and interconnection. It gives them the ability to establish inclusive learning environments, empathetic leadership, and student success in a worldwide culture. We make a big advancement in building a more just, peaceful, and emotionally intelligent educational environment by embracing emotional intelligence in school administration.

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Principals' Key Administrative Practices and Teachers' Job Performance in Secondary Schools in Delta State, Nigeria

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Abstract. The study examined the work performance of teachers in public secondary schools in Delta State, Nigeria, as well as the principals' essential administrative practices. The study used the correlational survey's propositions. All Delta State Public Secondary School principals and teachers for the 2023–2024 academic year made up the study population. 480 teachers and 120 principals were chosen for the sample using a proportionate stratified random sampling method. The study was guided by three hypotheses and three research questions. A questionnaire was the instrument used in this investigation. The internal consistency of the instrument's items was determined through a reliability test using the Cronbach Alpha method, which produced a reliability index of 0.84 after the instrument was validated. The chi-square test was used to test hypotheses at 0.5 level of significance, while mean scores and standard deviations were utilized to address the research questions. The results of the study showed, among other things, that effective teachers' administrative practices enhance teachers' job performance, principals involve teachers in decision making strategies in the school system, principals utilize certain welfare management strategies to enhance teachers' job performance, and that principals' key practices that will result in positive teachers' job performance are not viewed differently by principals and teachers. Based on the results, school principals were advised to implement positive administrative practices in order to enhance teachers' performance, principals should include teaching staff in decision making processes, and facilitate easy communication within the school system in order to support the ideas of the teachers.

Keywords: Decision-making, Job Performance, Teachers, Principals, Key Administrative Practices.

1. Introduction

It is impossible to overstate the importance of education in society since it helps students grow as individuals, which enhances their surroundings and helps them recognize the value, worth, and purpose of other people. Without a doubt, development has the ability to be successful in helping humanity overcome its problems, and education is one of the most powerful instruments for influencing global perspectives and values. It encourages students to adopt a sustainable lifestyle. The fact that education is acknowledged as a means of achieving all of the Sustainable Development Goals (SDGs) by the United Nations 2030 process is not surprising (Vasilik and Nicholas, 2019).

Education imparts values, attitudes, abilities, and knowledge that satisfy the needs and expectations of the individual, the country, and the world. A quality education encourages the growth of positive thinking, which in turn develops the desire and capacity for lifelong learning. But secondary education still needs to be improved if high-quality education is to be attained. Secondary schools usually build upon and expand upon the pre-school, primary, and primary school foundations. It is sufficient to say that without the dedication, leadership, and managerial abilities needed to completely revamp the school, academic objectives are unlikely to be met. According to Nevin (2008), this change actually advances quality education by fostering innovation in the classroom and, consequently, modifications in the way that learning is accomplished to meet objectives.

While there are many things the principal can do to make sure the school meets its objectives, his leadership is most evident when he is planning,

organizing, granting permission, making decisions, and motivating staff members. Honestly, having a solid education plan, a well-designed curriculum, and a productive workforce are all necessary for success here; what really matters most is having strong leadership to oversee everything. Effective principal leadership facilitates teachers' high levels of productivity.

In Nkem (2011), Fafunwa reaffirmed that good secondary school management continues to be based on the efficient administration of principals. In order to accomplish the objectives of the school, the principal must manage staff and resources in an efficient manner. Teacher work is displayed in schoolwork. This implies that the principal's ability to oversee teachers' personal beliefs and manage the school, as well as the teacher's needs, are both critical to the success of the students (Adeniyi, 2005). In order to ensure the success of the school, the principal oversees all activities in the secondary school and keeps a close relationship with the teachers who work beneath them. The success or failure of the school administration is largely dependent on the principal, and for the school to succeed, the principal and teachers need to get along well (Nwadiani 2008). Administrators must assist teachers, keep an eye on their wellbeing, and know when and how to assign authority or responsibility. School administrators employ all of these administrative strategies to guarantee effective teaching and learning in the classroom as well as good school administration. The principal could be seen as the administrative leader of secondary schools responsible for the day-to-day administration of the school for the achievement of set goals and objectives (Ogbonnaya, 2010). In order to accomplish the goals and objectives of the school, the principal, who serves as the manager, is in charge of business planning, management, and coordination, including the management of people, equipment, money, and time (Hillinge and Heck, 2012). According to Adeyemi (2011), these duties, which include managing secondary school administration, overseeing teacher welfare, and exercising effective leadership, can be developed via the efforts of qualified educators and leaders. Administrators are responsible for influencing teachers in the performance of their duties by utilizing a variety of tactics to produce positive outcomes, which will enhance management and showcase quality work (Nwabueze, Chukwuji, and Ugwoezuonu, 2018).

1.1 Statement of the Problem

In Delta State, Nigeria, public secondary school principals seem to be lacking in administrative skills. Our secondary school system's teachers are performing poorly as a result of these shortcomings. There is evidence of poor work performance among teachers in the educational system due to outdated infrastructure, absenteeism, irregular attendance, and low-quality instruction from teachers. School principals should concentrate on these essential areas of school administration to guarantee that teachers not only increase job performance but also teach effectively and efficiently.

Similarly, it seems that some secondary school principals do not include their teachers in the decision-making process, and the secondary school system has inadequate staff care and instructional materials. These circumstances not only have a negative impact on the standard of instruction and learning in classrooms, but they also play a role in secondary school teachers' subpar performance. Consequently, it is imperative to scrutinize the principals' key administrative practices and the job performance of teachers in public secondary schools located in Delta State, Nigeria.

1.2 The Purpose of the Research

The study's main purpose is to ascertain how teacher performance in Delta State's public secondary schools relates to the principals' key administrative strategies. The study specifically aims to:

- Identify the principals' essential administrative practices that would enhance the efficient job performance of teachers in Delta State, Nigeria's public secondary schools.
- Examine how principals make decisions that would enhance teachers' job performance in Delta State, Nigeria's public secondary schools.
- Ascertain how principals in Delta State, Nigeria's public secondary schools are utilizing staff welfare management to enhance teachers' job performance.

1.3 Research Questions

To direct the investigation, the following research questions were developed:

What are the principals' key administrative strategies that would enhance teachers' job performance in Delta State, Nigeria's public secondary schools?
2. How do principals make decisions that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria?

3. How do principals in Delta State, Nigeria's public secondary schools oversee staff welfare management to enhance teachers' job performance?

1.4 Hypotheses

The research investigated the subsequent null hypotheses:

- There is no significant difference between principals and teachers on the principals' key administrative strategies that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.
- There is no significant difference between principals and teachers on the principals' decision-making processes that would enhance teachers' job satisfaction in public secondary schools in Delta State, Nigeria.
- There is no significant difference between principals and teachers on the ways principals manage staff welfare that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

2. Review of the Literature

Effective leadership is a crucial managerial competency that enables an assembly of individuals to attain shared objectives. The efficient operation of the school greatly depends on the principal's role. The goal of the educational system needs to be communicated to the principal. They establish performance objectives for both teachers and students, monitor procedures to make sure these objectives are reached, and create a safe learning environment. Administrators oversee educators and other faculty members as well as keep tabs on student progress. They control the upkeep of school facilities and equipment and guarantee the safety of both teachers and students. In order to better students and teachers, the principal keeps conducting research and acquiring fresh information and materials. Based on the national curriculum, they establish learning objectives for both teachers and students and keep track of and report on the work of the teachers.

The administration of school principals plays a critical role in ensuring that teachers carry out instructional activities and maintaining the standard of instruction in schools, thus contributing to increased efficiency. School principals are known to engage teachers in decision-making processes, assign responsibilities appropriately, offer teacher support, keep lines of communication open, and make sure that teachers receive proper instruction and training in the classroom, according to Ekpo and Eze (2015). Teachers will be occupied with their work because of all of this. Similar to this, Ani (2007) claimed that administrative management by principals involves identifying the energy used by teachers, organizing workshops to update teachers' knowledge, planning teacher replacement training, and guaranteeing good leadership in order to ensure that teachers are motivated to improve the quality of work.

Being involved in health and welfare-related decision-making is not just a concept; it is a crucial cultural practice that helps teachers succeed in their work. Adeyemi (2011) asserted that proper management of teachers' welfare and adequate provision of instructional materials are administrative strategies to be employed by principals to enhance teachers job performance. In order to make the most use of teachers' abilities and initiative and to give them more recognition for their work, administrators should consider including teachers in decision-making processes, as noted by Nicholls (2005). The principal will not be successful in managing and carrying out the tasks of the school if they do not include teachers in open management and involve the staff in the decision-making process regarding the affairs of the school (Okeke 2011). Furthermore, administrators who do not promote staff involvement in the school's decision-making procedures are viewed as having weak leadership qualities (Otegbulu, 2009). As a result, there are less obstacles to getting involved in decisions that impact student performance, school administration, and the work of teachers. In their research, Ukaigwe and Nwabueze (2015) verified that there is a favorable correlation between the performance of teachers and the decision-making tactics used by principals.

Ukaigwe and Nwabueze (2015) state that employees are frequently satisfied when they receive good services like a competitive salary package, recognition and appreciation, an enhanced pay structure, work-life balance, timely salary payments, regular promotions, strong job security, and a sufficient salary. Teachers' work at school is positively impacted by their welfare (Kigenyi 2017). This indicates that a teacher's success in the classroom is greatly influenced by their housing, food, healthcare, scholarships, and educational environment.

Equally, adequate provision of instructional facilities is another important practice employed by principals to improve teachers job performance in the secondary school system. According to Adeyemi (2011), one of the most effective strategies to raise teacher performance is to give them the workspace and

facilities they require. Furthermore, according to Cheng and Tui (2012), teachers job performance and effectiveness in curriculum delivery / implementation rest upon adequate motivation and availability of instructional materials in schools. Similar to this, Bass (2009) thinks that when principals give teachers adequate teaching facilities they will not only perform their jobs with happiness but also improve their job performance to be successful in the classroom. This can be defined in a variety of ways.

Jay (2014) defines performance as the capacity to finish a task. Accordingly, performance is the capacity to bring ideas and deeds together to accomplish predetermined objectives. The actions taken by teachers in the classroom to meet learning objectives within a set time frame are referred to as teacher's work performance. In this context, the term teachers' job performance refers to a teacher's resolve to carry out their duties as educators in a way that aligns with the management concepts they are taught in school. Teachers' job performance is also concerned with the overall ability of teachers to exhibit the right attitude to work, being dedicated and committed to teaching and making deliberate effort towards the attainment of educational goals and objectives. Bolarinwa (2016) identifies the following as indicators of teachers' job performance: the teacher's capacity to recognize efforts to enhance students' learning; the teacher's ownership and delivery of the material; the teacher's delivery of the lesson; the teacher's efficient organization and management of the classroom; and the teacher's involvement in the curriculum activities. Along with regular study and class time, it also entails keeping in touch with superiors and subordinates on a personal level, disciplining students, providing feedback and motivation, keeping an eye on teachers' methods as well as compliance with teachers' professional codes of conducts.

The degree to which teachers are involved in the day-to-day operations of the school also affects their job. Therefore, using good management techniques, principals can support teachers in carrying out their instructional duties effectively. Administrators can accomplish this by determining the needs of teachers and making an effort to fulfill those needs. Furthermore, Adeyemi (2011) said that virtues that teachers adhere to in the classroom include teaching, lesson planning, putting effective study plans into practice, supervising students' work, and disciplinary abilities. In this instance, annual performance reports on the aforementioned variables can be used to gauge teachers' work performance.

3. The Impact of Administrative Practices Implemented by Principals on Teachers' Job Performance

Effective organizational leadership in education depends critically on how principals manage their staff members' performance. Good administrative procedures have a big impact on teachers' overall performance, professional development, and job satisfaction in a school. These are a few major effects.

• Assistive guidance: Positive work environments are typically fostered by principals who exhibit supportive leadership styles, such as providing resources, encouragement, and opportunities for professional development. According to a 2011 study by Kelechukwu, teachers' commitment and job satisfaction are positively connected with supportive leadership.
• Clear Communication: Teachers' performance can be enhanced by principals who communicate expectations, goals, and feedback in an effective manner. An environment that is favorable to work is created by principals and teachers having open lines of communication.
• Professional Development: The principal is crucial in providing teachers with opportunities for professional growth. Improvements in teaching strategies and student accomplishment can result from principals providing their staff with continual training and support.
• Just evaluation procedures: Principals can inspire teachers to give their best work by implementing impartial and open evaluation procedures. A 2017 study by Nwosu emphasized the value of evaluating teachers using a variety of metrics, such as student achievement data and observations from the classroom.
• Resource allocation: Teachers can better meet the varied needs of their students when principals manage resources like time, money, and materials. This is consistent with the findings of Giami and Obiechina (2019), who emphasized the significance of allocating resources to tactics that improve teacher effectiveness.
• Collaborative culture: School leaders can encourage the exchange of best practices, group problem-solving, and a feeling of community by cultivating a collaborative culture among their staff. According to Zeng (2012), collaborative cultures have a positive impact on teachers' job satisfaction and morale.
• Instructional Leadership: Teachers' performance can be enhanced by principals who place a high priority on instructional leadership, which includes offering feedback on curriculum development and instructional practices.

These effects highlight how crucial principals are in establishing the professional atmosphere and enhancing teacher effectiveness. Principals can contribute to the development of an educational environment that fosters student achievement and ongoing improvement by putting into place efficient administrative procedures.

4. Methodology

This study adopted a correlational survey design. This proposition establishes the extent of relationship or association between two or more variables that can be used to predict existing conditions, and the variables are related, dependent, or corrolated (Olujide, Imala, & Ezoem, 2004). The population of the study consisted of all principals and teachers in public secondary schools in Delta State. A stratified random sampling technique was used to select 120 principals and 480 teachers. The instrument used in this study was a questionnaire called "Administrative Practices of Principals and Teachers' Job Performance Questionnaire (APPTJPQ) designed by the researchers for data collection. There were two sections to the questionnaire: A and B. While A contained demographic data about the respondents, such as status, gender, and location Part B included variables thoughtfully arranged to address the research questions. A 4-point rating system with assigned values of 4, 3, 2, and 1 was used to rate the items: strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD). The reliability test was conducted using the Cronbach Alpha method to determine the internal consistency of the instrument's items, and the results showed that the reliability index was 0.84. The instrument had also been validated by experts. Two research assistants helped the researchers to manage and gather the study's data. The research questions were addressed using the mean and standard deviation. When average responses were tallied, agreement was defined as a mean score of 2.50 or higher, and disagreement as a mean score of less than 2.50. To test hypotheses at the 0.05 significance level, chi-square was employed.

5. Presentation of Results

Research Question 1: What are the principals' key administrative strategies that would enhance teachers' job performance in Delta State, Nigeria's public secondary schools?

Table: Mean and standard deviation of respondents on the key administrative practices of principals that would enhance teachers' job performances.

S/N	Items	Principals (N=120)			Teachers (N=480)		
		X	std	Decision	x	std	Decision
1.	Proper delegation of duties to teachers	3.20	0.28	Agree	2.98.	0.077	Agree
2.	Adequate provision of instructional materials	3.40	0.31	Agree	2.92	0.077	Agree
3.	Maintaining open communication Channels with teachers	3.33	0.30	Agree	3.02	0.077	Agree
4.	Organizing workshops and seminars to update teachers' knowledge	2.99	0.26	Agree	3.24	0.077	Agree
5.	Proper involvement of teachers' in Decision making process	3.42	0.31	Agree	3.39	0.083	Agree
Grand Mean & Std		**3.26**	**1.48**		**3.06**	**0.38**	

Table showed the mean score and standard deviation of principals and teachers on the administrative key practice of principals that would enhance teachers' job performance in secondary schools. The finding revealed that good administrative principals include paper delegation of duties to teachers, adequate provision of instructional material, maintaining open communication channels with teacher organizing workshops and seminars to update teachers' knowledge and proper involvement of teachers in decision working process. The respondents score above 2.50, indicating a strong agreement. Also, the grand mean of 3.26 and 3.06 (for principals and teachers respectively) showed that the responded were strongly accepted. However, their standard deviation ranged between 1.48 and 0.38, indicating convergence and clear deviation with the statement

Research Question 2: How do principals make decisions that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria?

Table 2: Mean and standard deviation of respondents on principals' decision making processes that would enhance teachers' job performance

S/N Items	Principals (N=120)			Teachers (N=480)		
	X	std	Decision	x	std	Decision
6. Principals and teachers often meet to take decisions	3.19	0.28	Agree	3.19	0.077	Agree
7. Teachers views in the meeting are Considered by the principal	3.08	0.26	Agree	3.36	0.083	Agree
8. Principals encourage co-operation among teachers	3.18	0.28	Agree	3.06	0.077	Agree
9. Principals listen respectively to teachers ideas and suggestions	3.34	0.30	Agree	2.96	0.077	Agree
10. Principals regulate meetings with teachers	3.39	0.30	Agree	3.20	0.077	Agree
Grand Mean & Std	**3.23**	**1.42**		**3.15**	**0.39**	

Data in table 2 showed the mean scores and standard deviation of respondents on principals' decision-making processes that would enhance teachers' job performance in Public Secondary School in Delta State. Nigeria. The result reveals that all the items in the table from 6-10 on the participants responses scored above 2.50, indicating a strong agreement with the statement by the participants. Also the grand mean of 3.23 and 3.15 (for principal and teachers respectively) showed that principals decision making processes include, principals and teachers often meet to take decision, teachers views in the meetings are considered by the principals, principals encourage co-operations among levels, principals listen respectively to teachers ideas and suggestions and principals ranged between 1.42 to .39 (for principals and teachers, respectively), indicating convergence and closer deviation.

Research Question 3: How do principals in Delta State, Nigeria's public secondary schools oversee staff welfare management to enhance teachers' job performance?

Table 3: Mean and standard deviation on how principals manage staff welfare to enhance teachers' job performance in secondary schools

S/N Items	Principals (N=120)			Teachers (N=480)		
	X	std	Decision	x	std	Decision
11. Recognition of efforts of teachers	3.29	0.30	Agree	3.03	0.077	Agree
12. Regular payment of salaries and allowances	3.23	0.28	Agree	3.01	0.077	Agree
13. Promotion of Teachers as at when due	3.18	0.28	Agree	3.19	0.077	Agree
14. Provision of conducive working environment	3.20	0.28	Agree	3.09	0.077	Agree
15. Assurance of effective work security	3.39	0.30	Agree	3.13	0.077	Agree
Grand Mean &Std	**3.25**	**1.44**		**3.09**	**0.39**	

Table 3 showed the mean ratings of respondents on how principals manage staff welfare to enhance teachers' job performance in Public Secondary Schools in Delta, State, Nigeria. The result revealed that all the items scored above 2.50, indicating a positive response and strong agreement with the statements by the respondents. Also the grand mean of 3.25 and 3.09 (for principals and teachers respectively) revealed that the responses were strongly acceptable which identified the ways principals' mange staff welfare to enhance teachers' job performance in Public Secondary Schools in Delta State, Nigeria. Their standard deviation ranged between 1.44 and 0.39, indicating convergence and closer deviation with the statements.

Hypotheses 1: There is no significant difference between principals and teachers on the principals' key administrative strategies that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

Table 4: Chi-square analysis on the difference between principals and teachers on the key administrative practices of principal that would enhance teachers' job performance

Variables					Row Total	x3 Value
	Strongly Agree	Agree	Disagree	Strongly Disagree		
Principals	50 (52)	41 (56)	20 (09)	09 (03)	120	2.7
Teachers	210 (208)	240 (225)	25 (36)	05 (11)	480	
Column Total	**260**	**281**	**45**	**14**	**600**	

Significant at 0.05 level

Table 4 indicated that at 0.05 and 3 degree of freedom, the chi-square calculated value of 2.7 is less than the critical value of 7.815, there is no significant deviation between observed and expected cell frequencies. Therefore, there is no significant difference between principals and teachers on the principals' key administrative strategies that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

Hypothesis 2: There is no significant difference between principals and teachers on the principals' decision-making processes that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

Table 5: Chi-square analysis on the differences between principals and teachers on principals' decision-making processes that would enhance teachers' job performance in secondary schools.

Variables					Row Total	x3 Value
	Strongly Agree	Agree	Disagree	Strongly Disagree		
Principals	48 (48)	50 (52)	20 (16)	02 (04)	120	0.55
Teachers	192 (192)	208 (206)	60 (64)	20 (18)	480	
Column Total	**240**	**258**	**80**	**22**	**600**	

Significant at 0.05

Table 5 revealed that at 0.05 level of significance and 3 degree of freedom, the chi-square calculated value of 0.55 is less than the critical value of 7.815, there is no significant deviation between observed and expected cell frequencies. Therefore, there is no significant difference between principals and teachers on principals' decision-making processes that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

Hypothesis 3: There is no significant difference between principals and teachers on the ways principals manage staff welfare that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

Table 6: Chi-square analysis on the difference between principals and teachers on principals' management of staff welfare that would enhance teachers' job performance in secondary schools.

Variables					Row Total	x3 Value
	Strongly Agree	Agree	Disagree	Strongly Disagree		
Principals	60 (44)	40 (46)	15 (27)	05 (03)	120	3.54
Teachers	162 (178)	188 (182)	122 (110)	08 (10)	480	
Column Total	**222**	**228**	**137**	**13**	**600**	

Significant at 0.05

Table 6 indicates that at 0.05 level of significance and 3 degree of freedom, the chi-square calculated value of 3.54 is less than the critical value of 7.815, there is no significant deviation between observed and expected cell frequencies. Therefore, there is no significant difference between principals and teachers on the ways principals manage staff welfare that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria.

6. Discussion of Findings

The researchers used relevant literature from the work to support the study and adhered to the data organization when discussing the study's findings. The first research question's findings showed that effective principal administrative strategies would enhance teacher performance. These strategies included giving teachers the right amount of responsibility, providing them with sufficient instructional materials, keeping lines of communication open, hosting workshops and seminars to keep teachers up to date on current practices, and appropriately involving teachers in decision-making processes. The first hypothesis also proposed that, there is no significant difference between principals and teachers on the principals' key administrative strategies that would enhance teachers' job performance in public secondary schools in Delta State, Nigeria. If appropriately implemented, these essential practices for secondary school principals would assist educators in enhancing their work and consequently increase student productivity. The aforementioned outcome is consistent with the assertion made by Ekpa and Eze (2015) when they listed the administrative practices of principals, which include allowing teachers to participate in decision-making, assigning tasks appropriately, keeping lines of communication open, and providing sufficient instructional resources. According to Bass (2009), principals who give their teachers proper facilities to teach in not only make them happy with their work and responsibilities but also push them to enhance their performance in order to boost systemic productivity.

The answers to the second research question highlighted some crucial procedures used by principals in decision-making processes that would enhance the productivity of teachers in Delta State, Nigeria's public secondary schools. Among these are meetings between principals and teachers for the purpose of making decisions; principals encouraging collaboration among teachers; principals paying attention to the ideas and suggestions of teachers; and principals overseeing meetings with teachers. Additionally, hypothesis two showed that when it comes to principals' decision-making processes to enhance job performance in public secondary schools in Delta State, Nigeria, there are no appreciable differences between them and teachers. In order for teachers to perform their jobs effectively, principals actually need to encourage and involve them in the decision-making process. The aforementioned results are consistent with Adeyemi's (2011) assertion that active work performance by teachers in the school system is supported by a principal who includes them in decision-making. According to Nicholls (2005), one effective way for principals to leverage teachers' creativity and initiative and enhance their performance in their roles is to include them in decision-making processes. It's possible that principals will struggle to effectively manage their schools if they don't include staff members in decision-making processes and encourage open communication (Okeke, 2011).

Once more, research question three demonstrated how principals in Delta State, Nigeria's public secondary schools oversee staff welfare in order to raise teacher performance. These consist of giving teachers credit for their work, paying their salaries and benefits on time, promoting teachers, creating a positive work environment, and offering effective job security. In addition, hypothesis three proposed that there is no discernible difference in the ways in which principals and teachers in Delta State, Nigeria's public secondary schools manage staff welfare to enhance job performance. In actuality, principals who provide strong staff leadership assist teachers' personal needs, safeguard their interests in the educational system, and suggest teachers for advancement and continuing education. The aforementioned findings are consistent with Nwabueze's (2015) assertion that employee interest in working efficiently to increase productivity will be positively increased by good service and welfare packages, such as acknowledging effort, improving the salary structure, offering regular promotions, promoting employees on a regular basis, and regularly paying wages and allowances. Actually, there is a positive correlation between teachers' job performance in the educational system and their level of well-being (Kigenyi, 2017). In fact, there is a positive correlation between social services and job content and teacher job performance in the educational system.

7. Conclusion

The principal's character is both reflected in and declared by the school. The administrative abilities of the institution's director are evident in every aspect of the educational system. As a result, the way principals run the school system administratively has a big impact on how well teachers perform. Teachers are

able to maintain an open relationship with resourceful principals who consistently implement good administrative practices in schools by including them in decision-making processes and giving them sufficient social packages to enhance performance.

8. Recommendations

These results lead to the following suggestions being made:

- To encourage teachers to provide ideas to the organization, principals should make sure that there is easy communication within the workplace.
- Positive administrative strategies should be implemented by principals in order to raise teacher performance.
- To improve work performance, principals should include both teaching and non-teaching staff in decision-making processes.
- To motivate staff members to give their all, managers ought to enhance their welfare benefits.

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The Assessment of Knowledge of Health Promotion Activities on Selected Secondary Schools Students

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Abstract. This study examines knowledge of health promotion activities on the students' well-being in selected schools, using structured questionnaire to gather data from selected secondary schools. In achieving this, it employed simple ordinary least square regression technique. The findings of this study revealed knowledge of health promotion activities exhibited a significant positive effect on the students' well-being in boys' schools in Owo, Ondo State; Knowledge of health promotion activities showed a significant positive effect on the students' well-being in girls' schools in Owo, Ondo State and knowledge of health promotion activities displayed a significant positive effect on the students' well-being in coeducational schools in Owo, Ondo State. The study concluded that knowledge of health promotion activities displayed a significant positive effect on the students' well-being of selected schools in Ondo state. The study recommends that schools should incorporate structured health promotion activities and programs into their regular curricula. This could include lessons on nutrition, physical fitness, mental health awareness, and hygiene practices.

Keywords: Health Promotion Activities; Physical Well-being; Mental Well-being

1. Background to the study

Health knowledge is a fundamental and enduring concept that plays a crucial role in promoting and maintaining well-being. It encompasses the acquisition, comprehension, and practical application of health information to support a healthy lifestyle. Health knowledge is indispensable across the entire spectrum of healthcare, spanning from proactive wellness and health maintenance to the realms of disease prevention, early detection, and diagnosis, informed decision-making and effective self-care. At its core, health knowledge involves the effective communication and interpretation of health-related information. It empowers individuals to not only comprehend health messages but also to apply this knowledge in real-life situations, making informed choices about their health. This holistic understanding of health knowledge is essential for individuals to navigate the complexities of healthcare, engage in preventive practices, and actively participate in their own well-being (Hamilton-Ekeke et al., 2020).

In the context of sustainable development, education emerges as a pivotal force that enhances skills, values, and attitudes, enabling individuals to lead healthy and fulfilling lives (WHO, 2021). The intrinsic link between health and education becomes apparent in the impact poor health can have on school attendance and academic performance (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2021). Schools serve as crucial environments where students not only acquire knowledge across various educational domains but also cultivate habits for healthy living throughout their lifetimes. Beyond academic pursuits, schools are increasingly recognized as essential settings for promoting long-term educational attainment and supporting the health and well-being of students, their parents or caregivers, and the local community. This interconnected perspective underscores the integral role of education in fostering both individual and community health (WHO, 2021). Schools play a crucial role in disseminating health messages through their curricula, as highlighted by Oparaeke and Bello in 2012. Beyond academic instruction, schools serve as vital environments for promoting health knowledge, particularly among adolescents. Given that many risk behaviours are established during this stage of life,

schools are strategically positioned to foster a robust and sensible level of health literacy among students, especially those in secondary schools, as emphasized by Hamilton-Ekeke et al. in 2020.

1.1 Statement of the Research Problem

A comprehensive assessment and description of the global landscape of factors influencing school health conditions, including the environment, services, and education, is relatively limited. Descriptive literature on school health programs is largely inadequate, primarily focusing on interventions directed at individual problems. The available literature also exhibits significant geographical disparities, with more information concentrated on Europe, the USA, and Canada compared to other regions and countries worldwide. However, existing literature in Nigeria highlights a prevalent challenge in Nigeria, where a substantial portion of the population exhibits low literacy skills, leading to difficulties in comprehending medical advice (Hamilton-Ekeke et al., 2020). Recognizing the urgency of addressing this issue, Flecha et al. (2011) emphasize the importance of implementing health promotion and intervention strategies within secondary schools, utilizing methods that focus on enhancing health knowledge. Despite efforts to integrate health literacy programs into schools, studies indicate that students often rely more on external sources, such as the media, friends, parents, coaches, and doctors, rather than the health information acquired within the educational system (Hamilton-Ekeke et al., 2020). Notably, formal health literacy initiatives in schools may falter due to a lack of consideration for the needs of teachers and family members.

The global concern arises from the observed disparity between preferred learning methods and the current educational approaches for health knowledge. While efforts have been undertaken to positively impact adolescents through health knowledge promotion in secondary schools, there remains a substantial need to explore and comprehend how to effectively support health knowledge across various developmental stages, including middle childhood and pre-adolescence (Owoyemi, 2018). Closing this gap is imperative for establishing a more comprehensive and impactful framework to promote health knowledge and cultivate positive attitudes toward health among the youth. Notably, the researcher acknowledges a limited focus on recent research and literature dedicated to assessing the knowledge of health promotion activities among selected secondary school students in Ondo State, Nigeria. This knowledge gap prompts the current study, motivated by the necessity to investigate the assessment of knowledge regarding health promotion activities among students in the Owo local government area. The aim is to contribute valuable insights that can inform more targeted and effective health promotion initiatives within the secondary school context.

1.2 Aim and Objectives

The aim of this study is to investigate the assessment of knowledge of health promotion activities on selected secondary schools' students in Owo, Owo Local Government Area of Ondo State, Nigeria. This study's specific objectives include:

- To evaluate the effect of knowledge of health promotion activities on the students' well-being in boys' school in Owo, Ondo State.
- To ascertain the impact of knowledge of health promotion activities on the students' well-being in girls' school in Owo, Ondo State
- To investigate the influence of knowledge of health promotion activities on the students' well-being in coeducational school in Owo, Ondo State.

1.3 Research Questions

The following research questions are formulated to guide the study:

- What is the effect of knowledge of health promotion activities on the students' well-being in boys' school in Owo, Ondo State?
- What is the impact of knowledge of health promotion activities on the students' well-being in girls' school in Owo, Ondo State?
- What is the effect of knowledge of health promotion activities on the students' well-being in coeducational school in Owo, Ondo State?

1.4 Research Hypotheses

The following hypotheses were tested in the study:

Ho_1: There is no significant effect of knowledge of health promotion activities on the students' well-being in boys' schools in Owo, Ondo State.
Ho_2: There is no significant effect of knowledge of health promotion activities on the students' well-being in girls' schools in Owo, Ondo State.
H_{O3}: There exists no significant effect of knowledge of health promotion activities on the students' well-being in co-educational schools in Owo, Ondo State.

2. Literature Review

This section delves into pertinent literature, encompassing conceptual and theoretical reviews, along with an examination of empirical studies relevant to the subject under investigation. Providing the backdrop for the study, the literature review establishes the context within the existing body of knowledge. It also elucidates to the researchers the findings of prior studies closely connected to the ongoing research. This comprehensive review addresses key issues and identifies research gaps within the existing literature.

2.1 Conceptual Review

In this section, we delve into the interconnected variables and concepts, supported by relevant theories pertinent to this study. Comprehensive explanations of the definitions and components of each variable are provided. The discussion focuses on elucidating the understanding of health promotion activities and the well-being of secondary students. Moreover, it explores the relationships between the knowledge of health promotion activities and the well-being of secondary students.

2.1.1 Health

Health, as defined by the World Health Organization (WHO), is a state of complete physical, mental, and social well-being, transcending the mere absence of disease (Leonardi, 2018). This holistic concept implies that various factors, including genetics, lifestyle choices, environmental conditions, access to healthcare, and social and economic factors, collectively influence an individual's health (WHO, 2021).

In 1948, the WHO comprehensively defined health as a state encompassing physical, mental, intellectual, emotional, and social well-being. It emphasizes adaptability to life's challenges, stress management, skill acquisition, and positive relationships. The influence of biological, socio-cultural, economic, and environmental forces on health is widely acknowledged (National Council of Educational Research, 2023). Physical health denotes the proper functioning of the body, the absence of diseases or disorders, and the ability to engage in daily activities without significant limitations. Mental health involves emotional and psychological well-being, encompassing stress management, resilience, and a positive mindset. Social health considers the quality of relationships, social support, and meaningful interactions within one's community (Germanov et al., 2018; Pashchenko & Krasnikova, 2017).

Physical health is foundational for current well-being and future life outcomes, encompassing physical activity, a balanced diet, and a healthy weight range, particularly crucial during adolescence when health-related attitudes and behaviors form (Government of Western Australia, 2023). The scientific interpretation of physical health describes it as a dynamic state involving the preservation and development of biological, physiological, and mental functions, optimal work capacity, and social activity. It is a dynamic balance with the external environment and a crucial aspect of individual survival and reproduction (Koipysheva et al., 2018).

Various definitions highlight physical health as the result of a balance between internal and external relations, a normal function at all levels, and the body’s ability to adjust to changing conditions. Lebedinsky et al. (2017) propose a new definition, describing physical health as the genetically determined motor capacity of individual undergoing changes in morphofunctional adaptation throughout life. Promoting and maintaining health involves adopting healthy behaviors such as regular exercise, balanced nutrition, adequate sleep, stress management, and avoiding harmful habits. Regular health check-ups are crucial for early detection and management of potential health issues. Importantly, health is dynamic, individualized, and requires ongoing attention and effort (WHO, 2021).

2.1.1.2 Health Knowledge

Health knowledge encompasses understanding and awareness of information related to health and well-being, covering diverse topics such as anatomy, physiology, nutrition, exercise, mental health, preventive measures, medical conditions, and treatment options. It is crucial for making informed decisions about one's health and lifestyle (Rinco´n Uribe et al., 2021). According to Trevethan (2017), health knowledge is a theoretical construct that includes detailed information about various aspects of health, from etiology and prevalence to risk factors, prevention, transmission, symptomatology, disease treatment, health services, and patient rights. Acquiring health knowledge is possible through formal education, personal experiences, reading, attending health-related events, workshops, seminars, and consulting healthcare professionals. This knowledge empowers individuals to actively manage their health, prevent illnesses, and make lifestyle choices contributing to overall well-being.

Pandemic knowledge, focusing on transmission and prevention, is highlighted by Rinco´n Uribe et al. (2021) as a crucial factor influencing the adoption of preventive behaviors during health emergencies. While evidence syntheses reveal the importance of knowledge about health components in shaping preventive practices, there is ongoing exploration to identify other categories within the broad conceptual structure of health knowledge relevant to public behavior during such emergencies. Promoting health knowledge is deemed a fundamental strategy during public health crises, enabling communities to comprehend risk factors and respond swiftly to contain infection outbreaks (Costa et al., 2018).

Health literacy, as defined by Adekoya-Cole et al. (2015), is the capacity of individuals to obtain, process, and understand basic health information and services needed for informed decision-making about their health. Influencing factors in Nigeria include culture, belief systems, communication barriers, lack of education, low educational levels, and socioeconomic status. Low health literacy is linked to poorer health outcomes, inadequate understanding of preventive services, and increased hospital visits. To enhance health literacy and improve health indices, identifying and modifying factors that influence health literacy is crucial.

Olabanji (2023) emphasizes the vital role of health knowledge in enabling individuals to navigate and make informed decisions within the healthcare system. It involves understanding, interpreting, and acting upon medical information, as well as sourcing and analyzing relevant health information for preventive measures and self-care. In Nigeria, challenges in achieving universal health coverage and promoting health are evident due to low literacy rates, particularly in rural areas, and the lack of functional health literacy competencies among adults. Comprehensive solutions require collaborative efforts involving the government, healthcare professionals, non-governmental organizations, media, and the community.

Nigeria has taken steps towards achieving universal health coverage, evidenced by initiatives such as the Basic Healthcare Provision Fund in the 2014 National Health Act (signed in 2018) and the National Health Insurance Authority bill in 2022 (Olabanji, 2023). However, the country faces challenges in health literacy, with an adult literacy rate of 62%, 28% for those over 65, 59.5% for rural males, and 35.4% for rural females (FAWCO, 2021), emphasizing the need for improved health education and literacy. In a survey of rural women in southern Nigeria, functional literacy and health literacy were found to be inadequate, revealing shortcomings in functional, communicative, and critical health literacy competencies. Conversely, a study in metropolitan Lagos found that 74.8% of the surveyed population demonstrated health literacy (Ekoko, 2020). Factors influencing health literacy include internet use, knowledge of common antibiotics, English language proficiency, and broadcast media use (Kuyinu et al., 2020).

Stakeholder support and adoption are high in Nigeria, with a fairly strong regulatory environment, although scores are lower for health policies related to self-care and patient empowerment (Olabanji, 2023). The country's informal sector often relies on traditional and alternative medicinal practices, potentially driven by high poverty rates (40%) and an overburdened healthcare system (NBS, 2019). The decay of the primary healthcare system further contributes to long queues and unsatisfactory healthcare, prompting individuals to seek alternative means of care (Koce et al., 2019). Challenges include the proliferation of unregulated 'cures,' fake medicines, high costs, and ineffective supply chains (Garuba et al., 2009).

In conclusion, health knowledge is a valuable resource that empowers individuals to make informed decisions, actively participate in healthcare, and adopt behaviors promoting a healthier life. It is a lifelong learning process encompassing various components, including understanding the body, nutrition, exercise, mental health awareness, preventive measures, healthcare systems, medical conditions and treatments, health promotion and disease prevention, and holistic health (Matingwina, 2017; Colizzi et al., 2020). This comprehensive understanding is essential for fostering a healthier and more fulfilling life.

2.1.1.2 Health Promotion Activities

Health promotion activities encompass a diverse range of efforts and strategies designed to enhance the well-being and health of individuals and communities. These initiatives are geared towards preventing illness, promoting healthy behaviors, and creating supportive environments that contribute to overall health (Owoyemi, 2018). Within this broad framework, various activities and interventions contribute to the multifaceted field of health promotion. Common health promotion activities include health education, preventive services, community outreach and engagement, physical activity programs, nutrition programs, stress management, mental health promotion, tobacco and substance abuse prevention, workplace wellness programs, public awareness campaigns, school health programs, policy advocacy,

support for healthy aging, environmental health initiatives, and family and community support (Hamilton-Ekeke et al., 2020).

Health education involves disseminating information about healthy lifestyles, nutrition, physical activity, and the risks associated with certain behaviors, such as smoking and excessive alcohol consumption. Preventive services focus on providing vaccinations, screenings, and health check-ups to detect and address health issues early on. Community outreach and engagement entail understanding the needs and concerns of communities, involving them in the planning and implementation of health promotion programs. Physical activity programs encourage regular exercise through fitness classes, sports activities, and initiatives promoting walking or cycling, emphasizing the benefits of an active lifestyle. Nutrition programs provide information on healthy eating habits, conduct nutrition workshops, and promote access to nutritious foods. Stress management and mental health promotion offer resources and programs to manage stress, promote mental well-being, and reduce the stigma associated with mental health issues (Raghupathi & Raghupathi, 2022).

Tobacco and substance abuse prevention involve anti-smoking campaigns, resources for smoking cessation, and raising awareness about the risks of substance abuse. Workplace wellness programs implement health initiatives in the workplace, including ergonomic improvements, stress reduction programs, and fitness challenges. School health programs integrate health education into school curricula, promote physical activity, and ensure access to nutritious meals (Golechha, 2016). Public awareness campaigns utilize media, social networks, and communication channels to raise awareness about health issues and promote healthy behaviors. Policy advocacy involves championing policies that support health, such as smoke-free zones, healthy food initiatives, and urban planning that encourages physical activity. Support for healthy aging provides resources and support for older adults to maintain a healthy lifestyle, including regular health check-ups and social engagement. Environmental health initiatives promote a clean and safe environment, addressing pollution and other factors impacting health. Family and community support encourage strong social connections, family support, and community engagement as integral factors contributing to overall well-being (Hamilton-Ekeke & Moses, 2019).

2.1.1.3 Secondary Schools' Students Knowledge of Health Promotion Activities

Schools play a crucial role in disseminating health messages through curricula, making them essential environments for promoting health literacy among adolescents (Oparaeke & Bello, 2012). This significance stems from the fact that adolescence is a pivotal stage where many risk behaviors are established. Consequently, secondary schools are strategically positioned to cultivate a robust level of health literacy, defined in this research as the ability to utilize health information, especially knowledge acquired at the secondary school level, to make informed health decisions (Hamilton-Ekeke et al., 2020).

Within the realm of health promotion, attention is directed towards addressing the health education and promotion of children and young people. However, the knowledge of health promotion activities among secondary school students can vary, influenced by factors such as the education curriculum, the effectiveness of health education programs, and individual experiences. Efforts to enhance students' understanding of health promotion activities generally focus on integrating health education into the curriculum and fostering a holistic comprehension of well-being. The promotion of students' well-being is not only linked to reducing the prevalence of measurable unhealthy outcomes but also improving academic achievements. Notably, a significant portion of preventable diseases, such as heart diseases, strokes, type 2 diabetes, and certain cancers, can be addressed through health education, underscoring the importance of primary prevention and early health promotion (Pulimeno et al., 2020).

Secondary schools are instrumental in facilitating the development of health literacy among students, as this age group is exposed to various attitudes and habits while exploring new lifestyles and making new connections. Without proper guidance, students may adopt lifestyles that are detrimental to their health. Unhealthy habits reported in secondary schools, including low personal hygiene, drug abuse, alcohol consumption, and risky behaviors, may result from a lack of awareness of the potential consequences (Hamilton-Ekeke & Moses, 2019).

Health promotion activities in secondary schools, as outlined by the World Health Organization (WHO) in 1996, encompass a range of initiatives. These include providing a conducive physical environment for indoor and outdoor activities, organizing sports competitions, ensuring proper sanitation facilities to

reduce pollution, supplying portable water, inspecting school meals and environments, offering medical facilities such as first aid boxes and sick bays, employing trained medical personnel, forming health clubs, and conducting immunizations and screening tests for various health conditions (Samson-Akpan, 2011). Overall, these activities contribute to creating a healthy and supportive school environment that fosters the well-being of students.

2.1.2 Students' Well-Being

Students' well-being encompasses their overall health, happiness, and life satisfaction, spanning physical, mental, emotional, social, and academic dimensions. A positive and supportive environment is pivotal in fostering students' personal and academic flourishing (Kolbe, 2019). Positive psychology emphasizes optimal functioning across physical, social, mental, and emotional well-being, focusing on positive traits, constructive sensations, and the role of the environment and institutions in individual well-being growth (Wang et al., 2021). The multifaceted nature of learners' well-being includes the quality of school conditions and their emotional, subjective, and cognitive assessments of the school reality (Scrimin et al., 2016). Learners' well-being is an emotional state influenced by various factors inside and outside the classroom, with a positive impact on their learning cycle and outcomes (Zheng, 2022).

Educators play an indisputable role in influencing learners' well-being through various actions such as mindful conversations, thoughtful feedback, attentive listening, and revisiting classroom supervision for positive interactions (Mercer & Dörnyei, 2020). Creating a safe and compassionate classroom environment where learners feel heard is crucial, recognizing that educators' well-being has a ripple effect on their students. Educators should also prioritize their own well-being to effectively carry out their roles. To engage learners effectively, educators can adopt a dominant-cooperative learning model that allows autonomy while ensuring discipline when needed. Consistent participation in training and professional development is essential for managing and enhancing learners' well-being in the educational setting.

Moreover, educators can empower learners by addressing anxiety, managing conflict, fostering positive social interactions, and building strong relationships. Open communication with educators enables learners to express emotions and concerns, receive appropriate guidance, and foster successful interactions within and outside the classroom (Opre et al., 2018). Emotional stability and satisfying emotional support from educators contribute to effective learning (Zheng, 2022). Promoting students' well-being necessitates a comprehensive and collaborative approach involving educators, parents, and the broader community. By addressing various dimensions of well-being, schools not only contribute to academic success but also foster the development of resilient, well-rounded individuals prepared to navigate life's challenges.

2.1.3 Effects of Knowledge of Health Promotion Activities on Students' Well-being

The relationship between health knowledge, health promotion activities, and students' well-being is intricate and impactful. When students possess sufficient health knowledge and actively participate in health promotion activities, their overall well-being are positively affected (Sibeudu, 2022; Kolbe, 2019).

Pulimeno et al. (2018) emphasize the broader scope of promoting children's well-being beyond just healthy nutrition. They advocate for innovative, active approaches in schools that engage students in practical actions related to various aspects of a healthy lifestyle, such as balanced nutrition, physical exercise, and avoiding harmful substances. The World Health Organization (WHO) supports this idea, recommending the incorporation of health literacy into the core curriculum and fostering a health-promoting school environment (Kilgour et al., 2015). A comprehensive commitment to students' well-being by schools is expected to positively influence both children's behaviors and their families (Kolbe, 2019). Pulimeno et al. (2020) further explored the school as an ideal setting for promoting health and well-being among young people. They found that effective school-based preventive approaches should motivate students to internalize health knowledge personally and develop critical thinking about the consequences of risky behaviors. Educators are encouraged to receive adequate training on health topics and innovative approaches to effectively engage students in adopting healthy lifestyles (Sibeudu, 2022).

In a socio-cognitive perspective, Bandura (2004) suggests that schools should educate young people to take responsibility for their health from early childhood. This approach fosters the development of children's self-efficacy, enabling them to maintain healthy lifestyles throughout life and reap the benefits of acquired behavioral changes. Schools and families are urged to prioritize students' positive dimensions, such as self-esteem, happiness, and resilience, in a collaborative effort (Masten, 2001). Ahlstrand et al.

(2022) delved into health-promoting factors among students in higher education, specifically in healthcare and social work fields. Their study highlighted the importance of high-intensity exercise, no sleeping problems, and non-smoking for general health and health-promoting resources. This knowledge is crucial for planning universities with a salutogenic approach.

Health knowledge plays a pivotal role in promoting an understanding of the significance of regular exercise, balanced nutrition, and other healthy behaviors. Participation in health promotion activities, including physical education programs and sports, contributes to improved physical fitness, reduced risk of chronic diseases, and overall better physical health (WHO, 2022). Additionally, such activities often address stress management, emotional resilience, and mental health awareness, leading to reduced stress levels and improved emotional well-being (Singh et al., 2022). Empowered with health knowledge, students can make informed decisions about their lifestyles, including choices related to nutrition and substance use. Engaging in health promotion activities reinforces positive lifestyle choices, contributing to long-term benefits for overall well-being (Pulimeno et al., 2020). Preventive measures, such as vaccinations and health screenings, are better understood through health education, aiding in early detection and management of health issues (Kisling & Das, 2023).

Furthermore, health education often encompasses interpersonal skills, communication, and building positive relationships. Students knowledgeable in these areas and actively participating in related activities experience enhanced social well-being and a sense of belonging within the school community (Zheng, 2022). The cultivation of healthy habits early in life is a significant outcome of health knowledge and participation in health promotion activities. These habits, established during formative years, are more likely to persist into adulthood, promoting lifelong well-being (Rippe, 2018). Empowering students to take an active role in managing their health through education and promotion activities positively influences their overall well-being, fostering a proactive and positive approach to health (Pulimeno et al., 2020).

Moreover, health knowledge and promotion activities contribute to addressing health disparities, ensuring all students have access to essential health information and resources, thereby supporting the well-being of diverse student populations (Pulimeno et al., 2020). Importantly, the cumulative effects of health knowledge and promotion activities depend on the quality of educational programs, community support, and individual factors. Therefore, a comprehensive and holistic approach to health education and promotion is crucial for maximizing the positive impact on students' well-being (Sibeudu, 2022).

2.2 Theoretical Review

This study is grounded in several theoretical frameworks that collectively provide a comprehensive lens for understanding and addressing health promotion in secondary schools. The chosen theoretical frameworks are as follows: Community Mobilization Theory, Theory of Urbanization, Health Promotion Analysis Model, Modified Pender's-Ecological Model, and Health Belief Model.

2.2.1 Community Mobilization Theory

Developed by Paolo Freire in 1970 (Freire, 1977), Community Mobilization Theory serves as a foundational framework for encouraging active community participation in projects. Emphasizing empowerment, community competence, participation, and the selection of relevant issues with critical consciousness, this theory, as highlighted by Murphy (2005), encourages the development of communities capable of evaluating and resolving health problems. In the context of this study, the application of this theory involves planning and implementing health promotion programs with students. This approach enhances project ownership and self-reliance, addressing challenges such as building group consensus around pressing issues like sanitation in dormitories. Students can take action through initiatives like petitioning authorities for improved facilities or mobilizing local resources for self-help projects.

2.2.2 Theory of Urbanization

First described by Mabogunje in 1968 (Sule, 2010), the Theory of Urbanization provides insights into the concentration of people in specific areas. According to this theory, the concentration of individuals is driven by the generation of surplus, essential for the livelihood of the community. This surplus includes food, medical facilities, and the specialization of functions. Sule (2010) further outlines centripetal and centrifugal forces at play. Centripetal forces attract individuals to urban centers due to factors such as employment opportunities, higher pay, better services, and conducive environment. On the other hand, centrifugal forces act as push factors, compelling individuals to seek better conditions, salaries, job opportunities, security, and education elsewhere. This model is particularly relevant to the study as

centrifugal forces contribute to subject specialists leaving rural areas for urban centers, where social support services are more readily available. Conversely, centripetal forces concentrate subject specialists in urban areas, hindering their transfer to rural regions. Consequently, the expectation is that health promotion activities will be more prevalent in urban secondary schools compared to their rural counterparts.

2.2.3 Health Promotion Analysis Model (HELPSAM)

The Health Promotion Analysis Model (HELPSAM), developed by the World Health Organization during the Sundsvall Conference in 1991 (WHO, 2010), constitutes a crucial framework for understanding and implementing health promotion strategies. Comprising seven key strategies for creating supportive environments for health, HELPSAM includes policy development, laws and regulations, reorienting organizations, building alliances and creating awareness, and enabling and mobilizing/empowering (Taylor et al., 2000).

Policy development, a cornerstone of HELPSAM, involves a range of complementary measures across different societal levels to support health promotion activities. In the context of this study, the analysis of health promotion activities is based on the examination of written or unwritten policies in both urban and rural secondary schools. Policies play a pivotal role in influencing health promotion activities, and Taylor et al. (2000) emphasize their significance as one of the most important strategies for creating a supportive environment for health. The Health Promotion Policy (2006) in Nigeria provides guidelines for positive outcomes, such as empowerment for health action and increased community involvement. The absence of health promotion policies at various levels hampers coordinated health promotion activities. Thus, schools should formulate and implement health promotion policies covering various aspects such as nutrition, exercise, prevention of HIV/AIDS, elimination of bullying and violence, and the enhancement of the physical and psychosocial environment.

Public health laws and norms, applicable to schools as social institutions, guide actions in cases of communicable disease outbreaks, food safety, environmental health, and school registration (Lucas & Gilles, 2003). The study will analyze how schools apply these laws to protect students against environmental hazards, HIV/AIDS transmission, and inadequate provision of safe food. Non-compliance with public health laws can endanger the health of students and staff, emphasizing the importance of adherence to these regulations.

Reorienting organizations toward sustainable development and supporting public health is essential. Health-promoting schools serve as examples of this reorientation, necessitating awareness and the adoption of health promotion strategies to improve the health of staff and students. The study will analyze strategies for preventing HIV/AIDS, addressing environmental hazards, promoting nutrition, encouraging exercise, and providing further education on health promotion.

Advocacy for improved health involves actions at different societal levels based on health needs. Schools need to engage in lobbying through mass media, pressure groups, and other channels to influence policy makers to adopt healthy public policies and enforce laws that promote health among students and staff. Building alliances and creating awareness require collaboration with non-governmental organizations and Parent-Teacher Associations to address issues such as drug misuse, bullying, violence, and improved access to nutrition.

Enabling organizations or individuals involves providing basic prerequisites to support health-conducive behavior and product development. This includes offering facilities for exercise, sanitation, safety measures, and training opportunities for staff and students to stay updated on health promotion. Lack of an enabling environment can result in a scarcity of health-promoting activities, leading to increased incidents of accidents, HIV/AIDS, and obesity. Mobilizing and empowering focus on active involvement and participation of those affected by public health problems. Schools are encouraged to involve students and staff in planning and implementing health promotion programs for success, aligning with the principles highlighted in the Alma Ata Declaration (Lucas & Gilles, 2003).

2.2.4 Modified Pender's–Ecological Model (PEM)

The Modified Pender's Ecological Model (PEM), developed by Samson-Akpan in 2002, serves as a comprehensive framework that synthesizes categories of factors from Pender's health promotion and ecological model. Pender's model encompasses intra-personal, inter-personal, institutional, community, and public policy factors (Samson-Akpan, 2013), while also introducing cognitive perceptual and modifying factors. The Modified Pender's Ecological Model integrates these components into four distinct parts:

Cognitive Perceptual factors, Modifying factors, Participating in health-promoting behavior, and Ecological factors.

Cognitive perceptual factors within the Modified PEM include key elements such as the perception of the importance of health, perceived control of health, perceived health efficacy, definition of health, perceived health status, perceived benefits of health-promoting behavior, and perceived barriers to health-promoting behavior. These factors, shaped by modifying factors, collectively influence the likelihood of participating in health-promoting behavior.

Modifying factors, as identified by the Modified PEM, encompass demographic characteristics, biological characteristics, interpersonal influence, situational factors, and behavioral factors. When cues to action or triggers are present, these modifying factors interact with cognitive perceptual factors, further influencing participation in health-promoting behavior. The likelihood of participating in health-promoting behavior is contingent not only on cognitive perceptual and modifying factors but also on ecological factors. This aspect, integrated with Pender's health promotion model, includes intra-personal factors, inter-personal factors, community factors, and public policy. Samson-Akpan (2011) emphasized that the integration of these two influential models sheds light on individual and social factors influencing health-promoting behavior. The PEM, applicable to individuals, groups, communities, or countries, reconciles conflicting views on health promotion—namely, individual lifestyle and the broader sociopolitical influences affecting health and diseases.

In the current study, the Modified PEM is employed to identify modifying factors at the individual level, encompassing demographic characteristics (age and sex), interpersonal influences, situational factors, and behavioral factors. This approach is grounded in the belief that these factors impact cognitive perceptual elements, subsequently enhancing the likelihood of participation in health-promoting activities. Beyond individual factors, the analysis of health promotion activities is also based on ecological factors at the school level, including intra-personal, inter-personal, community (school), and public policy (health promotion policy) factors. This comprehensive approach allows for a factor analysis of health promotion activities within schools, treating them as integral components of a broader community, and facilitates a comparative assessment between urban and rural secondary schools.

2.2.5 Health Belief Model

The Health Belief Model, introduced by psychologist Irving Rosenstock in the 1950s, is a widely recognized conceptual framework in the field of health behavior (Murphy, 2005). Developed to elucidate health-related behaviors, this model focuses on an individual's perception of the threat of a health problem and their appraisal of recommended behaviors for preventing or managing that problem. Rosenstock identified several key concepts influencing the likelihood of seeking preventive health care, including perceived susceptibility, perceived benefit of action, perceived barriers to action, cues to action, and self-efficacy (Murphy, 2005). These elements collectively contribute to an individual's readiness to act or participate in health-promoting activities.

The Health Belief Model holds significance for this study as it underscores that the right combination of perceptions determines an individual's readiness to engage in health-promoting activities. In the context of secondary schools, health promotion messages conveyed through mass media, peer education, films, and field trips serve as cues to action, translating individual readiness into overt behavior. In secondary schools, health promotion messages play a crucial role in overcoming detrimental health behaviors such as unhealthy eating habits, smoking, and drug misuse. These negative health behaviors not only pose threats to health but also have the potential to impede educational achievements. For example, an adolescent smoker, who may not believe in their ability to quit independently, can be provided with specific information on proven cessation methods and encouraged to participate in a supportive smoking cessation program. This proactive intervention aims to prevent the development of conditions like coronary heart disease and cancer, which could otherwise disrupt educational attainment.

In summary, the Health Belief Model serves as a valuable framework for understanding and addressing health-related behaviors in secondary schools. By recognizing the influence of perceptions on individual readiness to engage in health-promoting activities, the model highlights the importance of targeted health promotion messages to facilitate positive behavioral changes among students. This approach is essential for mitigating the impact of negative health behaviors on both health outcomes and academic success.

2.3 Empirical Literature Review

Bosede et al. (2023) conducted a descriptive cross-sectional study to evaluate the quality of implementation of the school health programme (SHP) in Ondo State, Southwest Nigeria, from the perspective of the National School Health Policy (NSHPo) of 2006. Utilizing an observational checklist, the study found that none of the schools in the study area adhered to or employed the NSHPo for their SHP. While 36% of the schools demonstrated good quality of implementation (QoI) of the SHP, no significant differences were observed between private and public schools or between schools in rural and urban areas ($p>0.05$). The study recommended increased awareness and utilization of the NSHPo by relevant stakeholders in the health and education sectors to enhance the SHP's implementation.

Adebayo et al. (2023) explored the history, existing policy, and implementation status of school health in Nigeria, identifying gaps and proposing recommendations for review. The study involved a review of school health documents and analysis of findings from a stakeholder's workshop. It revealed that school health is crucial for the holistic well-being of the school population, with dual roles in promoting health and adapting schools as settings for health-promoting activities. Despite being categorized into pre-policy, policy, and post-policy phases, the Nigerian SHP has been poorly implemented over the years, displaying multiple policy gaps. The study concluded by emphasizing the urgent need for a review of the school health policy in Nigeria to enhance community awareness and facilitate effective implementation.

Faleke et al. (2022) investigated the perceived effects of school health programs among secondary school students in Ogun East senatorial district. Using a simple random sample technique and a descriptive survey research design, the study collected data from 300 secondary school students in Ogun State. The findings, analyzed through chi-square inferential statistics, revealed that improving the school environment, nutrition and food programs, counseling and psychological services, health policies, and health services were significantly perceived as effects of school health programs among secondary school students in Ogun State.

Hamilton-Ekeke et al. (2020) explored health literacy in the promotion of wellness among secondary school students in Bayelsa State, Nigeria. The study, guided by three research questions and one hypothesis, employed a survey design with 260 senior secondary three (SS3) students selected through a simple random sampling technique. The results indicated fair knowledge of drug abuse among participants, but the hypothesis testing revealed no significant relationship between knowledge and application. The study concluded by emphasizing the importance of applying the knowledge acquired about drug abuse to practice, particularly during adolescence, as it represents a cost-effective approach to enhancing healthy child development and addressing health early in life.

Ilesanmi et al. (2018) conducted a quasi-experimental design study to assess the knowledge and perceptions of asthma among secondary school students in Ile-Ife, Nigeria, and to evaluate the impact of an asthma health education program. Using a pre-tested 71-item questionnaire, data on knowledge and perceptions were collected before and after the intervention. The results indicated poor initial perceptions and knowledge of asthma among the students. However, following the health education program, there was a significant improvement in both knowledge and perceptions of asthma among the intervention group. Furthermore, the study demonstrated a sustained positive effect over time, with significant changes observed at 1 week, 3 weeks, and 6 weeks post-intervention. The conclusion drawn was that health educational interventions have a substantial positive impact on asthma knowledge and perceptions among secondary school students in Ile-Ife, Osun State, South-west Nigeria.

Ngwu and Ekpiken-Ekanem (2017) employed a survey research design to investigate the impact of health education on health knowledge among secondary school students in Cross River State, Nigeria. A structured questionnaire was used to collect data from 500 students, and the Pearson Product Moment Correlation Coefficient (r) was employed for data analysis. The findings revealed a significant relationship between health knowledge and health education among senior secondary school students in Cross River State. This suggested that the introduction and implementation of health education programs in secondary schools contributed significantly to increased knowledge about health-related issues among students, fostering proper healthy living essential for societal development.

Storey et al. (2016) explored the essential conditions for implementing comprehensive school health to bring about changes in school culture and improvements in students' health behaviors. Utilizing statistical tools, the study found a relationship between students' health and well-being, emphasizing that students' health improves overall well-being. The

study advocated for a holistic approach involving schools, parents, and the community, emphasizing the importance of partnerships, advisory councils, and collaboration with stakeholders to enhance support for school health programs. By actively involving parents and utilizing community services and resources, schools can better meet the health needs of students.

3. Research Methodology

3.1 Research Design

This study will be *ex-post facto* research design, incorporating primary survey strategies within three selected secondary schools at Owo local government in Ondo State. The survey will target secondary schools, government teachers, PTA teachers, and youth corp members in each of chosen schools, which will include Imade College Owo, St. Louis Grammar School Owo, and Owo High School - all situated in Ondo State. The choice of this research design is deemed appropriate because it enables the examination of the knowledge of health promotion activities on selected secondary schools' students in Owo, Ondo State, Nigeria. It will facilitate the collection of pertinent data and will offer insights into the specific effects of knowledge of health promotion activities on selected secondary schools' students. The design also will allow for the use of structured questionnaires and observation as data collection methods.

3.2 Source of Data

Data will be collected from a primary source by distributing copies of questionnaire to the designated respondents. The copies of structured questionnaire will be given to the targeted secondary schools government teachers, PTA teachers, and corp. members in each of chosen schools located in Owo, Ondo State, Nigeria. The choice of selected school's premises on proximity, convenience, ease possible accessibility to data to address various hypotheses being that Imade College Owo represents boy schools; St. Louis Grammar School stands in for girl schools while Owo High School is a proxy for co-educational secondary schools.

3.3 Population of the Study

The study's population consists of 228 from suggested state government-owned secondary schools at Owo city, in Ondo State, Nigeria. This information will be sourced from the personnel register of each secondary school at as year 2023. The state government-owned secondary schools at Owo city, in Ondo State include Imade College Owo, St. Louis Grammar School Owo, and Owo High School all situated in Ondo State. These schools suggested are based on their proximity to the researcher, the availability of data, and convenience as at above.

Table 3.1 Summary of Population of the Study

S/No	Institution	Categories	Staff No.
1	Imade College Owo	Govt. Teachers	45
2	Imade College Owo	PTA Teachers	26
3	Imade College Owo	Corp Members	19
4	St. Louis Grammar School Owo	Govt. Teachers	43
5	St. Louis Grammar School Owo	PTA Teachers	25
6	St. Louis Grammar School Owo	Corp Member	1
7	Owo High School	Govt. Teachers	45
8	Owo High School	PTA Teachers	6
9	Owo High School	Corp Members	18
	Total		228

Source: *Researchers' compilation, (2023)*

3.4 Sample Size and Sampling Techniques

The sample for this study will consist of three suggested state government-owned secondary schools at Owo city, in Ondo State namely Imade College Owo, St. Louis Grammar School Owo, and Owo High School all situated in Ondo State as listed in the table above. Respondents from these institutions will be selected using the simple random sampling technique. The sample size for this study is 144 respondents, determined using Taro Yamane's formula.

Figure 1: Taro Yamane (1973) formula:

$$n = \frac{N}{1 + N(e)^2}$$

Source: Yamane (1967)

Where:

N= 228, e= 0.05

$$n = \frac{228}{1 + 228(0.05)^2}$$

$$n = 145 \text{ (approximately)}$$

	Selected Institutions	Categories	Population	Proportion	S/size
1	Imade College Owo	Govt. Teachers	45	0.19737	29
2	Imade College Owo	PTA Teachers	26	0.11404	17
3	Imade College Owo	Corp Members	19	0.08333	12
4	St. Louis Grammar School Owo	Govt. Teachers	43	0.1886	27
5	St. Louis Grammar School Owo	PTA Teachers	25	0.10965	16
6	St. Louis Grammar School Owo	Corp Member	1	0.00439	1
7	Owo High School	Govt. Teachers	45	0.19737	29
8	Owo High School	PTA Teachers	6	0.02632	4
9	Owo High School	Corp Members	18	0.07895	11
	Total		**228**		**146**

Source: *Researcher's Computation (2024)*

3.5 Research Instrument

This study will utilize a questionnaire as the research instrument. The questionnaires will be distributed in various selected secondary schools. The questionnaire will comprise three sections. Section A will be dedicated to collecting personal information from the respondents, including age bracket, gender, and years of experience. Section B and C include the research objectives and associated research questions. The research questions will be prepared using the five-point Likert Scale form (Strongly Agree (SA) =5; Agree (A) =4; Strongly Disagree (SD) = 3; Disagree (D) = 2; Neutral (N) =1). The questionnaires for administration to respondent will be accompanied with introductory letter.

3.6.1 Administration of Research Instrument

In this study, a total of 146 self-administered questionnaires will be distributed to 146 respondents across the four suggested government secondary schools at Owo in Ondo State, Nigeria.

3.6.2 Validity and Reliability of the Research Instrument

To ensure the questionnaire's validity, several steps will be taken. Firstly, copies of the questionnaire will be provided to my supervisor, as well as professionals. They will critically evaluate the alignment of the research questions with the study's objectives.

3.7 Data Analysis Techniques

This study will employ various analytical methods, including descriptive statistics, a correlation matrix. Descriptive statistics encompasses frequency distribution, mean, and standard deviation calculations for each item in the questionnaire. Calculating the mean helps determine the average level of respondents' responses to specific questions.

3.8 Model specification

In this study, data econometric techniques was utilized to assess the significance of relationship between independent variables (Students' Health (SH), which will be broken down into Physical Well-being (PWB), Health Wellness (HWS), Mental Well-being (MWB)) and the dependent variable, Knowledge of Health Promotion Activities (KHPA), this is split to Knowledge of Health Promotion Activities in only male school (KHPAM), Knowledge of Health Promotion Activities in only female school (KHPAF), and Knowledge of Health Promotion Activities in coeducational school (KHPAC), The model for this study was developed using simple regression analysis, and it is represented as follows:

KHPA =f(SH)---------- (i)

Where,

KHPA = Knowledge of Health Promotion Activities

SH = Students' Health

Decomposed

KHPA = f (PWB, HWS, MWB) ----------(ii)

$KHPA = \beta 0 + \beta_1 PWB + \beta_2 HWS + \beta_3 MWB + \varepsilon t$ ---------- (iii)

Model I

$KHPAM = \beta 0 + \beta_1 PWB + \beta_2 HWS + \beta_3 MWB + \varepsilon t$ ---------- (iv)

Model II

$KHPAF = \beta 0 + \beta_1 PWB + \beta_2 HWS + \beta_3 MWB + \varepsilon t$ ---------- (v)
Model III
Where,
PWB = Physical Well-being
HWS = Health Wellness
MWB = Mental Well-being
Ɛt= Error Term
t= time
β_1, β_3 = Co-efficient of associated variables.
This study's *Apriori* expectations are positive between explanatory variables and independent variable.

4. Data Presentation and Analysis

4.1 Demographic Respondents Analysis

Table 1: DEMOGRAHPIC RESPONDENT ANALYSIS

S/N	QUESTIONS	OPTIONS	RESPONDENT
1	Gender		
		Male	66
		Female	74
		TOTAL	140
2	Categories	Govt. Teachers	85
		PAT Teachers	31
		Corp Member	24
		TOTAL	140
3	Years of experience	Below- 5	42
		6- 10	75
		Above 10	23
		TOTAL	140

(Author's Compilation, 2024)

Table 4.3 Gender Distribution of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	M	66	47.1	47.0	47.0
	F	74	52.9	53.0	100.0
	Total	200	100.0	100.0	

Source: Field Survey, 2024

Table 4.3 shows the distribution of respondents by gender, showing that 74 respondents (52.9%) were female and 66 respondents (47.1%) were male. The data reveals a slight predominance of male respondents, constituting the majority of the sample. The significance of the gender distribution data presented in Table 4.3 lies in the nearly equal representation of male and female respondents, albeit with a slight numerical advantage for females. This balance suggests a fair representation of both genders, potentially enhancing the validity and reliability of the study's outcomes. Furthermore, it implies that the perspectives and experiences of both male and female participants are likely to be adequately captured, contributing to a more comprehensive understanding of the research subject.

Table 4.4: Categories of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Govt	85	60.7	61	61
PAT	31	22.2	22	83
Corp	24	17.1	17	100.0
Total	140	100.0	100.0	

Source: Field Survey, 2024

Table 4.4 displays the categories of the respondents, indicating their distribution. Among the 140 respondents, 85 (60.7%) were from the Government teachers, PAT teachers were 31 representing 22.2% while 24 (17.1%) were from the Corp members. The interpretation of this data suggests that the information necessary for analyzing the data was provided by individuals who are knowledgeable and experienced in the realm of education and promotional activities within the chosen secondary schools. This enhances the validity and reliability of the information gathered, thereby allowing for dependable conclusions to be drawn.
Additionally, it underscores the importance of engaging stakeholders from various categoriess to ensure a comprehensive understanding of the issues at hand and to facilitate holistic decision-making processes.

Table 4.5: Years of experience of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Below- 5yrs	42	30.0	30.0	21.0
6 – 10 yrs	75	53.6	53.6	83.6
Above 10yrs	23	16.4	16.4	100.0
Total	140	100.0	100.0	

Source: Field Survey, 2024

Table 4.5 illustrates the distribution of respondents based on their years of experience. Out of the 140 respondents: 42 (30.0%) have less than 5 years of experience, 75 (53.6%) have between 6 to 10 years of experience, and 23 (16.4%) have more than 10 years of experience. The majority of respondents (70%) possess 6 or more years of experience in their respective fields. A significant portion (41.5%) of respondents has over 10 years of experience, indicating a notable presence of seasoned professionals in the sample. Conversely, a smaller proportion (21%) has less than 5 years of experience.

The data suggests that the sample predominantly comprises experienced individuals, with over three-quarters possessing 6 or more years of experience. This implies that the insights and perspectives gathered from the survey are likely influenced by the knowledge and expertise of seasoned professionals in their respective domains. Decision-makers should consider this diverse range of experiences when interpreting the survey findings. Recognizing the varying levels of expertise and perspectives can aid in formulating policies, strategies, or interventions that cater to the needs and preferences of both experienced and less-experienced individuals in the respective fields.

Analyses of Responses of Respondents

Tables 4.6 to 4.9 show the responses of respondents to the structured questionnaire. These are arranged according to dependent and independent variables examined in this study.

Table 4.7 Knowledge of health promotion activities on the students' well-being in boys' schools

SN	Effect of knowledge of health promotion activities on the students' well-being in boys' schools	SA	A	D	SD
1	Knowledge of health promotion activities should be encouraged in secondary schools	30(58%)	18(35%)	4(7%)	0(0%)
2	The health promotion activities at my school have improved our students' physical well-being.	20 (38%)	28(53.5%)	3(6%)	1(2.5%)
3	I believe our students are more knowledgeable about health and wellness due to the activities provided at our school.	18(34.5%)	26(49%)	2(4%)	6(12%)
4	The health promotion activities at our school have positively influenced our students' mental well-being.	26(51%)	21(39.5%)	3(5.5%)	2(4%)

Source: Author's Computation, 2024.

Table 4.7 displays the findings from a survey regarding effect of knowledge of health promotion activities on the students' well-being in boys' schools. Among the respondents, 30 (58%) strongly agreed that knowledge of health promotion activities should be encouraged in secondary schools, and 18 (35%) agreed while 4(7%) disagreed. Similarly, among the respondents, 20 (38%) strongly agreed that the health promotion activities at school have improved their students' physical well-being, and 28 (53.5%) agreed. Conversely, 3 (6%) disagreed, and 1 (2.5%) strongly disagreed. Regarding effect of knowledge of health promotion activities on the students' well-being in boys' schools, 18 (34.5%) strongly agreed that it has been positive, with 26 (49%) respondents agreeing. However, 2 (4%) disagreed, and 6(12%) strongly disagreed.

Concerning the health promotion activities at school have positively influenced students' mental well-being. , 26 (51%) strongly agreed , and 21 (39.5%) agreed. In contrast, 3 (5.5%) disagreed, and 2(4%) strongly disagreed.

Table 4.8 Knowledge of health promotion activities on the students' well-being in girls' school

SN	Impact of knowledge of health promotion activities on the students' well-being in girls' school	SA	A	D	SD
1	Knowledge of health promotion activities should be encouraged in secondary schools	23(52%)	20(45%)	1(3%)	0(0%)
2	The health promotion activities at my school have improved our students' physical well-being.	21(46%)	22(51.5%)	1(2.5%)	0(0%)
3	I believe my students are more knowledgeable about health and wellness due to the activities provided at my (girls' school) school.	30(71%)	6(11%)	3(8%)	5(10%)
4	The health promotion activities at my school have positively influenced my students' mental well-being.	14(32%)	26(58.5%)	3(6%)	1(3.5%)

Source: Author's Computation, 2024

Table 4.8 presents the findings from a survey on impact of knowledge of health promotion activities on the students' well-being in girls' school. In response to the first questionnaire, which asserts that knowledge of health promotion activities should be encouraged in secondary schools, 23 respondents (52%) strongly agreed (SA), while 20 respondents (45%) agreed (A). Conversely, 1 respondent (3%) disagreed (D), and 0 respondent (0%) strongly disagreed (SD). Regarding the second questionnaire, which suggests that the health promotion activities at my school have improved our students' physical well-being; 20 respondents (46%) strongly agreed, with 22 respondents (51.5%) agreeing. However, 2 respondents (2.5%) disagreed, and nill respondent (0%) strongly disagreed. Concerning the Impact of knowledge of health promotion activities on the students' well-being in girls' school, 30 respondents (71%) strongly agreed that their students are more knowledgeable about health and wellness due to the activities provided at (girls' school) schools. Additionally, 6 respondents (11%) agreed, but 3 respondents (8%) disagreed, and 5 respondents (10%) strongly disagreed. Furthermore, 14 respondents (32%) strongly agreed that the health promotion activities at schools have positively influenced their students', with 26 respondents (58.5%) agreeing. Nonetheless, 3 respondents (6%) disagreed, and a respondent (3.5%) strongly disagreed.

Table 4.9 knowledge of health promotion activities on the students' well-being in coeducational schools

SN	Effect of knowledge of health promotion activities on the students' well-being in coeducational schools	SA	A	D	SD
1	Knowledge of health promotion activities should be encouraged in secondary schools	35(80%)	6(15%)	3(5%)	0(0)
2	The health promotion activities at my school have improved my physical well-being of both male and female students.	15(33%)	24(56%)	3(8.5%)	2(2.5%)
3	I believe both genders are more knowledgeable about health and wellness due to the activities provided my coeducational school.	22(50.5%)	16(36%)	3(8.5%)	3(5%)
4	The health promotion activities at my school have positively influenced my mental well-being of both female and male students	12(28%)	22(50%)	8(19.5%)	2(2.5%)

Source: Author's Computation, 2024.

Table 4.9 outlines the findings from a survey regarding of knowledge of health promotion activities on the students' well-being in coeducational schools. In response to the first question, which suggests that knowledge of health promotion activities should be encouraged in secondary schools, 35 respondents (80%) strongly agreed, while 6 respondents (15%) agreed. Conversely, 3 respondents (5%) disagreed. This indicates that a majority of respondents are familiar with promotion activities in secondary school, with over 95% either agreeing or strongly agreeing. 15 respondents (33%) strongly agreed that the health promotion activities at my school have improved my physical well-being of both male and female students; While 24 respondents (56%) agreed. Conversely, 3 respondents (8.5%) disagreed, and 2 respondents (2.5%) strongly disagreed. This indicates a significant portion of individuals in the coeducational schools agreed that that the health promotion activities at my school have improved my physical well-being of both male and female students.

Regarding the third question, which assesses that both genders are more knowledgeable about health and wellness due to the activities provided the coeducational school, 22 respondents (50.5%) strongly agreed, with 16 respondents (36%) agreeing. However, 3 respondents (8.5%) and 3 respondents (5%) strongly disagreed. Here, a majority also agreed that both genders are more knowledgeable about health and wellness due to the activities provided the coeducational school. though not as overwhelmingly as the previous statement. Question four states that the health

promotion activities at coeducational school have positively influenced the mental well-being of both female and male students. 12 respondents (28%) strongly agreed, while 22 respondents (50%) agreed. In contrast, 8 respondents (19.5%) disagreed, and 2 respondents (2.5%) strongly disagreed. A significant portion of respondents (78%) was in agreement that the health promotion activities at coeducational school have positively influenced the mental well-being of both female and male students in the school.

Data Analysis

4.1.1 Descriptive Statistics- MODEL I

Table 4.1

	KHPAM	PWB	HWS	MWB
Mean	3.500000	3.269231	3.076923	3.365385
Median	4.000000	3.000000	3.000000	3.500000
Maximum	4.000000	4.000000	4.000000	4.000000
Minimum	2.000000	1.000000	1.000000	1.000000
Std. Dev.	0.641689	0.660225	0.925587	0.767702
Skewness	0.899195	0.754732	1.051341	-1.246454
Kurtosis	2.741497	3.195364	3.470343	3.467916
Jarque-Bera	7.152236	8.032654	10.05873	18.13364
Probability	0.027984	0.018019	0.016543	0.016115
Sum	182.0000	170.0000	160.0000	175.0000
Sum Sq. Dev.	21.00000	22.23077	43.69231	30.05769
Observations	52	52	52	52

Source: Author's computation (2024)

Table 4.1 contains descriptive statistics of the study variables. Relevant to the present study are the mean, skewness, kurtosis and the J-B statistics (and its probabilities). For the model 1, the average (mean) values of Knowledge of Health Promotion Activities for male school (KHPAM), Physical Well-Being (PWB), Health Wellness (HWS), and Mental Well-Being (MWB) are 3.500000, 3.269231, 3.076923 and 3.365385 respectively. Many of the variables are skewed to the right of the mean. KHPAM, PWB and HWS have skewness coefficients 0.899195, 0.754732 and 1.051341 respectively except for MWB with skewness coefficient of -1.246454. All the skewness coefficients are not far from the zero. All used variables (KHPAM, PWB, HWS and MWB) have kurtoses approximately 3, signifying that the variables are normally distributed; This scenario is further confirmed by the JB statistics and their respective probabilities. There are 55 observations in all.

4.1. 2 Pearson Correlation Matrix Analysis – MODEL I

Table 4.2

	KHPAM	PWB	HWS	MWB
KHPAM	1.000000			
PWB	0.786796	1.000000		
HWS	0.792317	0.763863	1.000000	
MWB	0.795561	0.746611	0.742688	1.000000

Source: Author's computation (2024)

Table 4.2 shows Pearson correlation matrix for the variables as contained in the analysis. The correlation coefficients between dependent variable (KHPAM) and independent variables: KHPAM, PWB, HWS and MWB are strong positive correlation coefficient as shown in Table 4.2. Positive strong correlation between (KHPAM) and (PWB, HWS and MWB) suggests that when one of these variables increases, the other tends to increase as well, and the relationship is very strong.

Descriptive Statistics- MODEL II

Table 4.3

	KHPAF	PWB	HWS	MWB
Mean	3.477273	3.409091	3.386364	3.204545
Median	4.000000	3.000000	4.000000	3.000000
Maximum	4.000000	4.000000	4.000000	4.000000
Minimum	1.000000	2.000000	1.000000	1.000000
Std. Dev.	0.628347	0.583421	1.039139	0.667503
Skewness	1.336273	0.352447	0.454084	-0.722420
Kurtosis	6.169831	2.246865	3.225033	3.265629
Jarque-Bera	31.51561	1.950826	16.22152	6.763867
Probability	0.000000	0.377037	0.020300	0.133982
Sum	153.0000	150.0000	149.0000	141.0000
Sum Sq. Dev.	16.97727	14.63636	46.43182	19.15909
Observations	44	44	44	44

Source: Author's computation (2024)

Table 4.3 contains descriptive statistics of the study variables. Relevant to the present study are the mean, skewness, kurtosis and the J-B statistics (and its probabilities). For the model II, the average (mean) values of Knowledge of Health Promotion Activities for female school (KHPAF), Physical Well-Being (PWB), Health Wellness (HWS), and Mental Well-Being (MWB) are 3.477273, 3.409091, 3.386364 and 3.204545 respectively. Many of the variables are skewed to the right of the mean. KHPAM, PWB and HWS have skewness coefficients 1.336273, 0.352447 and 0.454084 respectively except for MWB with skewness coefficient of -0.722420. Three out of four skewness coefficients are not far from the zero. Three out of four used variables (PWB, HWS and MWB) have kurtoses approximately 3, signifying that the variables are normally distributed; have are platykurtic with kurtoses less than 3 (2.005441, 2.912855 and 2.612677 respectively) and are normally distributed. However, KHPAM is leptokurtic as its kurtosis is greater than 3 with coefficients of 6.169831. This scenario is further confirmed by the JB statistics and their respective probabilities. There are 44 observations in all.

4.1.4 Pearson Correlation Matrix Analysis – MODEL II

Table 4.4

	KHPAF	PWB	HWS	MWB
KHPAF	1.000000			
PWB	0.750646	1.000000		
HWS	0.672677	0.653859	1.000000	
MWB	0.759877	0.795318	0.688081	1.000000

Source: Author's computation (2024)

Table 4.4 reveals Pearson correlation matrix for the variables as contained in the analysis. The correlation coefficients between dependent variable (KHPAF) and independent variables: KHPAM, PWB, HWS and MWB are strong positive correlation coefficient as shown in Table 4.4. Positive strong correlation between (KHPAM) and (PWB, HWS and MWB) 0.750646, 0.672677 and 0.759877 respectively, suggests that when one of these variables increases, the other tends to increase as well, and the relationship is very strong.

Descriptive Statistics- MODEL III

Table 4.5

	KHPAC	PWB	HWS	MWB
Mean	3.727273	3.181818	3.295455	3.000000
Median	4.000000	3.000000	3.500000	3.000000
Maximum	4.000000	4.000000	4.000000	4.000000
Minimum	2.000000	1.000000	1.000000	1.000000
Std. Dev.	0.585230	0.755529	0.878147	0.806947
Skewness	-2.002014	-0.962910	-0.234146	-0.537243

Kurtosis	5.796982	3.230123	3.492975	2.918367
Jarque-Bera	43.73482	9.573639	12.63143	2.128835
Probability	0.000000	0.058339	0.031808	0.344929
Sum	164.0000	140.0000	145.0000	132.0000
Sum Sq. Dev.	14.72727	24.54545	33.15909	28.00000
Observations	44	44	44	44

Source: Author's computation (2024)

Table 4.5 contains descriptive statistics of the study variables. Relevant to the present study are the mean, skewness, kurtosis and the J-B statistics (and its probabilities). For the model III, the average (mean) values of Knowledge of Health Promotion Activities for female school (KHPAF), Physical Well-Being (PWB), Health Wellness (HWS), and Mental Well-Being (MWB) are 3.727273, 3.181818, 3.295455 and 3.000000 respectively. All of the variables are skewed to the left of the mean. KHPAC, PWB, HWS and MWB have skewness coefficients -2.002014, -0.962910, -0.234146 and -0.537243. Three out of four skewness coefficients are not far from the zero. Three out of four used variables (PWB, HWS and MWB) have kurtoses approximately 3, signifying that the variables are normally distributed except for KHPAC, are normally distributed. However, KHPAM is leptokurtic as its kurtosis is greater than 3 with coefficients of 5.796982. This scenario is further confirmed by the JB statistics and their respective probabilities. There are 44 observations in all.

4.1.6 Pearson Correlation Matrix Analysis – MODEL III

Table 4.6

	KHPAC	PWB	HWS	MWB
KHPAC	1.000000			
PWB	0.745908	1.000000		
HWS	0.739218	0.763555	1.000000	
MWB	0.787916	0.777331	0.720464	1.000000

Source: Author's computation (2024)

Table 4.6 reveals Pearson correlation matrix for the variables as contained in the analysis. The correlation coefficients between dependent variable (KHPAF) and independent variables: KHPAM, PWB, HWS and MWB are strong positive correlation coefficient as shown in Table 4.6. Positive strong correlation between (KHPAM) and (PWB, HWS and MWB) 0.745908, 0.739218 and 0.787916 respectively, suggests that when one of these variables increases, the other tends to increase as well, and the relationship is very strong.

4.2 Regression Analysis

A regression analysis was utilized to test the research hypotheses 1 to 3. It was employed to examine the effect of knowledge of health promotion activities on selected secondary schools. Table 4.7 presents the summary of results of the regression technique in order to analyze the effect of knowledge of health promotion activities on selected secondary schools.

Table 4.7: Simple OLS Results for Models I – III

Variable	Simple Ordinal Least Square Results								
	Model I: Dependent Variable = KHPAM			Model II: Dependent Variable = KHPAF			Model III: Dependent Variable = KHPAC		
	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.
PWB	0.042970	2.694791	0.0033	0.672475	4.691065	0.0000	-0.139672	-0.914068	0.3662
HWS	0.074112	2.866330	0.0032	0.195604	2.909172	0.0008	0.445897	4.040629	0.0002
MWB	0.641977	5.869045	0.0000	0.145433	4.745733	0.0000	0.288036	2.282584	0.0278
C	0.970984	4.312650	0.0000	0.394951	4.153573	0.0000	1.838139	8.991875	0.0000
R^2	0.807317			0.754890			0.739930		
Adj R^2	0.795275			0.736506			0.720425		
DW Sta	1.784038			1.800935			1.504328		
F-Stat	67.03808			41.06395			49.5145		
P(F-Sta)	0.000000			0.000000			0.00000		

Source: Author's (2023)

The results in Table 4.7 are explained from the perspectives of each of the dependent variables.

Effect Of Knowledge of Health Promotion Activities on The Students' Well-Being in Boys' School in Owo – Model 1

Table 4.7 presents the outcomes of a least squares regression analysis examining effect of knowledge of health promotion activities on the students' well-being in boys' school in Owo. The variable PWB demonstrates a coefficient of 0.042970, with a t-statistic of 2.694791 and a p-value of 0.0033, indicating a significant positive influence of knowledge of health promotion activities on the students' Physical Well-Being in boys' school (PWB). Similarly, HWS and MWB exhibit coefficient values of 0.074112 and 0.641911, with corresponding t-statistics of 2.5866330 and 5.869045, and p-values of 0.0032 and 0.0000, respectively, indicating significant positive relationships with KHPAM in boys' school.

The overall model has an R-squared value of 0.8073, indicating that it explains 80.73% of the variance in KHPAM in boys' school. The adjusted R-squared value, at 0.795275, adjusts for the number of predictors in the model. The F-statistic of 67.03808, with a p-value of 0.0000, suggests the model's overall statistical significance. The Durbin-Watson statistic is 1.784038, indicating the potential absence of autocorrelation in the residuals.

Impact of Knowledge of Health Promotion Activities on the Students' Well-Being in Girls' School in Owo – Model II

Table 4.7 presents the results of a least squares regression analysis examining the effect of knowledge of health promotion activities on students' well-being in boys' schools in Owo. The variable PWB (Physical Well-Being) has a coefficient of 0.672475, a t-statistic of 4.691065, and a p-value of 0.0000, indicating a significant positive impact of knowledge of health promotion activities on the students' Physical Well-Being (PWB) in boys' schools. Similarly, HWS and MWB have coefficient values of 0.195604 and 0.145433, with t-statistics of 2.909172 and 4.745733, and p-values of 0.0008 and 0.0000, respectively, indicating significant positive relationships with KHPAF in girls' schools. The F-statistic of 41.06395, with a p-value of 0.0000, indicates the overall statistical significance of the model. Additionally, the coefficient of determination ($R^2 = 0.754890$) suggests that about 75% of the variations in KHPAF are explained by the explanatory variables in model II, with the remaining 25% explained by other variables outside the model. The Durbin Watson Statistic (1.800935) indicates that the variables do not suffer from autocorrelation.

4.2.3 Influence of Knowledge of Health Promotion Activities on the Students' Well-Being in Coeducational School – Model III

Table 4.7 shows the results of a least squares regression analysis investigating the influence of Knowledge of Health Promotion Activities on the Well-Being of Students in Coeducational Schools in Owo (KHPAC). The variable PWB has a coefficient of -0.139672, a t-statistic of -0.914068, and a p-value of 0.3662, indicating an insignificant negative impact of knowledge of health promotion activities on students' Physical Well-Being (PWB) in coeducational schools. In contrast, HWS and MWB have coefficient values of 0.445897 and 0.288036, with t-statistics of 4.040629 and 2.282584, and p-values of 0.0002 and 0.0000, respectively, indicating significant positive relationships with KHPAC in coeducational schools.

The overall model has an R-squared value of 0.739930, meaning that approximately 74% of the variations in KHPAC are explained by the explanatory variables in model III. The remaining 26% are accounted for by other variables outside the model. The Durbin Watson Statistic of 1.504328 indicates that the variables do not suffer from autocorrelation. The F-Statistic of 49.5145 and its corresponding probability of 0.0000 reveal that the research model is both significant and reliable.

The various hypotheses formulated in chapter one is, therefore, tested in this section. The decision rule is that if the calculated P-value is lower than 5% significant level, the alternate hypothesis is accepted and the null hypothesis is rejected. The restatement of the hypotheses and their results are as follows:

$H0_1$: There is no significant effect of knowledge of health promotion activities on the students' well-being in boys' schools in Owo, Ondo State.

Knowledge of Health Promotion Activities (KHPAM) has a significant positive effect on the students' well-being in boys' schools in Owo, Ondo State at the probability (F-Sta.) (p-value) of 0.0000 and F-statistic of 67.03808 at 5% significant level. This implies that the alternate hypothesis should be accepted while the null hypothesis rejected.

$H0_2$: There is no significant effect of knowledge of health promotion activities on the students' well-being in girls' schools in Owo, Ondo State.

Knowledge of Health Promotion Activities (KHPAF) has a significant positive effect on the students' well-being in girls' schools in Owo, Ondo State at the probability (F-Sta.) (p-value) of 0.0000 and F-statistic of 41.06395 at 5% significant level. This implies that the alternate hypothesis should be accepted while the null hypothesis rejected.
$H0_3$: There exists no significant effect of knowledge of health promotion activities on the students' well-being in co-educational schools in Owo, Ondo State.

Knowledge of Health Promotion Activities (KHPAC) has a significant positive effect on the students' well-being in co-educational schools in Owo, Ondo State at the probability (F-Sta.) (p-value) of 0.0000 and F-statistic of 49.5145 at 5% significant level. This implies that the alternate hypothesis should be accepted while the null hypothesis rejected.
The overall result shows that knowledge of health promotion activities has a significant positive effect on the students' well-being of selected schools in Owo, Ondo State. This implies that the alternate hypothesis should be accepted while the null hypothesis rejected

4.2 Discussion and Implication of Findings

The objective of this study is to examine the effect of Knowledge of Health Promotion Activities on the students' well-being of selected schools in Owo, Ondo State. The results from the study showed that Knowledge of Health Promotion Activities has a significant positive effect on the students' well-being of selected schools in Owo, Ondo State.

Hypothesis one posits that there is no significant effect of knowledge of health promotion activities on the well-being of students in boys' schools in Owo, Ondo State. However, the study found that Knowledge of Health Promotion Activities (KHPAM) significantly positively affects the well-being of students in boys' schools, with a p-value of 0.0000 and an F-statistic of 67.03808 at a 5% significance level. These findings support the theoretical expectations and endorse the alternate hypothesis over the null hypothesis. This implies that an increase in KHPAM corresponds to an increase in students' well-being in boys' schools in Owo, Ondo State. This outcome is consistent with the studies by Faleke et al. (2022) but contrasts with the findings of Hamilton-Ekeke et al. (2020). The positive impact of health promotion activities on boys' health can be attributed to the critical information provided about maintaining physical and mental health, leading to better personal health practices and decisions. Increased knowledge likely led students to adopt healthier lifestyles, such as improved dietary habits, regular exercise, and better hygiene practices. Health promotion activities often include stress management techniques, which can help reduce anxiety and enhance overall mental well-being among students.

Hypothesis two posited that there is no significant effect of knowledge of health promotion activities on students' well-being in girls' schools in Owo, Ondo State. However, the study revealed that Knowledge of Health Promotion Activities (KHPAF) has a significant positive effect on students' well-being in these schools, with a p-value of 0.0000 and an F-statistic of 41.06395 at a 5% significance level. This implies that the alternate hypothesis should be accepted, and the null hypothesis rejected. Consequently, the findings supported the theoretical expectations, indicating that any enhancement in KHPAF is associated with an increase in students' well-being in girls' schools in Owo, Ondo State. This outcome resonates with the research by Adebayo et al. (2023). The significant positive impact of knowledge of health promotion activities on students' well-being in girls' schools in Owo, Ondo State can be attributed to several factors. Knowledge of health promotion activities likely raises students' awareness about the importance of healthy behaviors, such as proper nutrition, physical activity, and mental health practices, leading to better health choices and habits. Understanding health promotion activities can empower students by boosting their confidence and ability to manage their own health, leading to proactive health management and a sense of well-being.

Hypothesis three stated that there is no significant effect of knowledge of health promotion activities on students' well-being in co-educational schools in Owo, Ondo State. The study found that Knowledge of Health Promotion Activities (KHPAC) significantly positively affects students' well-being in co-educational schools, with a p-value of 0.0000 and an F-statistic of 49.5145 at a 5% significance level. Thus, the findings supported the theoretical expectations and endorsed the alternate hypothesis over the null hypothesis. This indicates that for every increase in KHPAC by one unit, there is a corresponding increase in students' well-being in co-educational schools in Owo, Ondo State. This outcome aligns with the research by Ilesanmi et al. (2018) and Ngwu and Ekpiken-Ekanem (2017).

The positive impact in co-educational schools can be attributed to comprehensive education on health

promotion activities, which enhances students' understanding of various health aspects, leading to better health practices and improved well-being. In co-educational settings, students benefit from diverse perspectives and support networks, with both male and female students influencing each other positively and promoting a culture of health and well-being. Additionally, co-educational schools often promote inclusivity and diversity, creating a supportive environment where all students feel valued and encouraged to engage in health-promoting activities.

5. Summary, Conclusion and Recommendations

5.1 Summary of Findings

This section discusses the empirical findings from the research undertaken on the effect of Knowledge of Health Promotion Activities on the students' well-being of selected schools. The findings were organized according to research objectives and hypotheses.

Hypothesis one explored the effect of knowledge of health promotion activities on the students' well-being in boys' schools in Owo, Ondo State. To test this hypothesis and address the research questions, a simple least squares regression analysis was conducted, and the results were displayed in Table 4.7. The findings led to the acceptance of the alternate hypothesis over the null hypothesis, indicating that an increase in Knowledge of Health Promotion Activities (KHPAM) contributes to enhancing the students' well-being in boys' schools in Owo, Ondo State.

Hypothesis two examined effect of knowledge of health promotion activities on the students' well-being in girls' schools in Owo, Ondo State; Similar to hypothesis one, a simple least squares regression analysis was employed to examine this relationship and the results were presented in Table 4.7. The alternate hypothesis was accepted, contrasting with the null hypothesis, suggesting that a higher knowledge of health promotion activities corresponds to an improvement in students' well-being in girls' schools in Owo, Ondo State.

Hypothesis three delved into the effect of effect of knowledge of health promotion activities on the students' well-being in co-educational schools in Owo, Ondo State. Through a simple least squares regression analysis and the presentation of results in Table 4.7, the alternate hypothesis was validated, rejecting the null hypothesis. This implies that an increase in knowledge of health promotion activities is associated with a higher the students' well-being in co-educational schools in Owo, Ondo State.

5.2 Conclusions

This study carefully examined the effect of Knowledge of Health Promotion Activities on the students' well-being of selected schools in Ondo state. On the basis of the research findings, the following conclusions were reached:
Knowledge of Health Promotion Activities exhibited a significant positive effect on the students' well-being in boys' schools in Owo, Ondo State.

Knowledge of Health Promotion Activities showed a significant positive effect on the students' well-being in girls' schools in Owo, Ondo State.

Knowledge of Health Promotion Activities displayed a significant positive effect on the students' well-being in coeducational schools in Owo, Ondo State.
The study concluded that Knowledge of Health Promotion Activities displayed a significant positive effect on the students' well-being of selected schools in Ondo state.

5.3 Recommendations

Based on the findings from this study, the following recommendations are provided:

- Schools should incorporate structured health promotion activities and programs into their regular curricula. This could include lessons on nutrition, physical fitness, mental health awareness, and hygiene practices. Stakeholders should implement programs focused on issues specific to boys, such as puberty education, understanding body image, and addressing common male health concerns. Invite male health professionals for talks and Q&A sessions.
- Schools should focus on female-specific health topics, including menstrual health, reproductive health education, and self-esteem building. They can invite female health professionals to provide accurate and relatable information. They can also provide mental health resources, including counseling services and workshops on stress management, self-care, and body positivity, and create support groups where girls can share experiences and support each other.
- School authorities can develop inclusive physical education programs that encourage both boys and girls to participate. Activities

should cater to a wide range of interests to ensure everyone is engaged and benefits from physical exercise. They can also promote mental health awareness and provide resources that cater to both boys and girls. Create mixed-gender support groups and counseling services that address the unique and shared challenges faced by all students.

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Investigating Secondary School Students' Attitude Towards Gender Stereotype in Ijebu-Ode Metropolis, Ogun State, Nigeria

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Abstract. This research investigated secondary school students' attitudes toward gender stereotypes in the Ijebu-Ode metropolis, Ogun State. Questionnaires were administered to two hundred (200) students from four selected secondary schools in the metropolis. Data were collected and analysed using frequency counts, percentages, mean, standard deviation and t-tests. The findings of this study revealed students' positive attitudes towards gender stereotypes. Also, it was found that there is no significant difference in the students' attitudes towards gender stereotypes based on gender and class of study. Some recommendations were made on the findings obtained from the study.

Keywords: Gender, Stereotype, Attitude, Students, Ijebu-Ode Metropolis.

1. Background to the Study

Gender stereotypes means assigning specific attributes, characteristics, or roles to an individual woman or man by reason only of her or his membership in the social group of women or men (Office of the High Commissioner for Human Rights, (OHCHR, 2024). A gender stereotype has been further described by OHCHR (2024) as a harmful, generalised view or preconception about attributes or characteristics or about the roles that are or ought to be possessed by, or performed by, women and men.

Wenyao (2023) is of the view that gender stereotypes are prevalent in most aspects of life in this society and that gender stereotype is a decisive factor that leads to social gender problems. According to PNAS Nexus (2023), gender stereotypes cause damage to human beings of both genders and society more generally by guiding and sometimes narrowing individuals into behaviours, functions, and activities connected with their gender. Islam and Assadullah (2018) observed that it is unsafe to restrict individuals from pursuing their professional careers, developing their abilities, and making choices about their lives based on their gender. Harmful stereotypes are damaging whether they are overtly hostile or seem trivial.

Shared stereotypes comprise the belief that men are most concerned in professional life and women in domestic life. However, despite the exceptional abilities of women, conventional stereotypes about their career progression are still prevalent and continue to shape the career choices of both men and women.

Across the globe, irrespective of a nation's developmental status, societal norms and gender stereotypes have a profound impact on girls. This influence permeates various societal structures, including parents and educators. This is a crucial finding of the Global Early Adolescent Study conducted by WHO/John Hopkins University (2018). While some might dismiss this as insignificant, it has far-reaching adverse effects on girls from a tender age, diminishing their dreams and constraining their career possibilities."

Global rankings have continuously placed Nigeria within the low performers group when gender stereotype issues like gender equality, political representation, and educational attainment are discussed (IMF, 2022). Olonade et al. (2022) observed that in Nigeria, women's participation in the economy has been relatively low compared to men. They maintained that there has been unfair treatment of women and girls.

Ofoha (2013) remarks that from the moment a child is born in Nigeria, the gender role education process begins, with the male child being perceived as an asset that is highly treasured in most Nigerian homes. She

added that in education, priority is usually given to men because of the cultural perception of their role as breadwinners. For females, the belief is that they will ultimately wed and 'go under' their spouses; subsequently, they are treated as second-rate. Moreover, to sustain the predominance of the male youngster over the female youngster, she noticed that the female youngster is prepared to put herself under her male kin.she observed that the girl-child is trained to put herself below her male siblings.
In some homes, to make up for the financial inadequacy of the family, the girl-child is sent out to hawk to raise money for the family's needs. Some of the girls are married off at a tender age so that the bride price will be spent on the education of the boy-child and other family needs. In some cases, the girl-child may be given off for domestic labour in urban areas for a regular income to the family. These traditional beliefs and practices have successfully provided two different developmental grounds in the same home for the growth of the boy-child and the girl-child (Ezeliora & Ezeokana, 2011).

These views can be confirmed with the Gender Social Norms Index (GSNI) (2023). According to the GSNI, there are certain biases against women that exist in four different areas: political, educational, economic, and physical integrity. This index evaluates people's attitudes towards the roles of women. The report, which covers 85% of the global population, reveals that nearly 9 out of 10 people hold significant prejudices against women.

It is, therefore, against this background that this study is set aside to examine the perception of Social Studies students towards gender stereotypes in the Ijebu-Ode metropolis, Ogun State.

The research questions include:

- What is the attitude of secondary Social Studies students towards gender stereotypes in the Ijebu-Ode metropolis, Ogun State, Nigeria?
- Is there any significant difference between the male and female attitudes toward gender stereotypes in the Ijebu-Ode metropolis, Ogun State, Nigeria?
- Is there any significant difference between secondary school students' perceptions of gender stereotypes according to their class?

2. Theoretical Framework

This study is premised on the social learning theory, which postulates that human behaviour is a function of the individual and the environment. This implies that the variables of persons' behaviour and environmental situations are interrelated. The theory assumes that when two persons or groups interact, they become part of each other's environment.

Based on this theory, Bandura (1998, 2004) has developed a more specific model for predicting behaviour. Bandura used the concept of "goals" instead of "attitudes" and "subjective norms" (which are predicted by expectations and evaluation of expectations), and he used "outcome expectancies" (which can be physical, social, and self-evaluative) as predictors. Instead of "perceived behavioural control", he used the concept of "self-efficacy".

Bandura made outcome expectancies (the expected outcome of a specific behaviour) and self-efficacy (perceived ability to perform the behaviour), two of the most central concepts of his theory, explain how to understand the causal processes behind a behaviour, mainly as they apply in health behaviour research. An essential tenet of Bandura's theory is his "reciprocal determinism" principle. He distinguishes among three critical factors: behavioural, personal, and environmental. These can all be cause and effect.

Furthermore, Bandura includes "socio-cultural factors" (facilitators and impediments) in his model. Inducing a change in one of the factors may lead to changes in the other factors. The theory further suggests that teenagers learn behaviours through observation, modelling, and reinforcement from their social environment.

3. Research Methodology

The research design for this study is a descriptive survey research design that seeks to investigate the attitude of secondary school students towards gender stereotypes in the Ijebu-Ode metropolis of Ogun State. A total sample of two hundred (200) students was selected from four randomly selected secondary schools. Fifty (50) students, twenty-five Junior and twenty-five senior secondary school students from each school, were selected using convenience sampling.

A twenty-item structured questionnaire was used for data collection. The questionnaire consists of two sections. Section A contains the respondents' demographic information, while Section B contains statements on gender stereotypes with a four-point Likert scale (Strongly Agreed, Agree, Disagree, Strongly Disagree). A test-retest method was used to determine the instrument's reliability, where 30 students were not part of the samples selected for the

study. The split-half method was applied in the analysis, and a Cronbach Alpha coefficient reliability value of 0.81 was obtained, which shows that the instrument is reliable. Data were analysed using frequency count, percentages, mean, standard deviation, and t-tests using the Statistical Package for Social Sciences (SPSS) version 25.

4. Results

4.1 Demographic Data Analyses

The results obtained from the demographic variables of respondents are presented in Table 1.

Table 1: Distribution of Respondents by Gender

	Frequency	Percent
Male	81	42.2
Female	111	57.8
Total	192	100.0
Age		
18-20yrs	59	25.5
Above 20yrs	133	69.3
Total	192	100
	Frequency	Percent
Junior Secondary	80	35.9
Senior Secondary	143	41.1
Total	192	100.0

Research Question 1: What is the attitude of secondary Social Studies students towards gender stereotypes in the Ijebu-Ode metropolis, Ogun State, Nigeria?

Table 2: Mean response on the attitude of secondary school students towards gender stereotype

S/N	Items	SA %	A %	D %	SD %	Mean	Std.D
1	Boys are more active and outspoken than girls	69 (36.0)	75 (39.0)	32 (17.0)	16 (7.8)	3.03	.929
2	Boys can handle pressure situations better than girls	84 (43.7)	59 (30.7)	22 (11.4)	27 (14.0)	3.04	1.058
3	Men are mentally stronger than women	97 (50.5)	60 (31.2)	22 (11.5)	13 (6.7)	3.26	.911
4	Boys generally possess more scientific skills than girls	80 (41.2)	59 (30.7)	29 (15.1)	24 (12.5)	3.02	1.036
5	Females are better in reading than their male counterpart	73 (38.0)	64 (32.3)	29 (15.1)	26 (13.5)	2.96	1.038
6	Men are ready to take any risks	70 (36.4)	69 (35.6)	33 (17.3)	20 (10.4)	2.98	.979
7	Male students generally do better in school than female students	73 (38.0)	73 (38.0)	26 (13.5)	20 (10.4)	3.04	.967
8	Women are responsible for raising children	61 (31.7)	85 (43.4)	22 (11.4)	24 (12.5)	2.95	.967
9	Men should be the head of the family	81 (42.1)	73 (38.0)	22 (11.4)	16 (7.7)	3.14	.924
10	Women's place is at home	84 (44.0)	58 (30.2)	29 (15.1)	21 (10.9)	3.07	1.013
11	Women should not spend money without husband's approval	72 (37.5)	78 (40.6)	25 (13.0)	17 (8.8)	3.07	.927
12	Men have more socialization skills	84 (44.0)	63 (33.0)	22 (11.0)	23 (11.9)	3.08	1.015
13	Men are better at making financial decisions	70 (36.4)	68 (35.4)	29 (15.1)	25 (13.0)	2.95	1.020
14	A young girl should not be given much freedom as boys enjoy	71 (36.9)	74 (38.5)	22 (11.0)	25 (13.0)	2.99	1.005

15	Boys need sports activities for their physical and psychological development more than girls	73 (38.0)	80 (42.0)	19 (9.8)	20 (11)	3.07	.946
16	It is wrong for a woman to go out after midnight	55 (28.6)	93 (48.4)	24 (13)	20 (10.4)	2.95	.911
17	Women are not capable of taking risk as men are	78 (41)	69 (36)	23 (12.3)	22 (11.4)	3.06	.993
18	A women should not attempt to take up all kinds of typical male tasks	66 (34.4)	82 (42.7)	22 (11.4)	22 (11.4)	3.00	.960
19	Women should cook and do household chores	69 (35.9)	80 (41.6)	20 (10.4)	23 (11.9)	3.02	.973
20	Husband should be more educated than their wives	61 (31.7)	81 (42.1)	22 (11.4)	28 (14.5)	2.91	1.007
	Average Mean					3.03	.982

The data in Table 1 show that all the variables had mean values more significant than the critical value. From this result, it was deduced that all the statements were positively responded to as the perception of Social Studies students towards gender stereotypes. It was concluded that the respondents have a cheerful disposition toward gender stereotypes. This could be confirmed by the patterns of responses on the various items and issues raised under this research question.

For instance, the result shows that 'Husbands should be more educated than their wives' had the slightest perception, with a mean value of 2.91, while 'Men are mentally stronger than women' had the highest perception, with a mean value of 3.26. The average mean value of 3.03 is equally higher than the critical value of 2.50.

The perceived opinions include but are not limited to:

- boys are more active and outspoken than girls;
- boys can handle pressure situations better than girls;
- men are mentally more muscular than women;
- boys generally possess more scientific skills than girls;
- females are better at reading than their male counterparts;
- men are ready to take any risks;
- male students generally do better in school than female students;
- women are responsible for raising children;
- men should be the head of the family;
- women's place is at home;
- women should not spend money without their husband's approval.

The opinions expressed also included men have more socialisation skills; men are better at making financial decisions; young girls should not be given as much freedom as boys enjoy; boys need sports activities for their physical and psychological development more than girls; it is wrong for a woman to go out after midnight; women are not capable of taking a risk as men are; women should not attempt to take up all kinds of typical male tasks; women should cook and do housework; and husband should be more educated than their wives.

These patterns of responses confirm the student's position on gender stereotypes and show that they do not see anything terrible in these stereotypes. This is a reflection of the effect of the cultural undertones and beliefs surrounding socialisation in Nigeria and other African countries. This is confirmed by Mensah (2023) in his study "Husband is a Priority: Gender Roles, Patriarchy and the Naming of Female Children in Nigeria", where he reported that "heterosexuality is part of the traditional conception of marriage and has all the essentialist trappings that engender male dominance.

Research Question 2: Is there any significant difference in the attitudes of males and females towards gender stereotypes in the Ijebu-Ode metropolis, Ogun State, Nigeria?

Gender	N	Mean	Std. D	t	Sig.
Male	81	44.250	6.888	.617	.534
Female	111	43.655	6.451		

The independent sample t-test analysis indicates that the males *(N=80)* do not have a significant difference *(M=44.250)* than females *(N=116; M=43.655 t(194)= .617*. The males and females do not differ significantly from each other in the attitude of secondary school students towards gender stereotypes. It was therefore it was concluded

that there is no significant difference in the attitude towards sexual orientation between males and females in Ijebu-Ode.

However, this finding is a clear-cut departure from recent research by scholars like Skinner and Gottfried (2024). According to their new study, "young people's attitude to masculinity and women's equality show signs of an emerging gender divide, with the views of men and women often differing more from willing younger rather than older generations (Skinner & Gottfried, 2024).

Research Question 3: Is there any significant difference between secondary school students' perceptions of gender stereotypes according to their class?

Table 4: Analysis of significant differences in gender stereotype attitudes of secondary students according to their class

Class	N	Mean	Std. D	t	Sig.
Junior Secondary	96	23.175	4.295	-.918	.360
Senior Secondary	96	23.810	5.057		

The result in Table 4 revealed no significant difference (t=--.139, P>0.360). This implies that the mean score of attitude towards gender stereotypes of JS students is 23.175, which is not significantly different from the mean score of SS students, which is 23.810 at 0.05 level. That is, the observed difference is not statistically significant. The senior student category is slightly higher than the junior students, but the difference is not statistically significant. Thus, it was concluded that there is no significant difference between the attitudes of the two respondents towards gender stereotypes at both the JS and SS levels in the Ijebu-Ode metropolis.

This result does not, however, imply that all is normal at both levels of Nigeria's educational system. This is because other intervening variables like teachers' behaviour and instructional activities have not promoted inclusive practices in the classroom for both male and female students. Research findings from the United Nations Girls Education Initiative (UNGEL, 2023) revealed from a baseline study conducted in Bangladesh that only 56 per cent of the teachers in the study reported giving leadership roles to both boys and girls in their classrooms. This is already a reflection of some gender stereotyping from the teachers' angle.

5. Conclusion and Recommendations

Thus far, this study has investigated secondary school students' attitudes towards gender stereotypes in the Ijebu-Ode metropolis, Ogun State. The study found that a majority of the students have positive attitudes towards gender stereotypes. However, there is no significant difference in their attitude towards gender stereotypes based on gender and class of study.

The study emphasised how harmful it is to make generalisations about orientation that limit people from pursuing their careers and making choices about their lives. Such stereotypes could also be damaging, whether they are overtly hostile or trivial. In addition, they are harmful when compounded and linked with other types of stereotypes; they have a more significant negative impact on particular categories of women. Gender stereotyping is, therefore, wrongful when it results in a breach or breach of human rights and essential freedoms.

Some gaps were noticed in students' attitudes to gender stereotypes. The findings reflect the students' acceptance of gender stereotypes, even though their gender and class level did not affect this pattern of results.

Based on the findings of this study, the following recommendations are the result of this proposal:

- Curriculum review exercises at the national level and their adaptation at the state level must fully consider building content that is gender-sensitive and can help students question gender stereotypes in whatever they are learning.
- Teachers at the secondary school level need more definitive and clear policy direction on strategies for embracing gender-responsive approaches in the classroom. This will go a long way toward correcting the students' unpalatable dispositions toward gender stereotyping.
- Teachers' capacity to acquire the knowledge and skills required to overcome their fear of handling controversial gender stereotype issues in the classroom must be initiated and made an integral part of teacher professional development programmes.
- Teachers will need to acquire the digital skills to effectively source and handle relevant online resources needed to promote gender

equality in the classroom through self-development and government support.

The feasibility of these recommendations can be further assured if the findings of Ifegbesan (2010) are highlighted here. Specifically, from his findings on gender stereotypes, beliefs and the Nigerian primary school teacher, he concluded that, teachers are fully convinced on the need to integrate learning about gender-stereotypes into the school curriculum. He also found out that teacher training needs to be conducted in a way that will allow for the promotion of necessary awareness and knowledge about how to reduce gender-stereotypes through classroom teaching and learning.

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Health Education and Needs Promotion Awareness for Secondary School Students in Uganda

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Abstract. Health Education, particularly in Secondary schools, appears to be a neglected area in Uganda. This study investigated the health education needs of Secondary school students. The purpose of the present study is to assess health education needs of Secondary school students. The study adopted mix approach of (qualitative and quantitative) research for data collection. The quantitative data were collected by administering piloted questionnaire on Secondary school students (n=400) and the response rate was 82% (as 328 responses were complete). The same participants were also interviewed in groups of 4-6 students. The data collected through questionnaire were analyzed quantitatively; whereas, interviews were analyzed thematically. Overall, 68% of the Secondary school students required information about the main constructs of health education; 69% appeared to be keen on knowing about physical environment in and around their schools and homes; 77% were interested to get awareness about commonly spreading out diseases and puberty issues. The results of this study appeared to be aligned to the social context of Kampala, Uganda. The Secondary school students were merely aware of the main constructs of health education and needed awareness, specifically in food and nutrition, hygiene, seasonal and tropical diseases, infectious diseases, and psychological problems. Proper school health education programme may be initiated for Secondary school students.

Keywords: Health Education, School Health Programme, Seasonal Diseases, Tropical Diseases, Adolescent Health.

1. Introduction

Starting from, 19th century, health education now is an established profession having a unique body of 'knowledge, defined skills, experiences and a code of ethics' (Hussain & Mahmood, 2010). It is a dynamic public service domain which embraces theories and models from different allied disciplines like Education & training, health & medical studies, media & communication and anthropology, and areas alike (Shirreffs, 1978). This beautiful academic blend is an affirmation of its significance in 21st century's society. Health education, as the name indicates, generally focuses on and addresses the health issues of individuals and communities. It is based on the philosophy of 'Health Promotion for illness Prevention' (Halcomb, 2010). For enhancing the effectiveness of health education, it needs to be initiated from the grassroots level as a social endeavor. Social institutions like schools, communities and families etc. seem to be essential contributories to it. Health education imparted in schools appears to have a multiplying and lasting effect on students in their later lives. In schools, it embraces teaching and learning pertaining to knowledge, beliefs, attitudes, values, skills and competencies (Hussain, Javed, Eng, & Mohammed, 2013) of and about health. It mainly concerns with the health of school personnel, particularly the students and usually focuses on hygiene, food and nutrition; endemic and epidemic communicable diseases like hepatitis, cholera, dengue, and polio, etc seasonal diseases including influenza, gastroenteritis, sun stroke and water borne diseases like diarrhea, dysentery and commonly found tropical diseases of the region or area (Government of Uganda, 2023) in a systematic way. As school is regarded as one of the social institutions and centers of learning it seems necessary for it to design and offer useful activities for overall learning of the students.

Conventionally, schools had been educating children academically, however, in modern world school paradigms seem to have changed with changing

societal dynamics globalization, innovative pedagogy & learning styles, and knowledge society etc. (Hussain,2017). It envisions the role of school as a social institution and academic organization to be broader than ever before. It entrusts school the task of learning for the well-being of students, rather than merely educating them academically. Different studies (conducted by Basch, 2010; Case, & Paxson, 2016; Crosnoe, 2016; Haas, & Fosse, 2018; Hass, 2016; Heckman, 2018; and Shochet, Dadds, Ham, & Montague, 2016) affirmed the significance of different aspects of students' health and asserted that their physical, mental, social, and emotional health facilitate them to learn cognitively. Therefore, apparently, school seems to be responsible for the overall health of its students.

The famous proverb of the renowned philosopher Aristotle, "Education is the process of creating sound mind in the sound body" (Patil, & Sawale, 2011) suits best in school context which inculcates knowledge, skills, attitudes beliefs and values among students to build their later lives (Hussain, &Munshi, 2021) productively. Health education imparted in schools develops positive attitude and social skills necessary for achieving optimum level of wellbeing. It is believed that healthier students are better learners and poor health effects adversely on learning and achievement of school students (Palloni, 2016). Therefore, it seems imperative to impart health education at all the levels of schooling for improving health and well-being of the adolescence and youth.

Aligning health education with school activities appears to be significantly encouraging. Different studies demonstrated interesting results linked with the school's environment to enhance health of students and other personnel. The studies reported greater learning achievement of students(Koivusilta, Arja, & Andres, 2013); greater satisfaction and retention of school staff (Grayson, & Alvarez, 2018); enhanced efficiency and productivity (Harris, Cohen, & Flaherty, 2018); promotion of healthy school environment (Benard, 2014), and upholding a culture of school-community relationship to contribute to the growth and development of students (Fullan, 2011) by involving parents and opinion leaders the main community stakeholders in school health education programme (Bond, & Carmola-Hauf, 2017). A similar study (Marx, Wooley, & Northrop, 1998) affirmed relationship between educational reforms, and health and well-being of students in schools where later it appeared to be a contributory to their academic success.

1.1 Objectives of the Study

This study was conducted with the objectives to:

- Assess awareness of Secondary school students about their health problems.
- Identify their health education needs.
- Translate results of the study to health education promotion practice.

2. Health Education in Secondary Schools

In Uganda, schooling consists of different stages according to grade and or class level of studies (Hussain, 2009). Currently, there are almost five levels of schooling and or education in Uganda ranging from primary (including Primary grade) to graduate and postgraduate levels of education (Hussain, 2014). Although all levels of education are important and need special attention of students, their parents, teachers and other stakeholders, but Secondary level of education seems to be more crucial as it (usually) embraces emerging adolescents (Office of the Prime Minister's Science Advisory Committee, 2021). The Secondary school students of 9-12 or 13-years' age cohort are transitioning to puberty (Kintner, & Sikorskii, 2009) and complete concrete operational stage to entering into formal operational stage of cognitive development (Singer, & Rovenson, 1997; Piaget, 1952). This stage is characterized by applying logic to establish or determine relationship between objects (Lutz, & Huitt, 2014; Huitt, & Hummel, 2013) and activities.

At graduating stage from Secondary schools, the students experience remarkable changes resulting from their growth and development change in body and bodily functions, emotions, intellect and socialization (Crain, 2011). Secondary schooling is a volatile phase and period of identity crisis (Erikson, 1968) in the life span of school students, when desires are countless, friends become as significant as family members. (Tang, & Story, 2005). Individual differences among students also become more apparent (Sugarman, 1986) to be identified and treated accordingly. During Secondary schooling children attain a level of self-organization, empathy and altruism showing a sense of responsibility, independence, obedience, and ability to get along with others (Montemayor, Adams, & Gullotta, 1990). They wish to become independent and plan accordingly being persistent to complete their plans (Jolley, & Mitchell, 1996). As it is a crucial period in the life of students, they need facilitation by their parents and teachers. A minor overlook may lead to development of negative emotions or anti-social behavior among them. At this stage, parents and teachers have the responsibility of redirecting negative

emotions or unwanted behavior of students towards the accepted ones. Therefore, the role of health education in Secondary schools seems to be linked with the fundamental aim of education and/or schooling transforming "how to be a citizen" (Jourdan, 2011) into reality.

Although health education appears to be an integral component of school activities, in Uganda, the concepts of health and well-being included in school curricula seem to be too narrow to promote awareness among students about health promotion and illness prevention. The available literatures scarcely address the health education needs of Secondary school students. A lot of studies have been conducted on health and medical issues touching very narrowly the area under discussion. Different studies addressed different areas including perception and expectations of the faculty about medical education (Khalid, 2013), investigation into behavioral problems of school children (Hussein, 2018), demonstrating the perception and knowledge of high school students about their mental health (Secrist, 2006), indicating the status of health education in schools and challenges of teachers' training (Lavin, 1993), description of a rationale, guidelines and activities for school health education (Valois, 2011; Government of Uganda, 2010); signifying emotional intelligence and mental health (Burchak, & Nosenko, 2014); and provision of guidelines to achieve positive outcomes of a health education programme (Valois, 2013; McCuaig, & Nelson, 2012). Apparently, none of the studies identified the health education needs of Secondary school students. The preceding discussion affirms the significance and provides a firm ground to this study. Therefore, keeping in view, the significance of health and health education, needs of Secondary school students were studied.

3. Research Methodology

It was a smaller scale study that adopted mixed-method approach as the combination of qualitative and quantitative research provide a better understanding of a research problem and or issue than either research approach alone. The researcher employed concurrent transformative mixed method of data collection strategies. It validates and compares data to focus on different types of research questions (Creswell, & Plano-Clark, 2011) of the study. It is a simple approach in which qualitative and quantitative data are collected concurrently, therefore, the same subjects provided both qualitative and quantitative data.

3.1 Population and Participants of the Study

The population of the study consisted of boys from Secondary school students. The study comprised of two stage samples participants: 1). selection of schools and 2). selection of participants. During first stage 40 boy's Secondary schools were selected randomly from a master list of Secondary schools, whereas at the second stage, 10 students were selected again randomly from their roll call register of each of the sampled school. Thus, total participants were (n=400) taken randomly from 40 boys Secondary schools located in Urban areas of Kampala District. The location and gender factors were obvious in selecting those participants due to two reasons. Firstly, the Urban areas appear to have lesser facilities and students studying in Urban Secondary schools tend to face more health problems and need more attention, and secondly, accessing male students was easy. However, their counterparts, the female students were excluded due to socio-cultural issues. A separate study would be conducted to explore their health problems. The students were briefed about the objectives of the study and the process of its completion.

3.2 Procedure

The present study was descriptive in nature, therefore a survey was considered appropriate and adopted by the researcher. The survey consisted of mixed-methods approach of (qualitative and quantitative) research for data collection. The researcher developed two research tools a questionnaire and an interview protocol for data collection. The researcher developed a questionnaire on five-point rating (likert) scale after review of the available related literature. The questionnaire consisted on main themes constructs related with the health education needs of Secondary school students. These themes were drawn from the literature during its review. Initially the questionnaire was administered on 30 students for its pilot testing. In light of the results of the pilot testing, the researcher finalized the questionnaire. Similarly, the researcher developed an interview protocol consisting of main themes to get in-depth information of perspectives of the issue. It also helped researcher to overcome language barriers of the participants. The researcher piloted the interview protocol on eight students. The researcher personally administered the finalized questionnaire on the participants (n=400) of the study for quantitative data collection. However, 328 questionnaires were complete in all respects which affirmed 82% response rate of the participants. As the study adopted concurrent transformative mixed method, the researcher collected qualitative data from the same participants. The researcher interviewed the

participants of the study in groups by using Focused Group Interview Technique. However, each of the groups consisted of 4-6 participants. The researcher took notes of the responses of interviewees very carefully. This survey involved human subjects in school's setting, and the researcher observed research ethics throughout the study.

4. Data Analysis

When the process of data collection was over, the researcher analyzed quantitative data which were collected through questionnaire by using MS EXCEL Programme. The researcher used simple descriptive statistics i.e. percentage with the aim of unfolding results of the study for the understanding of the stakeholder's Secondary school students, their parents, teachers, policy makers and the public at large easily. The quantitative results were reflected in the form of graphical presentation. However, the researcher used thematic method to analyze qualitative data which were collected through interview protocol. The results of the questionnaire provided magnitude and frequency of ideas, whereas the results of the interview protocol helped in in-depth understanding of ideas. The combination of the results of both of the tools ascertained clear conclusion.

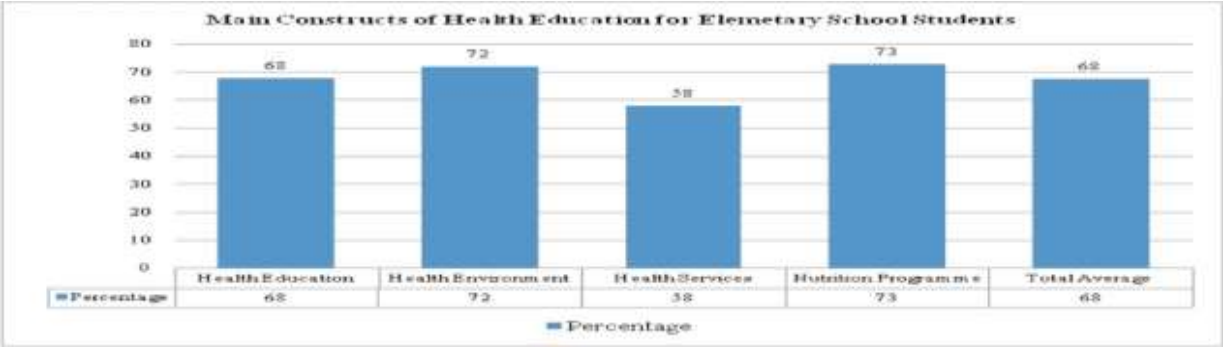
5. Results of the Study

5.1 Analysis of Quantitative Data

The data collected from Secondary school students by using questionnaire was analyzed quantitatively in terms of percentage. The results are presented in tabular-cum- graphical form for easy understanding of the phenomenon.

Awareness of Secondary school students about main constructs of health education

Figure 1, indicates the awareness of the respondents about the main ideas of health education program. The respondents appeared to be only known to these terms wishing to applicable information. According to Figure 1, the Secondary school students (68%) were of the opinion that they were only aware of the term 'health education', but not the detailed information about it and its available services. Similarly, 72% affirmed knowing 'healthful environment' with a serious desire to know about its components and the ways of promoting and maintaining it in and around their schools and homes; whereas, 58% showed their familiarity to 'health services' but they preferred to have knowledge about sources of health services and their availability near their schools and homes. Nonetheless, 73% of the respondents acknowledged the term 'food and nutrition' and were keen on knowing about balanced diet and nutritious elements for their daily intake. Overall, 68% of the Secondary school students appeared to be aware of the main constructs of a school health education program, but they required detailed and applicable information about these ideas.



Source: Primary Data 2024.

5.2 Areas of health education and related physical facilities in Secondary Schools

Health of individuals and their physical environment are interrelated. The latter has greater impact on the former. Figure 2 reflected that, Secondary school students (86%) were facing the problem of safe and clean drinking water and needed awareness about getting clean water for drinking. They needed awareness about water borne diseases and other conditions related with drinking water. Similarly, 68% of the students were of the view that they needed appropriate sanitation and toilet facilities in their schools. They appeared to be keen on knowing about the diseases caused by poor sanitation conditions and the ways of getting rid of them. Likewise, 61% of them acclaimed that they had poor ventilation in their classrooms and wished to know the usefulness of fresh air for them; 56% appeared to be unaware about the benefits of physical activities and exercises. However, 73% were wishing having information about students' friendly

environment and how to create and maintain it in their respective schools. Overall, 69% of the Secondary school students needed awareness about their physical environment in and around their schools and homes.

Source: *Primary Data 2024.*

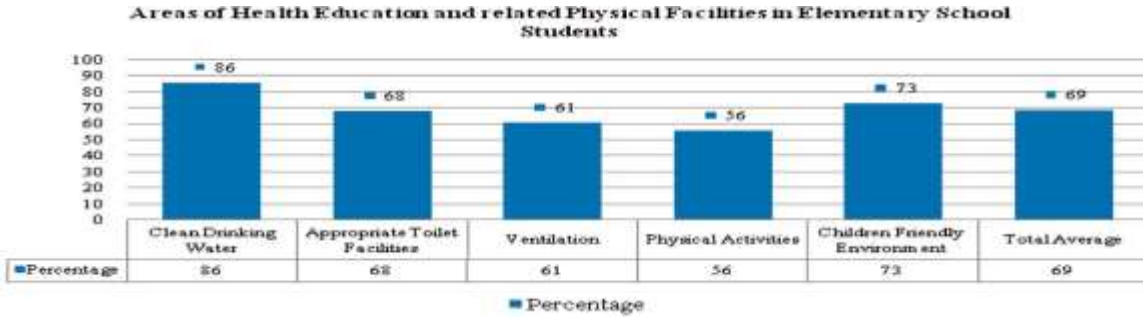


Figure 2. Areas of health education and physical facilities in Secondary schools

Getting detailed and specific honest information for interpreting the situation and or phenomenon under study. The interview protocol was designed after available literature review on basic parameters of health and needs of health education for Secondary school students. The respondents were interviewed in groups of 2-6 in each of the groups. Usually, the groups of students were larger (4-6) than their teachers (2-3). The respondents were explained about objectives of the study in advance and they voluntarily participated in the survey. The respondents were assured about the confidentiality of the information provided by them.

5.3 Seasonal diseases

In response to a question on the type of information they needed on health education, almost all the students were of the voice, "We know a little about seasonal diseases. We need useful information about seasonal diseases, their breaking out, prevention and treatment. We need to know about the preventive measures which we can take easily against seasonal diseases". They appeared to be more concerned with their health issues. Almost all of them were of the view that they should have proper information about common infectious diseases and their preventive measures like hepatitis, tuberculosis, influenza, malaria etc. They said, "We are not aware of the fatal infectious diseases, their preventive measures and treatment. We even do not know their names except Malaria fever about which information has massively been disseminated through formal and informal means including media campaigns. A massive and organized campaign needs to be launched about infectious diseases, modes of their breaking out, prevention and controlling mechanism. Moreover, vaccination against commonly transmitted infectious diseases is quite necessary for saving our lives".

5.4 Medication and treatment practices

Medication and treatment of minor ailments counts a lot to be healthy. Secondary school teachers showed their concern to the issue and said, "usually Secondary schools don't have medication and treatment facilities. Students have to go far away to health facility even for minor ailments like headache, fever, malaria etc. Similarly, in case of any emergency, first aid arrangements are not available. A small dispensary having first aid arrangements needs to be set up in Secondary schools. A teacher should be provided training to run the dispensary. More or less the same views were expressed by the students.

5.5 Food and nutrition

Proper food and nutrition balanced diet ensures the enhanced learning of students by contributing to their healthy growth and development, and cultivating life-long healthy eating behaviors. Balanced diet provides necessary calories to Secondary school students and saves them from many unnecessary physical conditions like obesity, increased level of cholesterol, to prevent their complications later in adulthood. It is of worth mentioning that youth is keen on having fast food which may meet their nutritious needs, but having reduced naturally occurring trace nutrients vitamins, minerals and fiber etc. However, some may be rich with nutrients even after processing with varied level of notorious elements. The level of nutritious elements has effects on the overall health and learning of school students. Food and nutrition are vital for healthy life. Balanced food plays an important role in the growth and development of individuals and protects against diseases by producing proper immunity. Secondary school students are in fast growing stage of life, and therefore, they need special care of their food and nutrition. The students were of the voice, "We used to eat what we have being unaware about balanced food.

We have different food items and if we have proper awareness, can manage to have balanced food for our health".

5.6 Puberty and physiological changes

Secondary school students belong to adolescent age group. At this stage some hormonal and physiological changes are taking place. Apparently, these changes have significant impact on physique and physical structure of the adolescents including body shapes, voice and psychological traits of their personality. Adolescence is puberty stage which is usually referred to as a 'volatile stage' of the life span of an individual. At this stage, one is emotionally charged and needs proper guidance & counseling and training for life. Signs of puberty start to appear during adolescence among Secondary school students (13-16 years' age cohort). Some psychological, social and physical problems may emerge due to unawareness and inappropriate coaching of teachers and or parents. Majority of the Secondary school students were of the view, "We usually are unaware of the changes which occur during puberty and maturation. We need detailed information about growth and development particularly the physical changes taking place due to hormonal changes. During this stage we feel fear and shyness. This situation creates anxiety and depression among us. We can't share and discuss with others except sometimes in our social circles due to social norms and taboos. If we know about all happening to us would help us to prevent socio- psychological and physical problems leading to adjustment in home, school and society". It seems to be necessary for the school to provide detailed information on growth and development to Secondary school students keeping in view their profile.

5.7 Pimples and eczema

Pimples are usual tropical health related conditions which affect faces of physically growing students during summer season. A large number of Secondary school students were of the opinion, "Pimples and eczema are commonly found skin conditions. These conditions affect our faces and we feel psychologically depressed and have inferiority complex. Therefore, we need awareness about pimples and eczema, their proper preventive measures and suitable medication. It was obvious that Secondary school students were conscious about freshness of their faces.

5.8 Health, hygiene and poverty

Health and hygiene are interrelated. Excellent hygienic conditions prevent illness and usually assure health of individuals. Religion also has emphasized on cleanliness. Therefore, it seems necessary to develop hygienic habits and attitude towards cleanliness of self and surrounding among Secondary school students. It not only promotes the health of students, but also their well-being resulting in welfare of their families. The respondents expressed their views, "We are un-satisfied with sanitary condition in our schools. Safe drinking water is scarcely available. At homes our parents have lesser resources and our families are not well-off to afford much for our personal hygiene. Our parents have to make both ends meet for livelihood and education of our family members. In Urban areas, maintaining one's hygienic conditions is considered to be a luxury. How we can observe hygienic code to promote health in such situations. We want to know the simple and latest hygienic techniques related to food & nutrition, drinking water, environment of home and school and personal cleanliness within what we/our parents have/ can afford".

Poverty appeared to be the big barrier in observing hygienic code in daily life of Secondary school students. It was evident from physical appearance and body language of the students that they were facing hygienic problems due to poverty at their homes and because of lesser resources at schools.

5.9 Dietary precautions and sliming practices

Food is necessary for individuals to live and work properly. The Secondary school students are involved in intellectual activities at a stage of faster growth and development. Therefore, they need special food and food items. They need fresh balanced diet according to their calories consumption need. Moreover, now-a-days slimming has become a common fashion among students too. Neglecting significance of proper food intake according to the need of students may cause overweight (obesity) or underweight (malnutrition) fatal conditions. Proper dietary precautions facilitate students to avoid both of the conditions. Secondary school students who use contaminated food items and beverages become prey to illness foodborne illness. A majority of the respondents appeared to be keen on knowing dietary precautions to control the weight. They were of the voice, "We need information about food and food items and our daily need of calories. We want to know precautionary measures for food intake. We don't want to become obese or malnourished, but healthy to live productively. We and our parents wish to learn simple and effective measures of food safety to prevent foodborne illness and diseases". The respondents appeared to be more concerned with food safety as they usually come into contact with contaminated food items in their daily life.

5.10 Physical Environment

Physical environment and environmental factors affect the health and wellbeing of Secondary school students. It includes but not limited to physical facilities and infrastructure, pollution, roadside traffic, hazardous elements, sanitation and toilets in home and school etc. Better environment promotes health and healthy attitude among Secondary school students. Almost all of the respondents showed their interest in knowing strategies and techniques to promote human friendly physical environment. They said, "We need an environment to live healthy and peacefully. We want to know how to make our environment favourable for good health and living properly, how to get rid of pollution, hazards of roadside traffic and other environmental factors which contribute to unhealthy environment, information about environmental effects on human life and their preventive measures. It would facilitate us in becoming healthy to live a happier life ahead". The students showed their interest in knowing how to maintain their health as friendly physical environment.

5.11 Disease Prevention and Control

Disease prevention and control play a vital role in the school life of students. Students have greater chances of vulnerability to diseases, particularly infectious diseases like hepatitis, scabies, tuberculosis etc. Proper awareness about infectious diseases and their preventive measures can help students to be safe and immune from the diseases. When students were asked about disease prevention and control, they were of the voice, "We don't know about infectious diseases, their spreading out and preventive mechanism and/or strategies. We want to know about different communicable diseases and the ways of becoming safer from them". We also want to learn how to strengthen prevention strategies and control of chronic and non-communicable diseases by eradicating risk factors too. Apparently, the students were unaware about disease prevention and control, but having positive information seeking behavior.

5.12 Safety and Injury Prevention

Physically, Secondary school students are in a state of faster growth and development. They appear to be adventurous and risk taking with thrill and enthusiasm of life. The risk-taking attitude sometimes, results in serious injuries. Therefore, it seems necessary for school as well as parents to provide proper counseling and guidance to Secondary school students, ensuring safe and protective environment. The respondents looked very keen on taking initiatives and assuming adventurous activities. They said, "Adventures amuse us. We feel pleasure and thrill in risk activities including one wheeling while driving motor bikes, racing and zigzag driving. We also feel pleasurable in repeating actions of different movies in real life situations. Of course, it is dangerous but gives us much excitement. We forget accidents and injuries, rather the feel a sense of pride among friends". Here the responsibility of parents and teachers becomes evident to save lives of their children.

5.13 Smoking, usage of tobacco and substances

Usage of tobacco and other substances including heroine, shisha and gutka is dangerous to health. Secondary school students are in a volatile age group and they want to be noticed and recognized because of some act or deed. Smoking during teenage appears to be a sign for additional substance abuse in later life. Smoking of cigarettes seems to be a significant predictor of drug usage, its possibility and frequency during adulthood. Therefore, school and parents have to play a significant leading role to prevent tobacco/smoking and other substance usage. The Secondary school students appeared to be hiding the fact, but some of them admitted that they were using tobacco/smoking cigarettes. The students mentioned different reasons for smoking and using other substances. A few of the students said, "We use tobacco and other substances including opiate and shisha to get pleasure". Very small number of students affirmed, "Initially we used tobacco and shisha in thrill being ignorant of their hazardous effects, but now we are addicted". Some of them were of the opinion, "We smoke cigarettes as fun and fashion". Whatever the reasons and causes of using tobacco and other substances have been recorded; their usage appears to be injurious to health of adolescent and youth. However, unawareness about hazards appears to be the major factor. Therefore, awareness campaigns may be launched in schools.

5.14 Prevention of physical violence

Physical violence causes injuries and mental stress to students in schools. Secondary school students seem to be fond of viewing movies, particularly the action movies. They appear to be eager to repeat actions by which they are impressed. Usually, it results in injuries and psychological stress. Majority of the respondents affirmed their interest in action movies in interesting way. They described dialogue and actions of different movies with fascination and pleasure. They stated, "We repeat actions as we feel attraction in them". A few of them said, "We do what we see just as a fun and it usually results in a fight with other students". Some others described, "We repeat actions to impress others

[our friends and fellows] and show our dominance. We get injuries and others too." It was evident from the discussion that, Secondary school students were generally taking interest in viewing action movies and they repeat dialogues and actions in their real life just as a fun. They and their fellows become injured physically which may result in psychological stress among them and their parents. Apparently, it hinders their studies and leads to their poor performance in the examinations. The school administration, teachers and parent can address the issue through collective and coordinated efforts by providing counselling, monitoring their activities and social circles, initiating discussion and dialogue, appreciating their positive behaviours, and continuous moral coaching.

6. Discussion and Conclusion

The results of the study appeared to be interesting and demanding attention of the school administration as well as parents. The Secondary school students appeared to be aware of the main constructs of health education to some extent with a wish to know strategies to promote their health and environment and provision of health facilities and services near their schools and homes. Overall, the results of this study appeared to be aligned with assertion that, health and well-being of students play a positive role in their learning (Lohrmann, 2010). The preventive results of the study coincide with the results of other studies (Bijlani, 2000; Verma, & Saraswathi, 2002) conducted on mental health and well-being of students. Similarly, a large number of adolescents are facing health problems resulting from unawareness, unhygienic conditions and unhealthy environment (Chaturvedi, Kapil, Gnanasekaran, Sachdev, Pandey, & Bhanti, 1996). The strategic interventions which serve as remedial measures (Kanade, Joshi, & Rao, 1999) are also in accordance with the results of this study.

The study concludes that, the Secondary school students faced problems of and needed information about medication and treatment practices, food and nutrition, puberty and physiological changes, pimples and eczema, health and hygiene, dietary precautions and sliming practices, physical environment, disease prevention and control, safety and injury prevention, smoking and usage of tobacco and other substances. They also needed awareness and education on problems arising from physiological changes –puberty and maturity.

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Estimating Standard Error of Measurement in BECE 2022 Basic Science Multiple Choice Test Items "in Etsako West Local Government Area of Edo State" Using Bootstrap Methods

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Abstract. Evaluation is an essential concept in educational setting which is usually carried out through measurement process to ascertain each testakers abilities in a population during testing and this can be done by determining the standard error of measurement. This study used Bootstrap methodologies to assess the standard error of measurement for the 2021 Basic Education Certificate Examination. This study was conducted using a descriptive research approach. The population consisted of 3,504 Upper Basic Secondary School three (JSS3) pupils from 14 public and 20 private institutions. A multistage selection approach was used to pick 350 students from five (5) and ten (10) public and private Upper Basic Secondary schools using stratified, simple random, and proportional sample sizes. The data collecting instrument consisted of sixty (60) multiple choice items from the 2022 BECE, Basic Science, and Technology multiple choice test. The instrument's dependability was tested using the Kuder-Richardson 20 (KR 20) to determine internal consistency. It returned a result of 0.91. The acquired data was examined using bootstrap statistics and the bootstrap t-test for independent samples. The results of this research indicated that there was moderate diversity in the test scores of pupils in public as well as private educational institutions for the 2022 BECE of Basic Science and Technology multiple choice exam questions. It also revealed that the scores of private Junior Secondary School three (3) students had more variability than those from the public Junior Secondary School. It was recommended that test should be administered fairly and consistently in both private and public schools which will help to create equitable testing environment for all students, regardless of whether they attend private or public schools.

1. Introduction

The development of a nation is the function of how science and technology is handled because science and technology has become the live wire fostering development in the world including Nigeria. Technological and scientific advances have a significant part in the formation and growth of a nation. Nations that are deemed developed and civilized have reached this position via intentional scientific teaching of their inhabitants (Ajayi, 2017). Science and technology is an indispensable tool that any nation that wishes to progress in the socio-economic sphere cannot afford not to include the learning of science in the school curriculum. As a result, in order for Nigeria to attain scientific and technological growth, it is critical that the country begin preparing for a solid fundamental scientific education foundation for its citizens as early as possible, as children's exploration commences at a young age. According to Enemarie (2016), Nigeria is poised to become one of the world's most scientific and technologically sophisticated nations as a consequence of significant scientific and technical contributions to human growth. As a result, fundamental concepts in technology and science are taught in primary schools to capture students' attention early on. As additional instruction, basic science is also taught in upper basic secondary schools in Nigeria to assist students in developing a tangible as well as solid foundation for scientific and technological advancement.

To determine the level of achievement and extent to which basic skills have been acquired by the pupils, test must be conducted to provide useful information about their performance and this can be accomplished through educational testing. One of such tests conducted to know the level of achievement of the students "is the Basic Education Certificate Examination." The Edo State Ministry of Education conducts the Basic Education Certificate Examination on an annual basis for students who would be transitioning from the junior secondary school category to the senior secondary school category after three years. So, anytime a test, such as the BECE, is conducted, the test user wants to be certain that the results of the students can be repeated if the same group of students have been evaluated again under comparable conditions. The expected constancy of test scores is referred to as reliability.

To some degree, all psychological measures are erroneous. Each tester and developer is concerned about the level of unreliability in a collection of observations. So, anytime a student replies to a set of test items, his or her score reflects a small sample of behaviour. As a result, scores recorded under the above circumstances are prone to measurement error. Miller and Liun, as reported in Esomunu and Okeaba, 2021, defined error of measurement as a condition in which a testee's result might be understated or overstated. Errors are significant sources of construct-irrelevant variation in assessment findings (Adeosun & Ekwere, 2022). There are two types of measurement errors: systematic and random. Systematic shortcomings are those that constantly affect a person's performance as a result of certain particular features about that person or when the test is unconnected to the construct being measured, whereas random errors affect an individual's score as a result of purely unforeseen circumstances such as guessing, become distracted during test oversight, etc. Systematic errors produce erroneous test results, limiting their practical use (Crocker & Algina 2008), whilst random errors diminish test score consistency and usefulness.

Due to the inconsistencies in measurement, there is need to for estimating errors. An error according to the CTT model is the discrepancy or difference between a test takers observed scores and his /her true score. According to Ado, referenced in Imasuen and Ogbomwan (2014), CTT is a basic model that illustrates how measurement errors affect observed scores. Meanwhile, it is impossible to calculate the precise amount of inaccuracy in a specific score, but the CTT technique may be used to characterise how individual test takers' seen results differ from their real scores. The actual score is the average score of a test taker's observed score based on an increased number of repeated tests. These repeated tests provide a distribution of several test takers' likely observed scores around their real scores within a broader range of scores for the entire group on a single exam. As a result, there is a standard deviation for the entire group. In theory, each test taker's own distribution of potential observed scores around their real score has a standard deviation. Consequently, when individual error standard deviations are averaged for the group, the result is known as standard error of measurement (SE). As a result, standard error of measurement may be defined as the standard deviation of mistakes in a measurement related with the test scores of a specific group of test takers. (AERA, APA, & NCME, 1985) cited in (Adewuni & Busari, 2021).

The standard error of measurement is the most straightforward and suitable measure of variability. It evaluates how repeated measures of a person on the same instrument likely to spread about his or her real score. The SEM is based on the inaccuracy in predicting a person's observed score given their real score on a randomly selected parallel test (Price, 2017). Furthermore, SEM is directly connected to test reliability, which implies that the greater the standard error, "the lower the test's reliability, and the smaller the standard error of measurement, the higher the test's reliability." SEM is used to calculate a confidence limit and interval for observed scores. Several non-parametric approaches have been developed to estimate the extent of the standard error of measurement. Examples include the Feldt technique, Bionmial, and Bootstrap approaches.

The Bootstrap technique is a non-parametric resampling approach that does not rely on the normalcy assumption. According to Efron, as described in Imasuen and Ogbomwan (2014), bootstrapping is a computationally costly approach for estimating standard errors of a wide range of statistics. It allows for estimation of standard errors utilising sample size and simulation. The bootstrap method is a statistical approach for estimating the sampling distribution of a statistic. The goal of employing bootstrap methods is to do many forms of statistical inference using contemporary computing capacity. Bootstrapping is a resampling process that leverages data from a single sample to produce a sampling distribution by picking random samples from the known sample along with replacing them. In the bootstrap technique, replacement and repetition are the most appropriate ways to take a sample from the population. The bootstrap technique uses repeated sampling with replacement from a data set to estimate

the standard error and other features of a sampling distribution.

1.1 Statement of the Problem

In conducting an evaluation, measurement is an important component that must be taken. The success of learning can be seen from the size of the measurement of the standard error that occurs in testing process. The standard error of measurement is useful for estimating how widely the real score may differ from the observed score of an average test taker in the community. There have been several methods created for calculating standard error of measurement, which are divided into three categories. We now have those that use classical test theory, item response theory, and those that make no assumptions. Those method based on assumptions usually provide a point estimate which may not reflect the actual value of the test taker. This now pave way for other methods to be considered, which one of them is Bootstrap methods. It is also observed that the use of bootstrap methods in estimating standard error of measurement has not given adequate attention in Nigeria and Edo State in particular. Therefore, this study estimated standard error of measurement of the 2022 Basic Education Certificate using Bootstrap methods in Etsako West Local Government Area of Edo State.

1.2 Research Questions

- What is the standard error of measurement of the 2022 BECE in public Upper Basic Secondary School in Etsako "Local Government Area of Edo State?
- What is the standard error of measurement of the 2022 BECE in private Upper Basic Secondary School in Etsako Local Government Area of Edo State?
- What is the difference in the standard error of measurement of the 2022 BECE in public and private Upper Basic Secondary School in Etsako Local Government Area of Edo State?"

1.3 Hypothesis

Research question three was hypothesized "and tested at 0.05 level of significance:

- There is no significance difference in the standard error of measurement of the 2022 BECE between public and private Upper Basic Secondary Schools in Etsako Local Government Area of Edo State."

1.4 Research Methodology

This study used a descriptive research methodology and included 3,504 pupils from 14 public and 20 private junior secondary schools in Etsako West, Edo State. The study employed a multistage sampling approach that included stratified, simple random, and proportional procedures. The pupils were classified depending on school ownership, namely public and private upper basic secondary schools. Three students used simple random selection to choose five public schools from 14 and ten private schools from 20 Upper Basic Secondary schools. Also, proportionate sampling techniques was used to select 250 students from 5 public schools and 100 students from the 10 private schools. The research instrument used was 2022 Basic science and Technology multiple test items of Edo State Basic Certificate Examination conducted by Edo State Ministry of Education. The Kuder Richardson formular 20 was utilized to establish the reliability coefficient and it gave an index of 0.82. To address the study questions, the data was analysed using Bootstrap statistics, as well as the hypothesis was tested using a t-test with independent statistics.

2. Results

Research Question 1: What is the standard error of measurement of the 2022 BECE in public Upper Basic Secondary School in Etsako West Local Government Area, Edo State?"

Table 1: Bootstrap Standard Error of Measurement of the 2022 BECE in Public Upper "Basic Secondary School in Etsako West Local Government Area, Edo State"

		Bootstrap			
	Statistic	Bias	Std. Error	BCa 95% Confidence Interval	
				Lower	Upper
Mean	41.94	-.01	.80	40.49	43.60
N	250	0	0	.	.
Std. Deviation	12.371	-.007	.452	11.507	13.275

Table 1 shows mean value of 41.94, standard deviation of 12.37, and standard error of measurement as 0.45, with a bootstrap accentuated 95% confidence interval BC_a (11.51 – 13.28). This is an indication that the variability of the scores of the 2022 BECE in public Upper Basic Secondary School in Etsako West "Local Government Area, Edo State was moderate.

Research Question 2: What is the standard error of measurement of the 2022 BECE in private Upper Basic Secondary School (3) in Etsako West Local Government Area, Edo State?"

Table 2: Bootstrap Standard Error of Measurement of the 2022 BECE in Private Upper Basic "Secondary School in Etsako West Local Government Area, Edo State"

		Bootstrap			
	Statistic	Bias	Std. Error	BCa 95% Confidence Interval	
				Lower	Upper
Mean	37.69	-.08	.94	36.03	39.23
N	100	0	0	.	.
Std. Deviation	9.553	-.066	.406	8.864	10.125

Table 2 shows mean value of 37.69, standard deviation of 9.55, and standard error of measurement as 0.41, with a bootstrap accentuated 95% confidence interval BC_a (8.86 – 10.13). This is an indication that the variability of the scores of the 2022 BECE in private Upper Basic "Secondary School in Etsako West Local Government Area, Edo State was moderate.

Hypothesis One: There is no significant difference in the standard error of measurement of the 2022 BECE in public and private Upper Basic Secondary School (3) students in Etsako West Local Government Area, Edo State."

Table 3: Bootstrap for Independent Samples Test of the "Difference in the Standard Error of Measurement of the 2022 BECE in Public and Private Upper Basic Secondary School in Etsako West Local Government Area, Edo State"

Statistic					Bootstrap					
Schools	N	Mean	Standard deviation	t-value	Mean Difference	Bias	Std. Error	Sig. (2-tailed)	BCa 95% Confidence Interval	
									Lower	Upper
Public	250	41.94	12.37	-3.083	-4.246	.053	1.268	.002	-6.810	-1.650
Private	100	37.69	9.55							

Table 3 indicates a computed value of -3.083 with a p-value of 0.002. At the 0.05 level of significance, the p-value is smaller than the alpha level. Therefore, the null hypothesis is that "there is no significant difference in the standard error of measurement of the 2022 BECE in public and private Upper Basic Secondary Schools in Etsako West Local Government Area, Edo State" is rejected. The standard error of measurement for the 2022 BECE differs significantly across both government and private Upper Basic Secondary Schools in Etsako West Local Government Area, Edo State. This is an indication that the scores of public Upper Basic Secondary schools' three (3) students had more variability than those from the private schools.

3. Discussion of Finding

The results obtained from the analysis of research question 1 show that there is a high level of uniformity between the noticed and actual scores, implying that the variability of 2022 BECE scores in public Upper Basic Secondary Schools in Etsako West Local Government Area of Edo State is moderate. When scores have a moderate level of variability, it provides a more accurate picture of the underlying distribution of scores which means that the individual scores are spread out but not too much (not wildly different from each other) within the population. It allows meaningful comparisons between individuals and groups. Also the moderate level of variability means that the test is not too easy or too difficult and able to differentiate between students various ability level. As a result, the exam is dependable and gives valuable information about the students' performance. This is consistent with the findings of Adewuni and Busari (2021), who discovered that students' performance in WASSCE May/June economics multiple choice objective tests 2019 had a SEM of 4 (+ or -4), indicating that the test was more accurate, reliable, as well as correct.

The findings of research question 2 means that the variability of the scores of the 2022 BECE in private

Upper Basic Secondary Schools in Etsako West Local Government Area, Edo State was also moderate, it implies that they provide a reliable and accurate measure of student performance without being too easy or too difficult. Additionally, it indicates that the test is fair and that all students have a chance to demonstrate their abilities. This is consistent with the research findings of Adewuni and Busari (2021), who discovered that students' performance on the WASSCE May/June economics multiple choice objective exams 2019 had a SEM of 4 (+ or -4), indicating that the test is more exact, dependable, and right.

The findings of hypothesis 1 showed that the private Upper Basic Secondary school score had more variability than public school scores. The larger variability in private schools may be due to the fact that there is more diversity in the types of schools that fall under the private category. For instance, some private schools may be highly selective and have a more homogenous student body, while others may be less selective and have a more diverse student body. This diversity in the types of private schools may contribute to the observed difference in variability. Also, private schools have more flexibility in their curricular, teaching methods, and policies, this greater flexibility may lead to more variation in how the schools operate, which in turn could lead to more variability in student outcomes while public schools tend to have a more standardized curriculum, so there may be less variability in the content covered and in the way that it is taught.

In addition, public schools often have more standardized testing procedures which may lead to less variability in the scores. Finally, private schools may have more resources, such as smaller class sizes which could contribute to the observed variability in student outcomes while public schools often have a larger number of students taking the same test, which could also lead to less variability in the scores. This difference is statistically significant, this implies that public Upper Basic Secondary schools score had less variability than private Upper Basic Secondary schools scores. The implication of this finding is that the SEM for BECE is not equal for public and private school students and this should be taken into consideration when interpreting the scores. This is in line with the study of Satya (2021) The results of the research demonstrated that private schools provide higher-quality education than public schools. It also agreed with Olanigan et al. (2022), who discovered that applicants students at private educational institutions surpassed those in public educational institutions in regards to academic success. This nevertheless differed with Agah (2013), who reported in the research he conducted that the mean ability assessments of students in both public and private educational institutions did not change substantially, nor did the mean ability estimates alongside additional moments (standard deviation and variance).

4. Conclusion

According to the findings of the present research, the examination demonstrated moderate variability in BECE scores in both private and public institutions. This indicates that the exam given to students in both private and public schools is dependable since it provides a pretty accurate picture of the students' performance with a decent degree of variation between individual scores. It also suggests that the test is neither too simple nor too challenging. The data also revealed a statistically significant difference between kids' scores in private and public schools, although a modest one. However, the greater variability in private schools indicates that there is more variation in the students' scores which may be due to a number of factors, such as the quality of instruction, the resources available to students, or the characteristics of the individual students themselves. Therefore, it is important to consider this variability when interpreting the results of the BECE.

5. Recommendations

Based on the findings of this study:

- It was recommended that other measures of knowledge or skills such as teacher observation or classroom performance should be considered in addition to the test scores.
- It was recommended that there should be provision for additional support for private schools such as professional developments for teachers, increased access to resources and improved consistency in test administration.
- Further research should be carried out into specific causes of the variability in scores between private and public schools to help to identify and address any underlying issues which will provide more accurate and comprehensive assessment of student's performance as well allow for more effective interventions and improved educational outcomes for all students.

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Theoretical Sampling Strategies in Qualitative Interviews: Enhancing Data Richness and Theoretical Saturation

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Abstract. This research paper explores the role of theoretical sampling in qualitative interview-based research, emphasizing its significance in ensuring data richness and theoretical saturation. Theoretical sampling, as a purposeful and iterative approach, allows researchers to strategically select participants based on emerging theoretical insights, resulting in robust theoretical frameworks grounded in empirical data. Real-world case studies illustrate the practical application of theoretical sampling in two distinct research inquiries, showcasing how this approach enables the exploration of diverse perspectives and experiences, enhancing the depth and complexity of qualitative research outcomes. By employing purposeful sampling strategies, such as maximum variation, homogeneous, criterion, and snowball sampling, researchers can capture nuanced insights and reach theoretical saturation. Methodological considerations and ethical implications are discussed, underscoring the importance of addressing ethical issues in qualitative interviews and data analysis. Ensuring rigor and trustworthiness in the research process and identifying potential biases contribute to the credibility of qualitative findings. The insights from this research paper have implications for researchers and practitioners, emphasizing the need for theoretical sensitivity, purposeful sampling strategies, ethical diligence, reflexive practices, and transparency in qualitative research. The transformative potential of theoretical sampling lies in its capacity to uncover hidden complexities, explore diverse perspectives, and contribute meaningfully to academic discourse and evidence-based practice, fostering the advancement of knowledge in diverse disciplines.

Keywords: Theoretical sampling, Qualitative research, Interview-based research, Data richness, Theoretical saturation, Purposeful sampling, Ethical considerations, Grounded theory

1. Introduction

A potent technique for getting in-depth understandings of human experiences, social events, and complex phenomena that cannot be fully represented using quantitative methodologies is qualitative interview-based research (Qureshi, 2018; Nelson, 2015). By conversing with participants, this research approach encourages individuals to share their ideas, sentiments, and viewpoints in their own words (Nelson et al., 2015). Qualitative interviews provide for a more in-depth knowledge of various viewpoints, cultures, and contexts by focusing on the subjective experiences of individuals and groups (Alordiah et al., 2023; Chai et al., 2021).

Qualitative research has grown in popularity throughout time in a number of academic fields, including sociology, psychology, anthropology, education, and medicine. (Castleberry & Nolen, 2018). In order to develop a nuanced and thorough knowledge of the researched phenomena, qualitative interview-based research has become essential as academics work to comprehend the complexities of human behavior and the social fabric.

Theoretical sampling, a crucial element of qualitative interview-based research, is essential for improving the rigor and depth of study findings (LaDonna et al., 2021). Theoretical sampling, in contrast to conventional random or convenience sampling, is driven by theoretical concerns rather than statistical representativeness (Robinson et al., 2014). Researchers can carefully choose participants using this deliberate selection technique based on new theoretical discoveries from ongoing data analysis.

The importance of theoretical sampling rests in its capacity to encourage the exploration and development of theoretical ideas while ensuring that

they are based on the rich empirical information gathered during interviews (Cleary et al., 2014). Theoretical sampling encourages researchers to look for fresh participants who may offer a variety of viewpoints, distinct experiences, and tough examples that test the limits of the developing theory through an iterative process (Ligita et al., 2019).

This research paper's main goal is to perform a thorough investigation of the theoretical underpinnings and deliberate sampling techniques used in qualitative interviews. We want to shed light on the epistemological foundation of theoretical sampling and its alignment with the principles of qualitative research by exploring the theoretical underpinnings. This article also seeks to clarify the several deliberate sampling techniques that researchers might use during qualitative interviews. Researchers are better equipped to choose participants and plan studies when they are aware of the intricacies of each technique and how well it fits into various research contexts. This paper aims to shed light on the fundamentals of theoretical sampling in qualitative interview-based research, provide academics with insightful information to improve their own research projects, and promote knowledge in the fields in which they work.

2. Qualitative Interview-Based Research

The concept of theoretical sampling, a deliberate and planned sampling technique that goes beyond the usual conceptions of random or convenience sampling, is the basis of qualitative interview-based research (Foley et al., 2021). Sociologists Barney G. Glaser and Anselm L. Strauss initially presented theoretical sampling in their important work., "The Discovery of Grounded Theory" (Mohajan & Mohajan, 2023; Glaser et al., 1968) The grounded theory method, stressing the integration of data collection and analysis to develop theoretical frameworks from the ground up, is at the core of theoretical sampling (Ligita et al., 2019). A sampling technique used in qualitative research, notably in grounded theory methodology, is theoretical sampling. On the basis of new theoretical understandings and the developing theoretical framework, study participants are chosen in an intentional and iterative manner. The main objective of theoretical sampling is to carefully acquire data that will help create and improve a theory that is born from the data itself (Davoudi et al., 2016). Theoretical sampling is flexible and dynamic, in contrast to conventional random or fixed sampling approaches. Researchers continually seek for new participants and data sources that can supply rich and diverse information connected to the changing theoretical notions, which entails ongoing data collecting and analysis (Butler et al., 2018).

The theoretical sampling process starts with an initial sample of individuals, who are often selected based on accessibility or convenience. Theoretical ideas, themes, and patterns start to develop when the researcher begins to examine the data. The researcher now makes use of these growing hypotheses to direct the choice of future volunteers (Yang et al., 2021). The choice of new participants is not arbitrary; rather, it is deliberate and focused at finding individuals who can provide distinctive and different viewpoints that question, support, or expand the evolving theoretical framework (Butler et al., 2018). After analyzing the data gathered from the new participants, the theoretical sampling procedure is repeated until theoretical saturation is reached. When new data no longer provide significantly new insights or dimensions to the evolving theory, theoretical saturation occurs, indicating that the theoretical framework has established and finished (LaDonna et al., 2021).

The results of qualitative research are given more credibility and validity thanks to theoretical sampling, which enables researchers to construct a solid and well-grounded theoretical framework straight from the data (Foley et al., 2021; Moorley & Cathala, 2019; Qureshi, 2018; Davoudi et al., 2016). It is often employed in social sciences, anthropology, sociology, and other academic fields where scholars aim to comprehend intricate societal phenomena and intimate human experiences in-depth. Researchers actively choose people and places for theoretical sampling based on newly discovered theoretical insights from ongoing data analysis. With contrast to other sample methods, theoretical sampling is based on dynamic criteria that change as researchers get more and more engrossed in the data (Gentles et al., 2015). Researchers regularly switch between data gathering, analysis, and theory creation in this iterative and cyclical process to hone and deepen the emerging notions. The objective is to identify fresh contributors who can offer a variety of viewpoints and distinctive situations that test and broaden the theoretical knowledge of the issue under study.

The groundbreaking work of Glaser and Strauss in the 1960s can be linked to the historical growth of theoretical sampling. Their ground-breaking investigation into the experiences of people with chronic illnesses resulted in the establishment of theoretical sampling as a technique for methodically gathering information to advance grounded theory. By highlighting the significance of theoretical sensitivity

and theoretical sampling in the development of substantial theories, Glaser and Strauss' avant-garde methodology transformed qualitative research (Conlon et al., 2020). Since its introduction, several academics in the field of qualitative research have continued to develop and perfect theoretical sampling. Researchers like Adele E. Clarke and Kathy Charmaz have significantly advanced the theoretical and methodological elements of theoretical sampling and grounded theory (Bick, 2021; Huby, 2011). Due to these improvements, theoretical sampling has cemented its status as a reliable and rigorous method for examining complex social processes (Sedano et al., 2017).

Recognizing the philosophical basis of qualitative research is crucial in order to comprehend the epistemological justifications of theoretical sampling. The constructivist and interpretivist foundations of qualitative inquiry emphasize the subjective aspect of reality and the value of seeing social processes from the viewpoints of the participants (Ataro, 2020). According to its epistemology, qualitative research aims to discover the meanings and interpretations that people assign to their experiences, acts, and relationships. (Alordiah et al., 2023; Cugno & Thomas, 2016). By giving priority to the formation of theoretical conceptions based on the participants' actual experiences, theoretical sampling fully complements the interpretivist paradigm. It recognizes the interaction between the researcher and the participants and that gathering data and analyzing it are mutually inclusive processes. (Cowan et al., 2020). The co-construction of knowledge between the researcher and the participant is made possible by this epistemological attitude, which helps researchers to traverse the complexity of human experiences, cultural settings, and social interactions.

The role of theoretical frameworks, which act as the support structure for the deliberate sampling process, is essential to theoretical sampling. Theoretical frameworks are a collection of first notions or concepts that come to light during early data analysis and direct the choice of further participants. As fresh evidence is gathered and examined, these frameworks are continuously improved, resulting in a cohesive and developing theoretical structure. (Garvey & Jones, 2021).

The choice of participants is influenced by theoretical frameworks, which can have an impact on the size and focus of the study enquiry. They aid researchers in identifying information gaps, regions of theoretical saturation, and chances to investigate new facets of the phenomena (Alordiah, 2023; Alordiah & Ossai, 2023; van Rijnsoever, 2017). Researchers may triangulate data from many sources and participants and the repetitive nature of theoretical sampling promotes a greater understanding of the underlying patterns and variances in the data. (Ligita et al., 2019).

3. Purposeful Sampling Strategies in Qualitative Interviews

In qualitative research, a systematic strategy called purposeful sampling is used to purposefully choose participants. Purposeful sampling entails a planned and careful selection method that is in line with the study aims, as opposed to random or convenience sampling, which depends on chance or ease of accessible (Alordiah et al., 2023). Purposeful sampling's main objective is to make sure that the selected participants deliver worthwhile and pertinent information, enhancing the variety and depth of insights obtained through qualitative interviews. (Benoot et al., 2016).

Maximum variety sampling is a deliberate sampling technique that aims to include people with a range of views, viewpoints, and life events. With this strategy, participants are purposefully chosen who have a wide range of important characteristics, such as age, gender, socioeconomic level, educational attainment, or geography. (Lam et al., 2014). Maximum variety sampling tries to capture the complete range of experiences and opinions relevant to the study issue by recruiting a diverse group of participants.

The ability to produce thorough insights and a detailed understanding of the topic under study is the heart of maximum variation sampling. Researchers can find patterns, themes, and commonalities that go beyond participant differences by evaluating the similarities and differences among individuals. This sample technique enables researchers to investigate the subtleties and differences present in the setting being researched, producing data that is rich and multidimensional. (Plakoyiannaki & Budhwar, 2021).

Contrary to maximum variation sampling, homogeneous sampling entails carefully choosing individuals who have similar features, attributes, or experiences that are pertinent to the study issue. This strategy seeks to thoroughly examine the similarities, shared experiences, or viewpoints within a certain subgroup of interest. Researchers may dive extensively into the distinctive characteristics and subtleties of a particular demographic or social group using homogeneous sampling, illuminating their distinctive viewpoints and actions. (Benoot et al., 2016). Researchers can find deep and context-specific insights by focusing on a homogenous group that

would be missed in more varied samples. This focused technique is particularly useful for examining phenomena that are culturally distinctive or investigating subgroups that have common experiences since it offers a thorough grasp of the common ideas, values, and behaviors within the group.

Utilizing preset criteria that are crucial to the study issue, participants are chosen through criterion sampling. The qualities, experiences, actions, or even particular occurrences connected to the phenomena under study might serve as these criteria. Before gathering data, the researcher defines these standards and bases participant selection on them. (Jamrozy & Lawonk, 2017). When doing research to examine a particular element or aspects of the phenomena being examined, criteria sampling is useful because it enables the researcher to concentrate on individuals who have experienced or displayed the pertinent criterion. (Oostrom et al., 2015). As opposed to using larger sampling techniques, researchers can more effectively collect data by focusing on people who fit certain criteria, which saves time and money.

Chain referral sampling, usually referred to as snowball sampling, is a deliberate sampling approach frequently used to explore groups who are difficult to reach or persons who are not readily available using conventional sample methods. The earliest participants in a snowball sample include (or "seeds") are selected based on their knowledge of the target population or group of interest (Alordiah et al., 2023; Naderifar et al., 2017). Following the initial interview, subjects are requested to recommend other possible subjects who have pertinent experiences or expertise about the study's subject. A snowball effect is produced as a result of the repetitive referral procedure, resulting in the participation of more people. Researching hidden or marginalized populations, such as drug users, crime victims, or members of stigmatized groups, might benefit greatly from snowball sampling.

4. Theoretical Sampling in Relation to Other Sampling Techniques

The intrinsic flexibility and adaptability of theoretical sampling sets it apart from other sampling methods. Theoretical sampling evolves dynamically in response to developing theoretical insights from ongoing data analysis, unlike other sampling procedures that are frequently decided upon at the beginning of the project and stay static during data collecting. (Ligita et al., 2019).

The link between theoretical sampling and deliberate sampling methods is one of enrichment rather than exclusion. Maximum variation, homogenous, criteria, and snowball sampling are a few examples of deliberate sampling techniques that are included in theoretical sampling and are used as parts of the iterative data collecting process. (Qureshi et al., 2018). Theoretical sampling is a potent and adaptable method in qualitative interview-based research because it allows researchers to continually develop and extend their theoretical knowledge through the strategic use of intentional sampling within the larger theoretical sampling framework. In qualitative interviews, deliberate sampling techniques provide a methodical and deliberate way to choose participants who are in line with the study's goals. Each technique has a specific goal, allowing researchers to customize their sample strategy to examine different angles of the study issue. Researchers can better understand the complexity and subtleties of human experiences, behaviours, and social phenomena through the interaction between theoretical sampling and intentional sampling techniques (Palinkas et al., 2015).

5. Ensuring Data Richness through Theoretical Sampling

The constant interplay between theoretical sampling and data collecting is key to ensure data richness in qualitative research. Theoretical sampling, in contrast to conventional sampling techniques, is constantly evolving in response to new theoretical understandings revealed by data analysis. As researchers conduct interviews and examine the data gathered, new trends, themes, and theoretical concepts appear. These observations help researchers choose subsequent participants by pointing them in the direction of people who may offer a variety of viewpoints and distinctive experiences that deepen theoretical comprehension. (Gentles et al., 2015).

Researchers may explore and evaluate new theoretical notions in real-time because to the iterative nature of theoretical sampling. Researchers can improve and broaden their theoretical frameworks by actively searching out data that contradicts or supports preexisting theoretical assumptions. The richness and depth of the qualitative results are enhanced by this collaborative approach, which makes sure that the data is not only linked with the research topic but also firmly grounded in the theoretical foundations. (Ligita et al., 2019).

During qualitative interviews, developing rapport and trust with participants is essential for assuring data richness. They can freely share their experiences and

points of view in a safe environment when participants are treated with kindness and empathy. Participants are more inclined to open up and express themselves honestly when they feel appreciated and at ease, which produces data that is more detailed and complex.

By showing empathy, active listening, and a sincere interest in the participants' stories, researchers can build rapport with their subjects. Participants can discuss delicate or personal experiences in a supportive and judgment-free setting, adding to the depth and complexity of the data. Additionally, researchers should be open and honest about their goals for the study, ensuring that participants are aware of its purpose and how their input will influence its findings.
In order to get participants to respond with rich, in-depth information during qualitative interviews, probing tactics and open-ended questions are essential. By asking follow-up questions, probing encourages participants to clarify unclear remarks, expand on their original replies, or consider fresh angles on their experiences. Participants may think more thoroughly about their experiences thanks to this repeated process of probing and elaboration, which reveals underlying levels of meaning. (Foley et al., 2021).

Open-ended questions provide participants the option to react in their own words and express their experiences truthfully, as opposed to closed-ended questions that generate brief and specific replies. These questions' open-ended format encourages participants to express their ideas, sentiments, and viewpoints without regard to preconceived limitations, resulting in information that is contextually rich and significant.

Researchers must use techniques that draw out subtleties, feelings, and contextual information from qualitative data in order to ensure data richness. A special chance to dive into the complexity and subjective elements of human experiences is provided by qualitative interviews. (Plakoyiannaki & Budhwar, 2021). Researchers can achieve this by employing various techniques such as:

Thick description: Including colourful and in-depth accounts of people' experiences and environments to show how rich the background is. (Roystonn et al., 2021).
Reflexivity: Acknowledging the researcher's influence on the research process and how their own perspectives may shape data collection and analysis (Cayir et al., 2021).
Documenting non-verbal cues: Examining body language, gestures, and nonverbal cues during interviews to pick up on emotions and unsaid thoughts (Griffiths et al., 2020).
Contextual inquiry: To enhance the depth and complexity of the data, consider the larger social, cultural, and historical factors that affect participants' experiences. (Gümüsay & Amis, 2020).

The effectiveness of theoretical sampling depends heavily on the repetitive nature of data collecting in qualitative interviews. Researchers constantly participate in a process of theoretical creation and refinement as they gather and analyse evidence. Researchers are guided to discover holes in the current theoretical framework and to look for participants who can provide crucial data to fill those holes by new insights and developing patterns.

The iterative method also enables researchers to reach theoretical saturation, a condition in which accumulating more data no longer generates significantly fresh ideas or thoughts. The theoretical framework has achieved a point of completion when it reaches theoretical saturation, assuring rich data and a solid foundation for the study findings. (LaDonna et al., 2021).

Additionally, the repetitive nature of data collecting in theoretical sampling allows researchers to keep their technique flexible and adaptable. Researchers may modify their interview questions, sample standards, or data processing procedures when new theoretical notions emerge, promoting a more organic and responsive research process.

Building rapport and trust with participants, using probing approaches and open-ended questions, and utilizing tactics to capture subtleties, emotions, and contextual information are all necessary for ensuring data richness through theoretical sampling. Researchers can improve theoretical frameworks, reach theoretical saturation, and gain significant insights into the complexity of human experiences and social phenomena thanks to the repetitive nature of data gathering, which increases its adaptability and flexibility.

6. Theoretical Saturation: Reaching the Point of Knowledge Closure

A crucial idea in qualitative research is the concept of theoretical saturation, which describes the moment at which data collection and analysis have produced enough knowledge to create a thorough and cohesive theoretical framework. It is the point when researchers have examined a variety of viewpoints and experiences connected to the study issue and have

attained a degree of data saturation where additional data collecting does not yield any fresh or noticeably different insights. (Low et al., 2019).

The importance of theoretical saturation is found in its contribution to obtaining knowledge closure, which makes sure that the qualitative investigation has produced reliable and substantial results. Researchers can be sure they have fully investigated the topic under study and documented the different aspects and complexity inherent in the participants' experiences once they have reached theoretical saturation. As it reveals the breadth and depth of the data, theoretical saturation strengthens the validity and reliability of the study findings and produces a more persuasive and convincing theoretical understanding. (Weed, 2017).

Whether assisting researchers in determining when they have arrived to the point of knowledge closure, it is critical to identify indications and criteria for theoretical saturation. While theoretical saturation is a subjective concept that depends on the nature of the research question and the complexity of the studied phenomenon, several indicators can signal that saturation is approaching:

- A point of saturation may be nearing when data analysis shows that themes and patterns are repeatedly occurring across people and data sources. Recurring comparable findings show that the main concepts have been properly investigated.
- Theoretical saturation may be present when fresh facts only confirm or strengthen preexisting ideas and theories without offering any fundamentally new information. The information no longer offers significant new contributions to the field of study. (LaDonna et al., 2021).
- It shows that theoretical saturation is approaching as the theoretical framework gets more extensive and cohesive, embracing many aspects of the phenomena (Garvey & Jones, 2021).
- Saturation may have been reached when researchers notice they are no longer coming across novel theoretical insights or conceptual concepts when doing data analysis or conducting interviews (LaDonna et al., 2021).

To assess and confirm theoretical saturation, researchers can employ several strategies:

Triangulation: Findings are validated and supported by using a variety of data sources, including observations, interviews, and written materials. Triangulation aids to confirming theoretical saturation and strengthens the validity of the theoretical framework.

Member Checking: Sharing early results and interpretations with participants to include them in the study process. Member checking increases the study's rigor and confirmability by enabling participants to validate the accuracy of the researcher's interpretations (Brear et al., 2019).

Peer Debriefing: Conversing with colleagues or other researchers to exchange and discuss newly discovered information. Peer debriefing offers a different viewpoint on the researcher's interpretations and can be used to spot biases or areas that need more inquiry (O'Connor et al., 2017).

Negative Case Analysis: Paying particular attention to data that questions or contradicts emerging theoretical conceptions. Negative case analysis can help avoid premature closure and make sure that all pertinent aspects of the phenomena have been investigated (Lebni et al., 2020).

Researcher Reflexivity: Reflective techniques should be used throughout the research process to recognize and take into account the researcher's impact on data gathering and analysis. Reflexivity aids in the critical assessment of researchers' presumptions and any biases, strengthening the theoretical framework (Cumming-Potvin et al., 2013).

In qualitative research, theoretical saturation is a desirable objective, but getting there can be difficult and have its constraints. One issue is that because theoretical saturation is subjective, different researchers may have different interpretations of when saturation is attained. Furthermore, the complexity of the study question and the variety of participants may have an impact on the amount of time and effort needed to reach saturation (Davoudi et al., 2016).

Additionally, time and resource limitations may prevent researchers from collecting and analyzing as much data as is required to attain theoretical saturation. Saturation in difficult-to-reach or concealed communities may occasionally be challenging due to access restrictions on populations or groups.

Illustrations

Example: Unraveling the Impact of Remote Work on Teachers Well-Being

Research Question: How does the transition to remote work during the COVID-19 pandemic affect the well-being of teachers in different sectors?

In this case study, the researcher can investigatesthe impact of remote work on teachers well-being during

the COVID-19 pandemic. Theoretical sampling can be utilized to explore how this phenomenon varies across nursery, primary, secondary, and tertiary institutions. The researcher initially interviews teachers from various sectors, such as nursery, primary, secondary, and tertiary institutions, to gain a broad understanding of the challenges and benefits of remote work. As data analysis progresses, theoretical concepts such as "work-life integration," "perceived institutional support," and "technostress" emerge as central themes. To achieve theoretical saturation, the researcher strategically selects participants from teaching fields that have been underrepresented in the initial sample. For example, interviewing teachers in the private nursery, primary, secondary, and tertiary institutions, may reveal unique challenges related to remote collaboration and the impact on creativity and innovation. A thorough knowledge of the intricate interactions between work arrangements, well-being, and institutional assistance throughout the epidemic is possible through theoretical sampling, which enables the researcher to capture the intricacies of the distant work experience in many educational institutions.

In example, deliberate sampling allowed the researcher to investigate the special difficulties and possibilities related to remote teaching and learning in different educational sectors. A thorough investigation of the complex effects of remote work on teachers' well-being was made possible through theoretical sampling, which also revealed viable institutional actions to assist remote teachers efficiently. These examples make clear how important theoretical underpinnings are in guiding the research process and affecting the results. The systematic study of new theoretical ideas and subjects has been made easier by theoretical sampling, which is driven by grounded theory principles. It enabled the construction of robust and theoretical frameworks with a strong contextual foundation by enabling the researchers to repeatedly choose participants to reach data richness and theoretical saturation. Additionally, the depth and breadth of the study findings have increased as a result of the implementation of intentional sampling techniques within the theoretical sampling framework. The example have demonstrated the flexibility of purposeful sampling in gathering different viewpoints and producing nuanced understandings of complex phenomena by purposefully choosing participants based on theoretical ideas. The example show how theoretical sampling enables researchers to elucidate profound and contextually pertinent discoveries, advancing knowledge in their respective domains. An important reminder of the iterative and dynamic character of qualitative research, where theory and data continually feed and develop one another, is the importance of theoretical underpinnings in the research process.

7. Methodological Considerations and Ethical Implications

Qualitative interviews and theoretical sampling involve engaging with participants at a deeply personal level, making ethical considerations paramount in the research process. Researchers must prioritize the well-being, autonomy, and confidentiality of participants while conducting the study. Several ethical issues warrant attention:
Researchers must obtain informed consent from participants, providing clear and comprehensive information about the study's purpose, procedures, risks, and benefits. Participants should have the freedom to voluntarily participate or withdraw at any stage without facing repercussions (Alordiah et al., 2022).

Ensuring confidentiality and anonymity is vital to protecting participants' privacy. Researchers should use pseudonyms and secure data storage methods to safeguard participants' identities (Elhai & Hall, 2015). After interviews, researchers should offer debriefing sessions to participants, addressing any emotional or psychological concerns that may have arisen during the research process. Providing access to support resources, such as counseling services, is essential when studying sensitive topics.

Researchers should be mindful of their power and influence in the research process, recognizing that participants may be vulnerable due to their experiences or backgrounds. Researchers must maintain respectful and egalitarian relationships with participants, avoiding exploitation or coercion (Ben-Ari & Enosh, 2013).
To enhance the rigor and trustworthiness of qualitative interviews and theoretical sampling, researchers can employ various strategies:

- Researchers should reflect on their own biases, assumptions, and experiences that may influence data collection and analysis. Transparently documenting researcher reflexivity allows readers to assess the potential impact of the researcher's background on the study (Folkes et al., 2022).
- Using multiple sources of data, such as interviews, observations, and documents, to cross-validate findings can enhance the credibility and reliability of the study's conclusions.

- Engaging participants in the research process by sharing preliminary findings and interpretations with them for validation. Member checking allows participants to verify the accuracy of their representations, adding to the study's trustworthiness.
- Seeking feedback from other researchers or experts in the field can offer valuable insights and constructive critique, strengthening the study's methodology and theoretical foundations (Gentles et al., 2015).

8. Conclusion

This research paper researched into the role of theoretical sampling in qualitative interview-based research, focusing on its significance in ensuring data richness and theoretical saturation. Theoretical sampling, as a purposeful and iterative sampling method, allows researchers to strategically select participants based on emerging theoretical insights, leading to the development of robust theoretical frameworks grounded in empirical data. The paper exemplified the practical application of theoretical sampling. The example demonstrated how theoretical sampling facilitates the exploration of diverse perspectives and experiences, enriching the depth and complexity of qualitative research outcomes. By employing purposeful sampling strategies such as maximum variation, homogeneous, criterion, and snowball sampling, researchers can capture nuanced insights and reach theoretical saturation. The paper also discussed methodological considerations and ethical implications, highlighting the importance of addressing ethical issues in qualitative interviews and data analysis. Ensuring rigor and trustworthiness in the research process, as well as identifying potential biases, contributes to the credibility of qualitative findings.

9. Implications for Researchers and Practitioners in the Field

The insights presented in this research paper hold several implications for researchers and practitioners in the field of qualitative research:

- Researchers should develop a high level of theoretical sensitivity, allowing them to identify and explore emerging theoretical concepts as data collection and analysis progress. The iterative nature of theoretical sampling necessitates a reflexive approach to data collection and theoretical development.
- Researchers should carefully consider the selection of purposeful sampling strategies that align with the research objectives. The case studies provided a comparative analysis of different approaches, offering guidance for researchers in selecting the most appropriate strategy for their study.
- Ethical diligence in qualitative interviews and data analysis is paramount. Researchers must prioritize participants' well-being, privacy, and autonomy, adhering to informed consent, confidentiality, and debriefing practices.
- Researchers should engage in reflexive practices throughout the research process and transparently document their methodological choices. Reflexivity allows for a critical examination of the researcher's influence on the study, while transparency enhances the credibility and trustworthiness of the research.

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Part Four

Social Psychology

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Communication and Married Couples in Lagos Metropolis

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Abstract. The study examined the role of communication among married couples in Lagos Metropolis. Primary data were obtained through structured questionnaire administered to 250 married couples in Lagos State, Nigeria. Data were analyzed using frequency counts, percentages, mean, standard deviation and Pearson Product Moment Correlation. The mean time married couples sample communicated on daily basis was 2 times with 32.5% indicated that they communicate between 1-2 times per day. Respondent knew that communication is the key to a successful marriage ($\bar{X}$ =3.61). The major factors responsible for lack of effective communications among married couples in Lagos state were; sexual dissatisfaction ($\bar{X}$ =3.72), and finance status ($\bar{X}$ =3.64) and single word responses ($\bar{X}$ =3.69). PPMC analysis revealed a significant relationship ($p<0.01$) between level of educational($r=0.124$), religiosity ($r=0.117$), level of income ($r=-0.093$) of the respondents' and the frequency of communication. The study concluded that respondents' level of education, religiosity and level of income had influence on effective communications among married couples. The study therefore recommended that religious institutions should provide adequate materials and seminars for couples in order to increase effective communication between couples.

Keywords: Communication, Couple, Lagos, Marriage, Relationship, Role

1. Introduction

A legal commitment like marriage has important ramifications for the family as a whole as well as the pair being married. In addition to strengthening the couple's bond, it creates different tiers of relationships within the family. It is common knowledge that married couples are supposed to support one another in a variety of areas, such as handling financial obligations, having sex, and having and raising children. The degree of contentment and harmony a couple experiences in their marriage has a significant impact on the bond a family has as a whole. However, wedlock in Nigeria can take many different forms depending on the tribe; it is just the union of a man and a woman who have chosen to live out the remainder of their lives together. Matrimony is a contract between a man and a woman that is meant to result in a fulfilling relationship whereby the married pair enjoys marital contentment that improves the individuals' mental and physical health. One of the most significant turning points in a person's social and personal growth is marriage. It is regarded as the most significant social unit, and a variety of elements contribute to its power and stability. Thus, the most significant predictor of married people's psychological well-being, according to Khorasani, Hosseini, Matbouei, Khafri, Vasli and Vardanjani (2017), is the quality of their marriage. Married people's pleasure with their marriage and their connection is one of the key criteria that determine the fate of their marriage, according to Khorasani *et al.* (2017). A long-term, committed marriage is frequently regarded as a primary life goal and a crucial sign of marital success as well as wellbeing and health, both in research and in daily life (Fincham and Beach 2010). Humans communicate by sending and receiving messages to one another. It also refers to the process by which ideas, facts, attitudes, sentiments, and beliefs are communicated amongst people. Not only can non-verbal cues and symbols be used to convey meaning, but listening, silences, body posture, touch, facial expressions, and gestures are also forms of nonverbal communication. To put it succinctly, it might refer to all the ways in which individuals communicate their thoughts and emotions in an effort to influence and comprehend one another (Rice, 2017). In a marriage, communication is vital because it allows partners to share their needs, desires, and worries with one another. Couples can express their

differences as well as their love and appreciation for one another in an environment that is created by open and honest conversation. Couples are able to work out the inevitable issues that crop up in every family by communicating with one another. Problems and conflicts in the marriage are a necessary part of the process that makes married couples more mature.

In marriages, communication is crucial. Over time, many marriages' growth and development have been impacted by inadequate and ineffective communication. Effective communication is seen to be essential to the development of a healthy marriage (Esere, 2016). It is impossible to build a supportive connection that can lead to changes in values, attitudes, feelings, knowledge, beliefs, and eventually habits and practices without effective communication (Esere, 2018). This may be the case since relationships, particularly married connections, depend on communication for their growth, upkeep, decline, or end (Ojiah, 2004). However, effective communication is a key component of happy marriages. There cannot be any growth between married partners without communication; it is impossible to overcome misunderstandings, disagreements, or sexual unhappiness without it. Many family dissolutions can result from poor communication. When it comes to troubled marriages, communication is the missing piece and a crucial instrument for keeping a marriage stable.

In order to accomplish sexual objectives in a marriage, communication involves both spoken and unspoken signals. Although verbal cues play a significant role in sexual communication, nonverbal cues are also crucial. Similar to nonverbal cues, verbal cues influence the course of a sexual episode, play a role in the sexual act, and help to create shared meaning within a relationship (La France, 2010). Among other things, these functions depend on spoken communication and the particular language that people speak. But research on married people's sexual language has been scant, particularly when compared to nonverbal communication. Nor has there been much discussion of the potential link between married people's use of sexual language and the success of their relationships.

Achieving sexual desire outcome, courting one another, and creating shared meaning about a couple's sexual life are just a few examples of the communication parts of the action that require good coordination between partners to achieve desired sexual outcomes. One aspect linked to (dis)satisfaction in relationships and sexuality is communication (Byers, 2015). According to experts, married people frequently communicate about sex less effectively than single people. According to certain study, general marital contentment is more closely correlated with effective communication among spouses than it is with sexual fulfillment.

Clinicians examine the psychologically abandoned wife who is deprived of the comfort of confiding in her spouse and whose recurring complaint is that "he never talks to me" (Buss, 2017). When women feel empowered to discuss issues with their spouses and take charge of conflict resolution, their relationships are more satisfying. That being said, not all communication is beneficial to a marriage. Problems are not always resolved by the act of communication. Expressing emotions and discussing the situation could make it worse. "Engagement can result in escalation," as one author put it (Caughlin and Vangelisti, 2010).

Tension and estrangement can rise when partners freely express unpleasant emotions that one cannot manage. In order to preserve marital peace, some couples choose to forego such disclosure, pretend to agree, or purposefully tell lies. It is not sufficient to merely communicate; dialogue needs to be productive, with carefully chosen words and moments. According to one study, couples that communicated in an easygoing, warm, direct, focused, expressive, and exact manner experienced higher levels of marital happiness (Panda, 2011).

1.1 Statement of the Problem

Married couples are currently discussing communication issues a lot. They use an emotional mechanism to subdue these urges when communications are not understood. Effective communication has been ranked lowest in the hierarchy of marital needs; however, it is important to remember that effective communication is formed in relation to human basic needs, which include love, sexual satisfaction, mental security, and respect. This leads to people's expectations regarding sexual relationships. Therefore, the completion of family harmony and couples' alone enhance the calibre of successful communication. People's propensity to create barriers to communication can be attributed to a variety of factors, including psychobiological causes (such as lowering stress, enjoyment, normal physical conditions and experience seeking), goal achievement causes (such as resources, social class, retaliation, and profiteering), emotional causes (such as love and commitment), and mental insecurity causes (such as lowering self-esteem, duty/stress). In filling this gaps, the study therefore investigate communication and

married couples in Lagos metropolis. Sequel to this reason, the study set to investigate the following:

1.2 Objectives of the Study

- To ascertain the socio-economic characteristics of the respondents'
- To investigate frequency of communication among married couples in Lagos state;
- To examine the knowledge of couples on communication in Lagos state;
- To determine the factors responsible for lack of effective communications among married couples in Lagos state; and
- To ascertain explanation to ineffective communications among married couples in Lagos state.

1.3 Hypotheses of the Study

The hypotheses of this study are stated in their null form as follows:

- There will be no significant relationship between
- $H0_1$: There is no significant relationship between level of education and frequency of communication among married couples in Lagos state.
- $H0_1$: There is no significant relationship between religiosity and frequency of communication among married couples in Lagos state.
- $H0_1$: There is no significant relationship between level of income and frequency of communication among married couples in Lagos state.

2. Literature Review

All living creatures have an innate instinct for communication. Communication is the transmission of information between two entities at its most basic level. It has been seen to occur between microorganisms at the cellular level and, on a larger scale, between members of a herd trying to escape a predator (Panda, 2011). As contemporary humans navigating a hectic environment, effective communication is essential to our daily survival. Every contact we have with other people, whether it is a simple wave to your family when you pull out of the driveway in the morning or a furrowed brow in a crowded checkout lane, is a kind of communication. Today, communication has gone from individual levels of conversing to mass communication. The most important aspects of communication are best understood when there is a lack of it. Transferring information from one entity to another is not the only function of effective communication. It is an art to absorb information through reading or listening it first, process it, and then apply it. A tremendous lot of work goes into effective communication. Among the crucial elements of communication are spoken language, body language, gestures, and voice intonation. The procedure fails if any of these variables are not understood by the other party (Caughlin & Vangelisti, 2010).

Wedlock, matrimony or marriage is another term for the culturally accepted union of individuals referred to as spouses. According to Haviland, Prins, McBride, Walrath and Dana (2011), it creates rights and obligations between them as well as between them and their offspring and in-laws. Though the concept of marriage varies throughout time and among countries and religions, it is nevertheless seen as a cultural universal. It is usually an institution that recognises or condones interpersonal interactions, most of which are sexual. It is customary in certain cultures to wait until marriage to engage in any kind of sexual behaviour. A wedding is an event that celebrates marriage.

Marriage can be arranged legally, socially, for libidinal, emotional, economical, spiritual, or religious reasons, among others. Gender, socially prescribed incest norms, prescriptive marriage laws, parental preference, and personal desire can all have an impact on who they marry. Polygamy, forced marriage, child marriage, and planned marriage are all common practices in some parts of the world. In other places, such actions are prohibited by international law or to protect the rights of women, children, and both genders. Women's rights have historically been curtailed by marriage since they are occasionally viewed as the husband's property. Globally, particularly in developed democracies, there has been a general trend towards legalising same-sex, interfaith, and interracial marriages as well as ensuring equal rights for women in marriage (e.g., by outlawing coverture, liberalising divorce laws, and reforming reproductive and sexual rights). The legal standing of married women, attitudes towards domestic abuse in marriage, traditions including bride prices and dowries, forced marriage, marriageable age, and the outlawing of extramarital and premarital sex are all topics of ongoing debate. A state, an organisation, a religious body, a tribe, a neighbourhood, or peers can all acknowledge marriage. It's frequently seen as an agreement. An institution of religion performs a religious marriage in order to establish and acknowledge the privileges and duties inherent in matrimony within that religion. Religious marriage is

referred to by a variety of names in different faith traditions, including nikah in Islam, nissuin in Judaism, and sacramental marriage in Catholicism. Each of these titles has specific guidelines on who is eligible for and what qualifies as a legitimate religious marriage (Bell, 2017).

A marriage is considered civil when it is conducted by a government agency, without reference to religion, and in compliance with local marriage regulations. In the viewpoint of the state, civil marriage both establishes and acknowledges the rights and duties inherent in matrimony. Certain nations demand a separate civil marriage for official purposes, and do not recognise religious marriages done locally on their own. On the other hand, some nations with religious legal systems—like Saudi Arabia—do not allow for civil marriage. In this country, weddings consummated outside of Saudi Arabia may not be recognised if they were consummated in violation of Saudi interpretations of Islamic religious law. Civil marriages performed abroad may be recognised by the state even if they violate religious laws. In nations like Israel and Lebanon that have a mixed secular-religious legal system, locally performed civil marriages are not permitted. As a result, interfaith and other marriages that violate religious laws cannot be consummated within the nation. For instance, when it comes to the recognition of marriage in Israel, this covers both same-sex and interfaith civil marriages that are consummated abroad. The majority of sovereign nations and other jurisdictions only allow marriage between people of the same sex, and fewer of them still allow forced marriages and child marriage. Nowadays, an increasing number of nations—mostly industrialised democracies—have abolished laws that prohibited same-sex, interfaith, and interracial weddings and provided legal recognition for them. Despite national laws prohibiting the practice, underage marriages and polygamy may nevertheless occur in some places.

2.1 Theoretical Framework

A theoretical and methodological approach to social theory known as Actor-Network Theory (ANT) holds that all that occurs in the social and natural worlds is made up of dynamic networks of relationships. It asserts that there is nothing outside of those connections. Since every aspect of a social situation is equal, there are no outside social forces influencing the current interactions between network members. As a result, it is believed that in constructing social circumstances, objects, concepts, procedures, and any other pertinent elements are just as significant as people.

According to ANT, social forces cannot be employed to explain social phenomena because they do not exist in and of themselves. Strictly empirical analysis ought to be done in order to "describe" as opposed to "explain" social behaviour. The idea of social forces cannot be introduced until after this point, and even then, only as an abstract theoretical idea and not as anything that actually exists in the real world (Muniesa, 2015). ANT is most recognised for its contentious insistence on nonhumans' ability to act, participate, or both in systems and networks, but it is also linked to forceful criticisms of both traditional and critical sociology. It is technically a "material-semiotic" method, having been developed by scholars in science and technology studies (STS), including Michel Callon, Bruno Latour, sociologist John Law, and others. This means that it maps relations that are simultaneously material (between things) and semiotic (between concepts). It assumes that many relations are both material and semiotic.

In general, ANT is a constructivist approach because it steers clear of essentialist explanations of innovations or events (that is, instead of claiming that a theory is true and all others are false, ANT explains a successful theory by understanding the combinations and interactions of elements that make it successful). It also lacks coherence as a theory unto itself. Instead, ANT serves as a tactic to help people be aware of terminology and the sometimes-unquestioned presumptions that underlie them Mol (2010). Its unique material-semiotic approach sets it apart from many other STS and sociological network theories.

2.1.1 Family System Theory

The individual's family is the first and most significant institution that shapes their behaviour. In addition to providing him with social interaction within the family, his family also shapes his behaviour towards society at large. The family has a big impact on how the youngster perceives his surroundings and how he feels about them. The family and the social environment, as per the family system theory (Fowers, Montel & Olson (1996), are significant factors in determining violent behaviour (Zelenski, Santoro, Whelan, and Deanna 2012). The causes of violence have also been broadly categorised under biological factors, which include hormonal factors; intra-psychic factors, which include the batterer's and victim's personality traits; behavioristic positions, which consider social conditioning; and cognitive processes, which concentrate on things like taking other people's anger personally and processing social information incorrectly, among other things.

From a theoretical standpoint, the most significant factor influencing acts that are perceived as violent is family conflict brought on by miscommunication, disobedience, high expectations, and financial strain. Individual characteristics like the oppressor's and victim's aggressive tendencies, jealousy, immaturity, or suspicious nature come next (James, 1983), referenced in (Zelenski, Santoro, Whelan and Deanna 2012). All of these factors contribute to domestic violence against women because of the internal dynamics of the family unit. With its underlying sexual division of labour and hierarchical structure, the family system provides an ideal environment for the use of violence against women in order to uphold the given position and preserve the family system's structure.

Each person in a family has a certain role to play and set of rules to follow. Relationship agreements specify how members of the system are expected to react to one another based on their respective roles. Within the confines of the system, patterns emerge as the predictable behaviours of one family member influence and are influenced by those of other family members. Retaining the same behavioural pattern within a system can result in both dysfunction and equilibrium in the family system. According to Coleman and Miller (1975), referenced in Cohen, Murphy and Prather (2019), a wife may need to shoulder additional tasks if her husband suffers from depression and finds it difficult to manage his own affairs. Although the shift in responsibilities could keep the partnership stable, it might also cause the family to move in a new direction. Because the wife might not be able to sustain this too ambitious role for very long, this new balance could result in dysfunction.

2.2 Empirical Review

Ankpa, Kogi State, Salifu (2011) investigated the communication preferences and marital adjustment of educated couples. According to the study, happy relationships are more likely to result from couples that have developed effective communication techniques. Purnine and Carey's (2017) study on interpersonal communication and sexual adjustment discovered that sexual dissatisfaction was linked to pair agreement on sexual practices for both men and women. However, it is more likely that sexual activities will take place in accordance with what each partner finds attractive and acceptable when couples share similar sexual preferences, which adds to sexual satisfaction. It makes sense that a couple is less likely to have their sexual wants and desires satisfied and, thus, less likely to be sexually pleased when they disagree on their preferred sexual activities. Therefore, couples' sexual disagreements lessen women's sexual discontent.

Sexual dissatisfaction and talking to one's spouse about sex are positively correlated, according to several studies, especially for women. Hurlbert (2011) specifically states that "it has been found that feeling incapable of communicating sexual desires is a common attribute related to anorgasmia." Hurlbert (2011) goes on to say that research on communication between men and women in sexual relationships has been examined in relation to married dyad sexual dissatisfaction. In 2010, Cupach and Comstock conducted a study on the correlation between marital adjustment, sexual dissatisfaction, and satisfaction with sexual communication in a random sample of 402 married students attending a big public university. In their hypothesis, Cupach and Comstock proposed three main points of relationship: (1) sexual communication satisfaction is positively and significantly correlated with sexual dissatisfaction; (2) sexual communication satisfaction is positively and significantly correlated with marital adjustment; and (3) communication and marital adjustment are critical to understanding sexual satisfaction.

The association between sexual issues, communication, and sexual unhappiness was investigated by MacNeil and Byers (2007). A sample of 34 heterosexual males and 53 heterosexual women, aged 13 on average, from Canada were given questionnaire packets with questions about sexual dissatisfaction, relationship satisfaction, general communication, sexual worries, and sexual self-disclosure. There are correlations between sexual unhappiness and non-sexual communication as well as between sexual self-disclosure and sexual discontent. According to the study, sexual self-disclosure includes preferences for particular sexual activities, preferences for engaging in the same activities as one's partner, and the degree to which one discloses sexual issues. Both men and women who reported higher levels of sexual satisfaction also reported better communication and higher levels of self-disclosure.

According to Rosen and Bachmann (2018), there appears to be a connection between one's evaluation of their quality of life, spouse satisfaction, emotional well-being, and sexual fulfilment. Situations inside the heterosexual couple relationship, including frequent arguments, may lead to sexual dissatisfaction. Additionally, bringing up and caring for children, together with pregnancy and childbirth, can provide challenges to marital and sexual fulfillment (Witting,

Santtila, Alanko, Harlaar, Jern, Johansson, *et al.*, (2008).

Cohen and Waldinger (2011) demonstrated the critical significance of emotional intelligence, for example, by pointing out that the ability of the husband and wife to assess each other's emotional intimations will, in part, determine whether or not happiness is achieved. Maybe this has to do with the idea that emotional intelligence encompasses the capacity to comprehend, regulate, and use emotions as a means of reasoning. According to Cohen and Waldinger's study, having a good marriage does not necessitate living a happily ever after; rather, it requires the ability to analyse each other's emotional cues and have constructive conversations regarding circumstances that might have caused unpleasant emotions.

The study conducted by Anghel (2016) revealed a noteworthy association between the subcomponents of emotional intelligence, such as managing one's own emotions and regulating those of others, and marital pleasure. Consequently, controlling one's emotions is probably going to be important when it comes to how people feel about their marriage. The study conducted by Ilyas and Habib (2014) investigated the correlation between emotional intelligence and marital satisfaction in a group of professional teachers. The results showed a strong correlation between emotional intelligence and marital satisfaction. The results suggest that married educators who possess greater emotional intelligence will likely exhibit superior marital qualities and have greater marital pleasure. In a longitudinal study of couples, Sprecher (2002) discovered that those who broke up were less satisfied with their sex life than those who stayed together. Furthermore, a boring sex life may be one of the motivational factors underlying infidelity (Barta & Kiene, 2005).

3. Research Methodology

The study employed survey method. The population for the study includes all married couples in Lagos state. This includes male and female married couples in Lagos state.

Two hundred and fifty (250) married couples in Lagos state were selected for the study through multi-stage sampling procedure. This technique was adopted because the target participants have homogenous characteristics. The sample includes males and female who are married couples. The samples was randomly sorted in these orders of magnitude which consist of three stages; From the first stage of sampling Isolo local government areas was selected randomly in Lagos state which lead to the second stage involved simple random selection of wards from the local government. at the third stage, ten (10) streets were selected using simple random sampling technique where 250 participants from the selected local government area who are married couples. Based on this, an inference was drawn and 200eneralization was made on the population of the study. A total of two hundred (250) married couples were sampled.

4. Results and Discussion

4.1 Demographic Information of Married Couples in Lagos State Nigeria

Sex: Results reveal that many (57.5%) of married couple sampled were female while 42.5% were male. This is expected as female is expected to know more about important of communication in marriage than their counterpart and this implies that many of the respondents sampled for the study were female. The outcome is in line with the findings of Salifu (2011) who reported that majority of respondents sampled in order to know the obstacle to effective communication in Kogi State were female.

Age: The mean age of the respondents were 32.5 years with majority (59.5%) were between the age ranges of 20-35. Less than half of the respondents were between the age range of 36 and above. This implies that majority of the respondents sampled were adult and they were within the age of marriage and they are expected to know the important of communication in marriage. This result corroborates with the findings of Iyiana and Ugwu who reported that most of the married couple in Nsukka were between the ages of 20-35 years.

4.2 Frequency of Communicating among Selected Married Couple on Daily Basis

Findings show that the mean time the couples sample communicated on daily basis was 2 time with 32.5% indicate that they communicate between 1-2 times per day. Less than half (26.0%) of the respondents indicates that they communicate between 5-6 times per day while 17.5% indicate 3-4 times per day. This implies that most of the respondents communicate with their couple on daily basis and this might be adduced to the fact that the respondents sample knew the importance of communication in their marriage.

Table 1: Frequency of Communicating among Selected Married Couple on Daily Basis (n=200)

Frequency of communication among married couple	Frequency	Percentage	Mean
No communication	0	0.0	
1-2time daily	65	32.5	2 times daily
3-4 times daily	35	17.5	
4-5 times daily	52	26.0	
5-6 times daily	47	23.5	
More than 6 times daily	1	0.5	

Source: *Field Survey, 2021*

4.3 Respondents' Knowledge of the Role of Communication in Marriage

Results in table 2 reveal the respondents' knowledge of the role of communication in marriage. Findings shows that respondents knew that communication is the key to a successful marriage($\bar{X}$ =3.61), free communication among couples promotes sexual satisfaction($\bar{X}$ =3.42), lack of effective communication is a bane to marital stability($\bar{X}$ =3.32), couples tend to understand each other more if they maintain open and frank discussion($\bar{X}$ =3.13), open lines of communication affect the psychological well-being of the couples($\bar{X}$ =3.05), effective communication promotes intimacy among couples($\bar{X}$ =2.96), style and level of communication can make or mar a couple's marriage($\bar{X}$ =2.91) and effective communication reduces conflict among couples($\bar{X}$ =3.89). This implies that the respondents were knowledgeable about the role of effective communication in the marriage and this could influence their attitude towards effective communication. Also, this might have positive influence on the respondents' married life because more than half of the failed relationships are due to the fact that there was a severe lack of communication between couples.

Table 2: Respondents' Knowledge of the Role of Communication in Marriage (n=200)

Couples Knowledge of the role of communication	SA	A	D	SD	$\bar{X}$	Sd
Communication is the key to a successful marriage	153(76.5)	20(10.0)	23(11.5)	4(2.0)	3.61	0.76
Free communication among couples promotes sexual satisfaction	119(59.5)	47(23.5)	32(16.0)	2(1.0)	3.42	0.79
Lack of effective communication is a bane to marital stability	123(61.5)	29(14.5)	36(18.0)	12(6.0)	3.32	0.97
Couples tend to understand each other more if they maintain open and frank discussion	87(43.5)	67(33.5)	30(15.0)	16(8.0)	3.13	0.94
Open lines of communication affect the psychological well-being of the couples	87(43.5)	65(32.5)	18(9.0)	30(15.0)	3.05	1.06
Style and level of communication can make or mar a couple's marriage	62(31.0)	75(37.5)	48(24.0)	15(7.5)	2.92	0.92
Meaningful communication between couples promotes marital wellbeing	45(22.5)	50(25.0)	49(24.5)	56(28.5)	2.42	1.12
Effective communication reduces conflict among couples	46(23.0)	106(53.0)	28(14.0)	20(10.0)	2.89	0.87
Effective communication promotes intimacy among couples	75(37.5)	63(31.5)	41(20.5)	21(10.5)	2.96	1.00
Grand mean= 2.5						

Source: *Field Survey, 2021*

Note: SA=Strongly Agreed, A=Agreed, U=Undecided, D=Disagreed, and SD=Strongly Disagreed.
Value in parenthesis= Percentage
Sd=Standard deviation
$\bar{X}$ = Mean

4.4 Factors Responsible for Lack of Effective Communications among Married Couples in Lagos State

Results in table 3 reveal that factors responsible for lack of effective communications among married couples in Lagos state. Findings show that the major factors responsible for lack of effective communications among married couples in Lagos state were; sexual dissatisfaction ($\bar{X}$ =3.72), finance status ($\bar{X}$ =3.64), environment ($\bar{X}$ =3.64), job status ($\bar{X}$ =3.49), working Hour ($\bar{X}$ =3.49), stress ($\bar{X}$ =3.18), home factor ($\bar{X}$ =2.92), and lack of commitment ($\bar{X}$ =2.91). This implies that the aforementioned factor could positively or negatively influence effective communication. This result

is in line with the findings of Esere *et al.,* (2013) who reported that financial status and sexual dissatisfaction could influence effective communication between couples.

Table 3: Factors Responsible for Lack of Effective Communications among Married Couples in Lagos State (n=200)

Factors	SA	A	D	SD	$\bar{X}$	Sd
Sexual dissatisfaction	145(72.5)	53(26.5)	2(1.0)	0(0.0)	3.72	0.47
Finance Status	142(71.0)	44(22.0)	14(7.0)	0(0.0)	3.64	0.61
Environment	130(65.0)	67(33.5)	3(1.5)	0(0.0)	3.64	0.51
Job status	107(53.5)	84(42.0)	9(4.5)	0(0.0)	3.49	0.58
Working Hour	90(45.0)	75(37.5)	33(16.5)	2(1.0)	3.27	0.76
Stress	70(35.0)	97(48.5)	31(15.5)	2(1.0)	3.18	0.71
Home factor	44(22.0)	101(50.5)	49(24.5)	6(3.0)	2.92	0.76
Lack of commitment	67(33.5)	70(35.0)	40(20.0)	23(11.5)	2.91	0.99
Grand mean = 2.5						

Source: *Field Survey, 2021*

Note: SA=Strongly Agreed, A=Agreed, U=Undecided, D=Disagreed, and SD=Strongly Disagreed.
Value in parenthesis= Percentage
Sd=Standard deviation
$\bar{X}$ = Mean

4.5 Solutions to Ineffective Communications among Married Couples in Lagos State

Results in table 4 show the Solutions for ineffective communications among married couples in Lagos state. Findings reveal that avoid surface level or single word responses ($\bar{X}$ =3.69), create a safe space for communication ($\bar{X}$ =3.51), active and model respectful listening among couples ($\bar{X}$ =3.40), always make eye contact when talking with your spouse ($\bar{X}$ =3.36), choose to be genuinely interested in what your spouse has to say($\bar{X}$ =3.26), show care to your spouse ($\bar{X}$ =3.18), spending time with your family($\bar{X}$ =3.17) and include your spouse as a Friend in all your social media lists($\bar{X}$ =2.96) were the major solution for ineffective communications among married couples as indicated by the respondents. This implies that the aforementioned could influence ineffective communication among couple positively.

Table 4: Explanation to Ineffective Communications among Married Couples in Lagos State (n=200)

Solution for ineffective Communications	SA	A	D	SD	$\bar{X}$	Sd
Avoid surface level or single word responses	155(77.5)	28(14.0)	17(8.5)	0(0.0)	3.69	0.62
Create a safe space for communication.	119(59.5)	63(31.5)	18(9.0)	O(0.0)	3.51	0.65
Active and model respectful listening among couples	106(53.0)	67(33.5)	27(13.5)	0(0.0)	3.40	0.71
Always make eye contact when talking with your spouse	98(49.0)	78(39.0)	22(11.0)	2(1.0)	3.36	0.71
Choose to be genuinely interested in what your spouse has to say	93(46.5)	70(35.0)	33(16.5)	4(2.0)	3.26	0.80
Show care to your spouse	80(40.0)	83(41.5)	30(15.0)	7(3.5)	3.18	0.81
Spending time with your family	76(38.0)	92(46.0)	21(10.5)	11(5.5)	3.17	0.82
Include your spouse as a Friend in all your social media lists.	57(28.5)	96(48.0)	28(14.0)	19(9.5)	2.96	0.89
Grand Mean = 2.50						

Source: *Field survey, 2021*

Note: SA=Strongly Agreed, A=Agreed, U=Undecided, D=Disagreed, and SD=Strongly Disagreed.

Value in parenthesis= Percentage
Sd=Standard deviation
$\bar{X}$ = Mean

Test of Hypothesis

Test of significant relationship between the level of educational of the respondents' and the frequency of communication

Hypothesis one "significant relationship between level of educational of the respondents' and the frequency of communication" was tested using Pearson Product Moment Correlation (PPMC). The result is presented in Table 6. PPMC analysis revealed a significant relationship ($p<0.01$) between level of educational of the respondents' and the frequency of communication ($r=0.124$). This implies that the level of education of the respondents had effect in the frequency of communication among the couples. The null hypothesis is therefore rejected and the alternative hypothesis stated that there is a significant relationship between the levels of educational of the respondents' and the frequency of communication.

Table 5: Test of Significant Relationship between the Level of Educational of the Respondents' and the Frequency of Communication

Variable	r	P-value	Decision
Level of educational of the respondents' and the frequency of communication	0.124	0.000	S

Source: Field Survey, 2021
P<0.01
S=Significant

Test of significant Relationship between Religiosity and Frequency of Communication among Married Couples in Lagos State

Hypothesis one "significant relationship between religiosity and frequency of communication among married couples in Lagos state" was tested using Pearson Product Moment Correlation (PPMC). The result is presented in table 7. PPMC analysis revealed a significant relationship ($p<0.01$) between religiosity and frequency of communication among married couples in Lagos state ($r=0.117$). This implies that the respondents' religiosity had positive influence on the frequency of communication among the couples. The null hypothesis is therefore rejected and the alternative hypothesis stated that there is a significant relationship between respondents' religiosity and frequency of communication among married couples in Lagos state.

Table 5: Test of significant Relationship between Religiosity and Frequency of Communication among Married Couples in Lagos State

Variable	r-value	p-value	Decision
Religiosity and frequency of communication among married couples in Lagos state	0.117	0.000	S

Source: *Field Survey, 2021*
P<0.01
S=Significant

Test of significant Relationship between Level of Income and Frequency of Communication among Married Couples in Lagos State

Hypothesis one "significant relationship between level of income and frequency of communication among married couples in Lagos state" was tested using Pearson Product Moment Correlation (PPMC). The result is presented in table 8. PPMC analysis revealed a significant relationship ($p<0.01$) between the level of income and frequency of communication among married couples in Lagos state ($r=-0.093$). This implies that the respondents' level of income had negative influence on the frequency of communication among the couples. The null hypothesis is therefore rejected and the alternative hypothesis stated that there is a significant relationship between level of income and frequency of communication among married couples in Lagos state.

Table 7: Test of significant relationship between level of income and frequency of communication among married couples in Lagos State

Variable	r-value	p-value	Decision
Level of income and frequency of communication among married couples in Lagos state	-0.093	0.000	S

Source: *Field Survey, 2021*
P<0.01
S=Significant

5. Conclusion

The major factors responsible for lack of effective communications among married couples in Lagos state were; sexual dissatisfaction ($\bar{X}$ =3.72), finance status ($\bar{X}$ =3.64), environment ($\bar{X}$ =3.64), job status ($\bar{X}$ =3.49), working Hour ($\bar{X}$ =3.49), stress ($\bar{X}$ =3.18), home factor ($\bar{X}$ =2.92), and lack of commitment ($\bar{X}$ =2.91). Avoiding surface level or single word responses ($\bar{X}$ =3.69), create a safe space for communication ($\bar{X}$ =3.51), active and model respectful listening among couples ($\bar{X}$ =3.40), always make eye contact when talking with your spouse ($\bar{X}$ =3.36), choose to be genuinely interested in what your spouse has to say($\bar{X}$ =3.26), show care to your spouse ($\bar{X}$ =3.18), spending time with your family($\bar{X}$ =3.17) and include your spouse as a Friend in all your social media lists($\bar{X}$ =2.96) were the major solution for ineffective communications among married couples as indicated by the respondents. PPMC analysis revealed a significant relationship (p<0.01) between level of educational(r=0.124), religiosity (r=0.117), level of income (r=-0.093) of the respondents' and the frequency of communication.

The study concluded that:

- Majority of the respondents' sampled communicate with their partners on daily basis.
- The respondents were knowledgeable about the role of communication in marriages.
- The major factors responsible for lack of effective communications among married couples were:
- Sexual dissatisfaction;
- Finance status
- Environment; and
- Job status.

The main solution for ineffective communications among married couples in Lagos state were:

- Avoid surface level or single word responses;
- Create a safe space for communication;
- Active and model respectful listening among couples;
- Always make eye contact when talking with your spouse; and
- Choose to be genuinely interested in what your spouse has to say

The respondents' level of education, religiosity and level of income had influence on effective communications among married couples.

6. Recommendations

This study concluded that:

- Couples should note the type of method of communication among themselves so as to avoid conflict
- Churches and mosques should provide adequate materials and seminars for the couples this can be of help in increasing effective communication skills
- Couples should provide basic needs finance, this will help in effective communication
- Medias should organize programs in helping to build a relationship with their spouse

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Assessment of Narrative Exposure Therapy on the Psychological Trauma Symptoms of Victims of Violent Community Attacks

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Abstract. This study carried out an assessment of narrative exposure therapy on the psychological trauma symptoms of victims of violent community attacks. They were using a between-group pre/post-experimental design. Participants were 32 randomly selected, 16 in the control and intervention groups. The mean age of the participants (n = 32) was 43.2 years (SD = 11.5), comprising 24 males and eight females. The Trauma Symptom Checklist (TSC-40) was used as a measure of psychological trauma symptoms. Psychological trauma symptoms were assessed for study groups (Control and Intervention) at the pretest, after which the intervention group was exposed to Narrative Exposure Therapy (NET), and psychological trauma symptoms were assessed (Posttest) for both groups. The one-way Multivariate Analysis of Variance (MANOVA) was used to test the efficacy of NET on psychological trauma symptoms. Results revealed that MANOVA output indicated a significant effect of NET on the combined dimensions, Wilks' Lambda = .397, $F(6, 25) = 6.327$, $p < .001$, partial $\eta^2 = .603$. Furthermore, NET significantly reduced Dissociation ($p < .001$), Anxiety ($p < .05$), Depression ($p < .05$), and Sleep Disturbance ($p < .05$). However, no significant reduction of SATI ($p > .05$), and Sexual Problems ($p > .05$). These findings highlight the significant impact of NET in reducing Dissociation, Anxiety, Depression, and Sleep Disturbance symptoms among victims of violent attack. The study recommended the incorporation of NET into standard therapeutic protocols for trauma survivors experiencing Dissociation, Anxiety, Depression, and Sleep Disturbances following violent community attacks.

Keywords: Narrative Exposure Therapy, Trauma symptoms, Dissociation, Anxiety, Depression, Sleep Disturbance, Sexual Abuse Trauma Index, Sexual Problems

1. Introduction

Trauma symptoms among victims of violent community attacks are multifaceted and can include Dissociation, Anxiety, Depression, sleep disturbances, and issues related to sexual abuse (Coventry et al., 2020; Ishaya et al., 2020). Dissociation often manifests as a detachment from reality, while Anxiety and Depression reflect heightened emotional distress and a persistent sense of hopelessness (Sar, 2023). Sleep disturbances are common, characterized by difficulty falling or staying asleep, often linked to hyperarousal and intrusive memories (Nicholson & Pfeiffer, 2021). Additionally, victims may experience specific trauma symptoms related to sexual abuse, such as feelings of shame, guilt, and difficulties with sexual intimacy (Gewirtz-Meydan & Godbout, 2023).

Despite substantial measures implemented by governmental and non-governmental entities to combat violent extremism on the Plateau, certain regions continue to experience its pervasive influence, prompting prolonged inquiry among experts and researchers. This sustained prevalence of violent extremism raises questions about the factors contributing to its persistence, even in concerted efforts to curtail it (Okunade & Kohon, 2023; Amos, 2023; Brady et al., 2021). These concerns underline the necessity of exploring therapeutic strategies that can effectively address the psychological trauma resilience of individuals and communities affected by these cycles of violence.

With its roots in the Narrative Therapy and Exposure Therapy approaches NET holds promise in addressing the complex aftermath of violent incidents (Inyang, 2020; Orang et al., 2018; Robjant & Fazel, 2010). By systematically revisiting and processing traumatic memories within a structured therapeutic framework, NET offers the potential to alleviate the distressing

psychological symptoms that often afflict victims (Cloitre et al., 2020).

The significance of this research lies in its capacity to address a notable gap in the current understanding of resilience-building interventions for victims of community violence. Despite the extensive body of research on violent extremism and its impact, limited attention has been given to therapeutic interventions that target the psychological well-being and resilience of victims. This study aims to advance our understanding of the potential effectiveness of NET in this specific context, thereby providing valuable insights for both researchers and practitioners working to address the psychological aftermath of violent attacks within communities.

Against this backdrop, this study endeavors to investigate the potential of Narrative Exposure Therapy (NET) as a means to alleviate psychological trauma symptoms in victims of violent attacks within the Plateau State community. Despite the extensive attention given to countering violent extremism, there remains a significant gap in understanding how victims can enhance their resilience to psychological trauma resulting from these violent incidents. This research aims to bridge this gap by examining the impact of NET, a therapeutic intervention designed to facilitate the processing of traumatic memories, on the psychological well-being of individuals who have experienced violent attacks.

1.1 Problem Statement

Despite efforts by both government and non-government organizations to counter violent extremism, experts and researchers in the Plateau region have endeavoured to comprehend the factors influencing its persistence and escalation. Notably, population density, poverty, and ethnic segregation are recognized as significant demographic factors in shaping youth susceptibility to violent extremism. However, the literature presents differing perspectives on the nature of this relationship. While one viewpoint contends that ethnically segregated environments amplify violence due to in-group cohesion and out-group tension, contrasting opinions exist within this discourse (Madueke 2018; Krause 2017; Bunte & Vinson 2016;).

Conversely, an opposing perspective suggests that ethnically mixed regions are susceptible to violence, advocating for residential separation as a preventive measure against clashes (Waldinger & Shams, 2023). Scholars studying ethnic riots largely agree that mixed areas are more prone to collective violence than segregated ones, drawing from research that contrasts violence levels between such localities (Varshney, 2001). However, despite addressing disparities between distinct ethnic compositions, the dynamics influencing violence distribution across mixed areas remain enigmatic.

The recurring violent attack cycle in certain Plateau State regions necessitates an examination of coping strategies explicitly targeting resilience against psychological trauma resulting from such extremism. A research void exists in this area within Nigeria, notably in Plateau State, regarding the exploration of therapeutic interventions towards reducing psychological trauma symptoms as a result of violent extremism. This study is aimed at filling these research gaps

1.2 Aim and Objectives of the Study

The study aimed to investigate the effect of Narrative Exposure Therapy (NET) in reducing psychological trauma symptoms in community attack victims in six communities of Mangu LGA that have had a history of violent attacks by extremists. The study focused on the following specific objectives:

- To determine the efficacy of NET in reducing dissociation symptoms
- To ascertain the efficacy of NET in diminishing anxiety symptoms
- To investigate the impact of NET on depression symptoms
- To evaluate the effectiveness of NET in mitigating sexual abuse trauma index (SATI) symptoms
- To examine the effect of NET in alleviating sleep disturbance symptoms
- To find out the efficacy of NET in reducing sexual problem symptoms

1.3 Hypotheses

The following hypotheses were tested in the study:

- There would be a significant effect of NET in the reduction of dissociation symptoms among victims of violent attack.
- NET would have a significant effect in the reduction of anxiety symptoms among victims of violent attack.
- There would be a significant effect of NET in the reduction of depression symptoms among victims of violent attack.
- There would be a significant effect of NET in the reduction of sexual abuse trauma index

(SATI) symptoms among victims of violent attack.
- There would be a significant effect of NET in the reduction of sleep disturbance symptoms among victims of violent attack.
- There would be a significant effect of NET in the reduction of sexual problem symptoms among victims of violent attack.

2. Literature Review

The study of resilience to psychological trauma has evolved to focus not only on vulnerabilities but also on protective processes and factors contributing to resilience. This paradigm shift underscores the enduring competence and resource access of individuals and communities exposed to violence. Consequently, it is essential to view psychological trauma resilience as a dynamic process rather than a fixed trait (Ekezie, 2022). Moreover, the study of Fitzgerald et al. (2021) indicated that a strong ethnic and cultural identity is directly linked to greater resilience. College-age women from diverse racial and ethnic backgrounds who demonstrated high psychological trauma resilience displayed a positive attitude toward their cultures.

Studies investigating the repercussions of exposure to violent attacks have revealed adverse outcomes, including self-hatred, internalization of negative group identities, and low self-esteem (Madu & Nwankwo, 2021; Okedo-Alex et al., 2021). These findings align with theories that connect the turn to violent extremism with responses to experiences of humiliation and loss of dignity (Kruglanski et al., 2014). This can be exploited by terrorist recruiters who manipulate feelings of humiliation, powerlessness, and grievance to redirect individuals toward violent actions.

Prior research has supported this, demonstrating that engagement in terrorist activities often follows a period of alienation, leading individuals to seek a sense of belonging with small, like-minded collectives (Pickering et al., 2007). Therefore, context-informed investigations of psychological trauma resilience are crucial for understanding and operationalizing it in culturally situated contexts. To prevent bias in the conceptualization of resilience to violent extremism and to design effective interventions for psychological trauma symptoms, research, policy, and program development must be participatory and culturally embedded, capturing the subtleties of culture and context (Ungar & Liebenberge, 2011).

In addition to the broader context of resilience research, it is imperative to consider specific interventions for addressing traumatic stress. Notably, Inyang (2020) conducted a study utilizing the PCL-5 tool and Narrative Exposure Therapy (NET) to address traumatic stress in young individuals. Employing a quasi-experimental design, the study comprised a treatment group receiving NET and a control group receiving standard counselling. Based on data from 104 participants at the Kakuma refugee camp, the results highlighted NET's superior effectiveness in reducing traumatic stress symptoms, including memory intrusion, avoidance of stimuli, negative alterations in cognition and mood, and arousal/reactivity. These findings offer valuable guidance to professionals working with traumatized populations, informing their training and practice.

Furthermore, Brady et al. (2021) conducted a single-masked randomized controlled trial (RCT) to assess the feasibility and acceptability of NET as a treatment for PTSD in trafficking survivors with a history of multiple traumatic events. The RCT compared NET with a waitlist control group. Participants in the NET group attended an average of 17 sessions. The study found that NET was well-tolerated and led to significant reductions in PTSD, Depression, and anxiety symptoms post-treatment. This suggests that NET holds promise as a viable treatment for trafficking survivors, although adaptations may be necessary to address their comprehensive needs within a therapeutic context.

3. Methodology

3.1 Design

The between-group pre/post-experimental design was adopted for this study. This design involved creating an experimental group and a control group to assess the impact of an intervention. Participants were randomly assigned to either group. Both groups were initially measured on psychological trauma symptoms before the Intervention (NET). The experimental group received the Intervention, while the control group did not. After the Intervention, both groups were measured again to determine changes. They compared the post-intervention scores of the experimental group to their pre-intervention scores and to the post-intervention scores of the control group to determine if the Intervention (NET) had a significant effect on psychological trauma symptoms. This design enabled the establishment of a causal relationship. The independent variable is NET, and the dependent variable is psychological trauma symptoms.

3.2 Population and Sample

The population in the study were community members in Mangu LGA who were victims of violent attacks by extremists. The sociodemographic characteristics of the study participants (N = 106) at baseline indicated that the mean age of the participants was 43.3 years (*SD* = 13.4). Regarding gender distribution, the majority were male (58.5%, n = 62) compared to female (41.5%, n = 44). Regarding marital status, a significant majority were married (93.4%, n = 99) versus single (6.6%, n = 7). Educationally, the sample was diverse, with 8.5% (n = 9) having non-formal education, 39.6% (n = 42) having primary education, 31.1% (n = 33) having secondary education, and 20.8% (n = 22) having tertiary education—the study sample comprised of 32 randomly selected participants, 16 each in the control and intervention group. The mean age of the participants (n = 32) was 43.2 years (SD = 11.5), comprising 24 males and eight females.

3.3 Instrument for Data Collection

The Trauma Symptom Checklist-40 (TSC-40), developed by Briere and Runtz (1989), is a self-report measure consisting of 40 items designed to assess psychological trauma symptoms in adults stemming from adulthood traumatic experiences. Respondents rate the frequency of each symptom over the past two months on a 4-point scale from 0 ("never") to 3 ("often"). The TSC-40 evaluates posttraumatic stress and other common symptoms in trauma survivors, providing valuable insights into their psychological distress. The instrument includes six subscales: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index (SATI), Sexual Problems, and Sleep Disturbances, with scores ranging from 0 to 120, where higher scores indicate greater trauma severity. The subscales demonstrate varying degrees of reliability: Sexual Problems (α = .73), Sleep Disturbance (α = .77), SATI (α = .62), and the total TSC-40 score (α = .90), reflecting the measure's overall internal consistency and precision in assessing trauma-related constructs.

3.4 Procedure for Data Collection

The initial baseline population comprised 106 individuals who had experienced violent attacks. These participants were screened for eligibility based on specific inclusion criteria: a diagnosis of Posttraumatic Stress Disorder (PTSD) according to DSM-5 criteria, age between 18 and 65 years, and no prior history of psychological treatment for trauma. Exclusion criteria included severe mental illness, substance abuse, and cognitive impairment. All eligible participants underwent a comprehensive baseline assessment, which included demographic information, trauma history, and psychological trauma symptom assessments. From the eligible pool, 32 participants were randomly selected using a computerized random number generator. These participants were then randomized into the intervention group (n = 16) and the control group (n = 16). Randomization was stratified to ensure comparable baseline characteristics across groups.

The intervention group received Narrative Exposure Therapy (NET), a structured short-term psychotherapy designed to reduce symptoms of PTSD by helping individuals construct a coherent narrative of their traumatic experiences. The therapy was delivered over ten sessions, each lasting approximately 90 minutes, conducted weekly by trained therapists. Conversely, the control group was placed on a waitlist and received no therapeutic intervention during the study period. This group was provided with psychoeducation about PTSD and general mental health support but did not participate in any structured therapy sessions. Upon completing the 10-week intervention period, all participants underwent a post-intervention assessment identical to the baseline assessment.

Ethical approval for the study was obtained from the affiliated university's Institutional Review Board (IRB). Informed consent was obtained from all participants before their inclusion in the study. Participants were assured of their right to withdraw at any time without penalty. All data were anonymized to protect participant confidentiality. This rigorous procedure ensured a controlled and systematic evaluation of the efficacy of Narrative Exposure Therapy in alleviating psychological trauma symptoms among victims of violent community attacks.

3.5 Method of Data Analysis

The Multivariate Analysis of Variance (MANOVA) statistical tool was used to analyse the data. Multivariate Analysis of Variance (MANOVA) is a powerful statistical technique used to analyse the simultaneous variation of two or more dependent variables across two or more groups. The MANOVA allows researchers to assess whether multiple dependent variables change together across groups while controlling for the relationships among them. Also, MANOVA provides insights into the overall effect of categorical independent variables on continuous dependent variables, offering a more

comprehensive understanding of group differences and interactions than univariate methods alone.

4. Results

4.1 Descriptive Results

The study participants' mean and standard deviation scores at baseline, pre-, and posttest are presented in this section.

Table 1: *Mean and Standard deviation Scores of Psychological Trauma symptoms at Baseline (N = 106)*

Psychological Traum Symptom	Mean (*SD*)
Dissociation	9.04 (3.43)
Anxiety	11.48 (4.54)
Depression	12.69 (4.87)
Sexual Abuse Trauma Index (SATI)	9.42 (3.75)
Sleep disturbance	10.21 (3.58)
Sexual problems	8.33 (4.69)

Table 1 shows the mean and SD scores of psychological trauma symptoms at baseline, indicating the mean score for Dissociation is 9.04 (SD = 3.43), indicating that, on average, participants reported moderate levels of dissociative symptoms, with some variability around the mean. Anxiety has a mean score of 11.48 (SD = 4.54), suggesting a moderate level of anxiety symptoms, with a relatively wider spread of scores. Depression shows a mean of 12.69 (*SD* = 4.87), indicating moderate depressive symptoms, again with considerable variability. The Sexual Abuse Trauma Index (SATI) has a mean of 9.42 (*SD* = 3.75), reflecting moderate trauma symptoms related to sexual abuse, with some variation. Sleep disturbance has a mean score of 10.21 (*SD* = 3.58), showing moderate sleep-related issues with moderate variability. Sexual problems have a mean score of 8.33 (*SD* = 4.69), indicating moderate sexual difficulties, with a higher degree of variability among participants. These values provide a snapshot of the psychological state and trauma impact on the participants, showing that moderate levels of symptoms are prevalent across these measures, with varying degrees of consistency within the sample at baseline.

Table 2: *Pretest Mean and Standard deviation Scores of Psychological Trauma symptoms across the Study Groups*

Psychological trauma symptom	Study Group		t	*p*-value
	Control Mean (*SD*)	Intervention Mean (*SD*)		
Dissociation	11.19 (2.46)	12.00 (2.58)	.912	.369
Anxiety	15.19 (2.54)	15.25 (2.46)	.071	.944
Depression	16.31 (4.01)	17.13 (3.07)	.643	.525
Sexual Abuse Trauma Index	11.81 (3.35)	13.13 (2.19)	1.286	.208
Sleep disturbance	13.00 (2.76)	12.88 (2.75)	-.128	.899
Sexual problems	11.38 (4.52)	11.75 (2.46)	.292	.773

Table 2 presents the pretest mean and standard deviation (*SD*) scores of psychological trauma symptoms across the study groups. The control group showed a mean (*SD*) dissociation score of 11.19 (2.46). In contrast, the intervention group had a slightly higher mean (*SD*) score of 12.00 (2.58), with a t-value of .912 and a p-value of .369, indicating no significant difference. Similarly, anxiety scores were nearly identical, with means (*SD*) of 15.19 (2.54) for the control group and 15.25 (2.46) for the intervention group (t = .071, *p* = .944). Depression scores were also comparable, with the control group at 16.31 (4.01) and the intervention group at 17.13 (3.07) (t = .643, *p* = .525). The Sexual Abuse Trauma Index (SATI) showed means (*SD*) of 11.81 (3.35) for the control and 13.13 (2.19) for the intervention group (t = 1.286, *p* = .208). For sleep disturbance, both groups had similar scores, with the control at 13.00 (2.76) and the Intervention at 12.88 (2.75) (t = -.128, *p* = .899). Lastly, sexual problems had means (*SD*) of 11.38 (4.52) for the control and 11.75 (2.46) for the intervention group (t = .292, *p* = .773). Overall, there were no statistically significant differences between the study groups in the pretest scores of any of the psychological trauma symptoms.

Table 3: *Posttest Mean and Standard deviation Scores of Psychological Trauma symptoms across the Study Groups*

Psychological trauma symptom	Study Group		t	*p*-value
	Control Mean (*SD*)	Intervention Mean (*SD*)		
Dissociation	12.19 (2.74)	9.25 (1.24)	-3.910	<.001
Anxiety	15.19 (2.54)	11.06 (3.49)	-3.823	.001
Depression	16.31 (4.01)	12.25 (2.97)	-3.252	.003

Sexual Abuse Trauma Index	11.81 (3.35)	12.63 (1.89)	.826	.415
Sleep disturbance	13.56 (2.78)	10.44 (2.83)	-3.152	.004
Sexual problems	11.38 (4.52)	11.75 (2.46)	.292	.773

Table 3 presents the posttest mean and standard deviation scores for psychological trauma symptoms across different study groups: Control and Intervention. The study examined various symptoms, including Dissociation, Anxiety, Depression, Sexual Abuse Trauma Index, Sleep disturbance, and Sexual problems. Statistical analysis revealed significant differences between the Control and Intervention groups for Dissociation ($t = -3.910$, $p < .001$), Anxiety ($t = -3.823$, $p = .001$), Depression ($t = -3.252$, $p = .003$), and Sleep disturbance ($t = -3.152$, $p = .004$), with lower mean scores indicating less severe symptoms in the Intervention group compared to the Control group. However, no significant differences were found for the Sexual Abuse Trauma Index ($t = .826$, $p = .415$) and Sexual problems ($t = .292$, $p = .773$) between the groups.

4.2 Inferential Results

The study hypotheses were tested with the Multivariate Analysis of Variance (MANOVA), and the results are presented below.

Table 4: *ANOVA results for differences between study groups in Psychological Trauma symptoms after Intervention*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	η^2
Corrected Model	Dissociation	69.031	1	69.031	15.291	<.001	.338
	Anxiety	136.125	1	136.125	14.617	.001	.328
	Depression	132.031	1	132.031	10.578	.003	.261
	SATI	5.281	1	5.281	.682	.415	.022
	Sleep disturbance	78.125	1	78.125	9.936	.004	.249
	Sexual problems	1.125	1	1.125	.085	.773	.003
Intercept	Dissociation	3676.531	1	3676.531	814.368	<.001	.964
	Anxiety	5512.500	1	5512.500	591.946	<.001	.952
	Depression	6526.531	1	6526.531	522.907	<.001	.946
	SATI	4777.531	1	4777.531	617.285	<.001	.954
	Sleep disturbance	4608.000	1	4608.000	586.073	<.001	.951
	Sexual problems	4278.125	1	4278.125	323.488	<.001	.915
Study Group	Dissociation	69.031	1	69.031	15.291	<.001	.338
	Anxiety	136.125	1	136.125	14.617	.001	.328
	Depression	132.031	1	132.031	10.578	.003	.261
	SATI	5.281	1	5.281	.682	.415	.022
	Sleep disturbance	78.125	1	78.125	9.936	.004	.249
	Sexual problems	1.125	1	1.125	.085	.773	.003
Error	Dissociation	135.438	30	4.515			
	Anxiety	279.375	30	9.313			
	Depression	374.438	30	12.481			
	SATI	232.188	30	7.740			
	Sleep disturbance	235.875	30	7.863			
	Sexual problems	396.750	30	13.225			
Total	Dissociation	3881.000	32				
	Anxiety	5928.000	32				
	Depression	7033.000	32				
	SATI	5015.000	32				
	Sleep disturbance	4922.000	32				
	Sexual problems	4676.000	32				
Corrected Total	Dissociation	204.469	31				
	Anxiety	415.500	31				
	Depression	506.469	31				
	SATI	237.469	31				
	Sleep disturbance	314.000	31				
	Sexual problems	397.875	31				

A MANOVA was conducted to evaluate the effect of the study group (Intervention, Control) on five dimensions of psychological trauma symptoms: Dissociation, Anxiety, SATI, Sleep Disturbance, and Sexual Problems. The MANOVA output indicated a significant effect of NET on the combined dimensions, Wilks' Lambda = .397, $F(6, 25) = 6.327$, $p < .001$, partial $\eta^2 = .603$. Univariate ANOVA (Table 4) showed that NET significantly reduced Dissociation symptom, $F(1, 30) = 15.291$, $p < .001$, partial $\eta^2 = .338$, Anxiety symptom, $F(1, 30) = 14.617$, $p < .05$, partial $\eta^2 = .328$, Depression symptom, $F(1, 30) =$

10.578, p <.05, partial η^2 = .261, and Sleep Disturbance symptom, $F(1, 30) = 9.936$, p <.05, partial η^2 = .249. However, no significant reduction for SATI symptom, $F(1, 30) = 0.682$, p > .05, partial η^2 = .022, and Sexual Problems symptom, $F(1, 30) = 0.085$, p > .05, partial η^2 = .003. The large effect sizes for Dissociation, Anxiety, Depression, and sleep disturbance symptoms indicate a substantial impact of NET (Intervention) on reducing these symptoms. These findings highlight the Intervention's significant impact on reducing Dissociation, Anxiety, Depression, and sleep disturbance symptoms compared to the control group.

5. Discussion

Findings revealed that NET demonstrated significant effectiveness in reducing Dissociation, Anxiety, Depression, and sleep disturbance symptoms among victims of violent community attacks. These outcomes align with studies that revealed significant effectiveness of NET in reducing Dissociation, Anxiety, Depression, and sleep disturbance symptoms (Geng et al., 2024; Smaik et al., 2023; Elbert et al., 2022; Fan et al., 2021; Siehl et al., 2021; Raghuraman et al., 2021; Halvorsen et al., 2014; Zang et al., 2013).

The effectiveness of NET could be explained on the basis that the structured narrative approach of NET facilitates the systematic processing and integration of traumatic memories by encouraging individuals to recount their experiences in a supportive therapeutic environment sequentially (Rogalla & Hash, 2024; Elbert et al., 2022). This process helps to organize fragmented memories into a coherent narrative, thereby reducing Dissociation and alleviating symptoms of Anxiety and Depression. By providing a framework for individuals to confront and make sense of their traumatic experiences, NET promotes emotional processing and adaptive coping strategies, ultimately improving overall psychological well-being (Troy et al., 2023).

However, the findings of the study also revealed that NET did not significantly reduce symptoms related to the Sexual Abuse Trauma Index (SATI) and sexual problems. This outcome contrasts with the findings, which found a significant impact of NET on SATI and sexual problems among internally displaced persons (Ishaya et al., 2020; Ishaya et al., 2019). The study's finding underscores the complex nature of sexual trauma and suggests that NET, while effective for addressing general trauma symptoms, may not adequately address the specific psychological challenges associated with sexual abuse experiences. Sexual trauma often involves distinct psychological mechanisms such as betrayal, shame, and altered beliefs about relationships and intimacy, which may require specialized therapeutic interventions beyond the scope of standard NET protocols (Dawson, 2023).

The findings underscore the importance of integrating evidence-based therapies like NET into clinical practice for trauma survivors while also emphasizing the need for continued research and development of therapeutic strategies that can effectively address the diverse and nuanced psychological effects of traumatic experiences, including sexual trauma. By expanding understanding and refining treatment approaches, clinicians and policymakers can better support individuals affected by trauma and promote long-term recovery and resilience.

6. Limitations of the Study

Limitations of the study include the following: The duration of follow-up assessments post-treatment could be considered a limitation, as longer-term effects of Narrative Exposure Therapy (NET) beyond the immediate post-treatment period were not evaluated. Also, the reliance on self-reported measures for assessing psychological trauma symptoms may introduce response biases or inaccuracies, influencing the robustness of the reported findings. Addressing these limitations could enhance the reliability and broader applicability of future research on NET and similar therapeutic interventions for trauma.

7. Policy Implication

The research study's findings have several implications for practice, policy, and theory. In practice, NET demonstrates apparent efficacy in reducing Dissociation, Anxiety, Depression, and sleep disturbance symptoms associated with trauma, suggesting its adoption as a recommended therapeutic intervention for similar populations. Clinicians and mental health practitioners should consider integrating NET into treatment protocols for trauma survivors to alleviate these common symptoms effectively. From a policy perspective, these findings advocate for the inclusion of NET in mental health service frameworks aimed at supporting victims of violent community attacks, potentially influencing policy decisions regarding funding and resource allocation for trauma-focused therapies. The study's results contribute to trauma theory by affirming the effectiveness of narrative-based approaches in addressing specific trauma symptoms while highlighting areas, such as SATI symptoms and sexual problems, where additional therapeutic strategies may be warranted.

8. Conclusion

Based on the findings of the research, Narrative Exposure Therapy (NET) demonstrates significant efficacy in reducing Dissociation, Anxiety, Depression, and sleep disturbance symptoms among victims of violent community attacks. These results underscore NET as a beneficial therapeutic approach for addressing a range of psychological trauma symptoms commonly experienced in this population. However, the therapy did not show significant effectiveness in reducing symptoms related to the Sexual Abuse Trauma Index (SATI) or sexual problems. These findings suggest that while NET is effective for specific trauma symptoms, additional or alternative interventions may be needed to address sexual trauma-related symptoms in this context effectively. Overall, NET emerges as a valuable therapeutic tool in the treatment arsenal for alleviating specific psychological trauma symptoms associated with violent community attacks.

9. Recommendations

Based on the findings of the study, the following recommendations are made:

Clinical Practice: Incorporate NET into standard therapeutic protocols for trauma survivors experiencing Dissociation, Anxiety, Depression, and sleep disturbances following violent community attacks. Provide training and support for mental health professionals to ensure effective implementation.

Further Research: Conduct larger-scale studies with diverse populations to validate the findings across different contexts and types of traumas. Longitudinal studies are needed to explore the sustainability of NET effects over time and their impact on broader mental health outcomes.

Treatment Refinement: Develop and evaluate adjunctive interventions or modifications to NET specifically targeting Sexual Abuse Trauma Index (SATI) symptoms and sexual problems, which were not significantly impacted by standard NET protocols in this study.

Policy and Funding: Advocate for policies that support the integration of evidence-based trauma therapies like NET into mental health services for victims of violent community attacks. Allocate resources for training, implementing, and evaluating trauma-focused interventions in clinical settings.

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Nature and Effectiveness of Rehabilitation Programmes in Preventing Inmates' Recidivism in Nigeria Correctional Service

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Abstract. This study examined the nature and effectiveness of rehabilitation programmes in preventing inmates' recidivism in Nigeria Correctional Service. The rehabilitative theory was adopted as the study's theoretical framework. The study was purely quantitative and the cross sectional research design regulated the research methodology. The collection of quantitative data involved the participation of 695 respondents to whom questionnaire was administered. The quantitative data was analysed with Statistical Package for Social Sciences (SPSS) using frequency, tables and charts. The study found out that there were different types of rehabilitation programmes in the custodial centres. These different types of rehabilitation programmes were to meet the different rehabilitation needs of the convicts. On the effectiveness of the various rehabilitation programmes, majority of the respondents in entire sampled population unanimously agreed that the rehabilitation programmes available in the custodial centres has effectively change the lives of convicts. The study concluded that effective rehabilitation of convicts can prevent inmates from going to crime and government should always prepare a discharge package for convicts upon completion of sentence, in a way that the gains of convicts' rehabilitation will be far more than the gains of crime. The study further recommended that modern rehabilitation programmes such as prison work programmes among others should be institutionalized in custodial centres in Nigeria.

Keywords: Effectiveness, Rehabilitation Programmes, Convicts, Recidivism, Custodial Centre

1. Introduction

When offenders are perceived as sick and helpless persons, therefore, need to be treated or helped in order to recover or to be restored to a state of normalcy. This is the idea of changing the offender from their law-breaking behaviour to law abiding behaviour. The major reason of incarceration according to Nigeria Correctional Service Act (2019) is to identify offenders' antisocial behaviour, treatment and rehabilitate them to useful and law-abiding citizens. It is therefore likely that the rate of recidivism will decrease if the essence of imprisonment is realized by providing appropriate rehabilitation for prisoners. Even with the philosophical change on the rationale of imprisonment from punishment orientated to reformation and rehabilitation of ex-convicts, ex-convicts upon release into the society still of return to crime.

Consequently, recidivism remains a considerable problem which faces every society (United Nations Office on Drugs and Crime, 2012). Recidivism has not only been on the increase in Sub-Saharan Africa in general but has become a major social problem affecting Nigeria in particular. Recidivism is defined as "the re-arrest, reconviction, or re-incarceration of an ex-offender within a given time frame" (Holzer and Raphael, 2003). According to Payne (2007) recidivism refers to repetitious criminal activity and is synonymous with terms such as "repeat offending" and "re-offending". According to Tenibiaje (2013), recidivism is the act of a person repeating an undesirable behaviour after he or she has either experienced negative consequences of that behaviour or has been treated or trained to extinguish that behaviour. Similarly, Wilson (2009), stated that studies conducted in Nigeria have acknowledged that

81% of male criminal inmate and 45% of female criminal inmate were re-arrested within 36 months of release from the custodial centre. As a result of this, crime by ex-inmates account for a significant part of current and future crimes (Abrifor, Atere & Muoghalu, 2012).

However, since the inception of custodial centres in Nigeria, so much has been said about the rehabilitation and recidivism, and the neglect that characterized rehabilitation process which has led the high rate of ex-convicts returning to crime (Obioha, 2011). Reformation, rehabilitation and reintegration of offenders are key goals for the establishment of modern custodial centres; which is predicated upon the understanding that those who have deviated from the collective norms and laws of the society as expressed in criminal laws should be reformed or assisted to live a better life (Igbinovia & Omorogiuwa, 2019, Ayuk, Owan & Ekok, 2013). Consequently, the dilapidation state of the inmates' custodial centres, demonstrates a condition that cannot guarantee the reformatory process of the inmates. This can be attributed to the neglect of the welfare of the inmates and failure to implement the reforms recommendations of the custodial centres (Opafunso & Adepoju, 2016).

In recent times, corrections specialists have always asked if inmates are supposed to be punished? Is it possible to engage inmates in rehabilitation programmes to make them law abiding and self-reliant once released (Muasya, 2013)? In his response, Rice (2006) argued that the major focus of the rehabilitation programmes for inmates is to increase their education and vocational skills, so as to have competitive value upon release and minimize their chances of recidivism. Chappell, 2004 asserted that lack of rehabilitation makes inmates to be more susceptible to crime and recidivism is bound to occur. Correctional training reduces the possibility of post release re-offending and increases the chances of ex-inmates obtaining employment and becoming self-reliant and law abiding citizens.

State of the Problem

Without any doubt, there seems to be an increase in the rate of recidivism in Nigeria. Recidivism is a threat to peace and security; in some instances, it results in the loss of lives, the loss of properties and physical harm. It also impacts negatively on the socio-economic development and growth, thereby draining dwindling resources of the nation (Oluyemi & Norma, 2014). The high prevalence of recidivism in recent times as earlier observed, has become worrisome, and calls for concern. It is no gain saying that an upsurge of recidivism can counteract or slow down development in any society. This is because crime is disruptive and destructive, especially, violent crimes and if left to flourish or uncontrolled, can lead to a state of general insecurity (Esiri, 2016).

Consequently, the public and government seems to forget about sentenced offenders once they are incarcerated, but they fail to realize that the society will likely have to contend with them again upon release, if not properly rehabilitated. A majority of these inmates will certainly return to the communities from which they came with little evidence of successful rehabilitation (Sutton, Veyrat-Pontet, & Fielding 2016). Oduyela (2013) opined that Nigeria correctional system is punitive, degrading, dehumanizing and retributive which leaves inmates with the least opportunity of rehabilitation and successful re-entry into society. He further argued that those who are lucky to come out alive find it extremely difficult to re-adjust to normal lives and eventually end up in crime.

Although, since the establishment of Nigeria Correctional Service, several rehabilitation programmes have been formulated. These rehabilitation programmes are to equip the inmates with skills to ensure that they are self-dependent and not a burden or a nuisance to their families or other members of the community and can make positive contributions to the development of the areas they live in. Despite these efforts, Chikwelu et al. (2019) argued that life after incarceration indicates that, cases of recidivists who cannot generate any livelihoods upon release are quite common within communities in Nigeria. More so, huge resources invested to engage inmates on various rehabilitation programmes ranging from formal primary, secondary, counselling, skills training and vocational courses, aimed at sustaining them and their dependents has yielded little or no result in terms of rehabilitation and preventing inmates from returning to crime (Onyekachi, 2016).

The philosophy of the Nigeria Correctional Service is not different from the global philosophy of corrections which entails involving inmates in programmes that target offending behaviour, developing education and training needs, securing the right to safety in correctional facilities, ensuring physical and emotional well-being and provision of humane living conditions, and 218 nstitutionalizing support after release (McAree, 2011). Consequently, this philosophy of treatment has been confronted with a lot of inconsistencies and inefficiencies in its implementation and the desired rehabilitation purpose for inmates are not achieved, thereby aggravating the rate of recidivism (Aduba, 2012; Opafunso &

Adepoju, 2016). Based on the above assertions, the study seeks to investigate the effectiveness of rehabilitation programmes in preventing recidivism in Nigeria Correctional Service.

1.1 Objective of the Study

To examine the nature and effectiveness of the rehabilitation programmes of inmates in Nigeria Correctional Service.

1.2 Research Question

What are the nature and effects of rehabilitation programmes on inmates in Nigeria Correctional Service, Edo State?

2. Literature Review

2.1 The Nature of Inmates Rehabilitation in Correctional Institutions

Rehabilitation has long been a contentious topic in the fields of criminology, corrections and penology. According to Ugwuoke & Ameh (2014) rehabilitation has been considered a primary goal of the correctional system throughout the twentieth century. Similarly, Igbo (2007) further argued that rehabilitation of inmates should begin from the very day they are admitted into the custodial centre to the day they are discharged. This is to ensure that they utilize the skills they acquired in the course of rehabilitation to live a law abiding life in the society. According to Okoro (2000), rehabilitation efforts are attempts through treatment or programming to stop offenders from continuing to offend. In the word of Dambazau (2007), rehabilitation is a critical way to overcome the collateral consequences of being a convict which limit the convicted individual to social, economic, and political opportunities after release. Sanda and Abba (2015) asserted that rehabilitation focuses on medical, psychological treatments and social skills training, all designed to correct the problems that led the individual to crime.

Rehabilitation of offenders is key goals for the establishment of modern correctional system; which is predicated upon the understanding that those who have violated the criminal laws of the society should be reformed or assisted to live a better life (Ayuk, Owan & Ekok, 2013). It is also predicated upon the belief that when rehabilitative, reformative and reintegration policies and programmes are effectively and meaningfully pursued and implemented for inmates under conducive structural and environmental as well legal conditions, there will be decrease or significant reduction in the rate of recidivism among inmates (Ekpenyong & Undutimi, 2016; Esiri, 2016). Rehabilitation and reformation as the processes of restoring the useful life through therapy and education or the process of helping an individual convict adapt to the society (Campbell, 2005).

Rehabilitation is understood in this study as including those strategies, measures and programmes applied during incarceration in preparation for release. This study admits that the use of the term "rehabilitation" is to some extent idiosyncratic in view of how it is used in criminological literature (Raynor & Robinson (2009)). It encompasses not only measures and programmes taken in custodial facility but serves as an umbrella term for programmes and structures inside and outside facility, aimed at preparing and supporting the release of offenders in form of resettlement or re-entry. This underscores the view that rehabilitation efforts ought to be offered by the correctional system from the onset of detention, during incarceration and after release, to limit the detrimental effects of imprisonment through adequate activities and services (Scheirs, 2016). As most inmates serve determinate sentences and will eventually be released, the purpose of imprisonment is to reduce future criminality by ensuring, as much as possible, that the offender is able to live a law-abiding and self-supporting life upon return to society (Huber 2016).

Rehabilitation draws its strength from Positivists' argument that the causes of crime are present in the nature of the society, and that when these causes are identified, it would be possible to design intervention programmes for the benefit of the offenders in order to prevent further criminality (Ikoh, 2011, Cullen & Gilbert, 1982). Rehabilitation therefore links criminal behaviour with abnormality or some form of deficiency in the criminals. It assumes that human behaviour is the product of antecedent causes. The goal is to identify these antecedents' conditions, understand the inadequacies, be it physical, moral, mental, social, vocational and or academic. Once the offender's problems are diagnosed and classified for treatment, the offender can be corrected by appropriate psychological or physical therapy, counselling, education or vocational training, so that he or she can pursue an independent and legally accepted way of life on discharge (Allen, 1971).

From the above conceptions, the assumption of rehabilitation is that people are not permanently criminals and that it is possible to restore a criminal to a useful life, to a life in which they contribute to themselves and to society. According to the Nigeria Correctional Service Act (2019), Section 10, the

rehabilitive functions of the custodial centre among others are identifying the existence and causes of antisocial behaviours of inmates; conducting risk and needs assesment at developing appropriate correctional treatment methods for reformation, rehabilitation and reintegration; implementing reformation and rehabilitation programmes to enhance reintegration of inmates back to the society and empowering inmtes through deployment of education and vocational skills trainning programmes , and facilitating incentives and income generation through custodial centres, farms and industries.

2.2 Effectiveness of Rehabilitation Programmes for Inmates in Nigeria Correctional Service

The purpose of establishing custodial centres in all parts of the world, including Nigeria, is to provide reformation and rehabilitation programmes for those who violate laws of the society (Chukwudi, 2012). Orakwe (2013) posits that the Nigeria Correctional Service has several programmes aimed at rehabilitation of inmates. These rehabilitation programmes among others includes the Prisons Adult Remedial Educational Program (AREP) that enables illiterate inmates to access adult education and vocational education which includes training in carpentry, metal work, and woodwork. More so, there are also other rehabilitation services offered by the Nigeria Correctional Service to equip inmates with skills in husbandry, service and maintenance of agro machines, treatment for attitudinal and behavioural changes necessary for social assimilation (Ajah & Nweke, (2017a), substance abuse treatment and life skills training such as anger management (Stephen & Linda, 2003).

Nigeria Correctional Service has long provided programming for inmates during their confinement. The growing body of literature on inmate rehabilitation primarily focus on education (Behan, 2014; Dawe, 2007), substance abuse prevention and sex offender treatment (Michels II et al., 2007; Boetticher & Feest, 2004), mental health services and cognitive behavioural treatment (Lambert et al., 2007), and obtaining housing (David J et al., 2014). In addition, Boriboonthana & Waipo (1999), also suggest that prison work has important implications for treating and rehabilitating inmates. The objective of providing inmates with rehabilitation programming is to improve their behaviour, both during and after release from custodial centre.

Indeed, correctional programming is often intended to not only enhance public safety by lowering recidivism, but also to promote greater safety within correctional centres by reducing inmates' misconduct. Although, these rehabilitations are available but research suggests that many inmates are not exposed to treatment programming while incarcerated (Lynch & Sabol, 2001). These rehabilitation programmes in Nigeria Correctional Service are attempt to restore inmates to their fullest physical, mental, psychological, social, vocational and economic usefulness. However, the provision of these services continues and its effectiveness has always been on the front burner of public discourse (Tanimu, 2010).

2.3 Relationship between Rehabilitation and Recidivism

The place of rehabilitation and treatment of inmates have continued to be on the front burner of public discourse in recent time (Tanimu, 2010). Leading this discourse are professionals in the field of criminal corrections. These professionals seem to be at a consensus that rehabilitation and recidivism has strong interrelationship. The relationship is predicated on helping the inmates acquire the much needed social skills, vocational training, attitudinal and behavioural changes, and education that will help them not to relapse into criminal upon release. Abrifor *et al*. (2012) asserted that the frequency at which released inmates return to the correctional facility few months after discharge has drawn the attention and interest of criminologists, sociologists and scholars from other behavioural disciplines who now doubt the ideal function of the correctional centres. For example, statistics from Nigeria Correctional Service shows that over 60% of inmates are recidivists, and this is an indication that the correctional service as a reformatory or rehabilitation home has failed in correcting criminal behaviour of inmates, hence the high prevalence of criminal recidivism (Chukwumerije, 2012).

According to Ahmed & Ahmad (2015), the re-integration of the released inmates into the society is a task to almost all countries globally and hence the phenomenon of recidivism. The reason is that the rate of recidivism of a particular jurisdiction can be used to measure the effectiveness of the correctional and rehabilitation model. Therefore, a high recidivism rate connotes poor efficiency of the rehabilitation model; conversely, a low recidivism rate connotes high efficiency of the rehabilitation model (Ugwuoke, 2015). Ajah & Nweke (2017b) opined that Nigeria is yet to implement the United Nations minimum standard for the rehabilitation of inmates because functional correction-based prerequisites are grossly lacking in Nigeria Correctional Service. One common phenomenon in Nigeria Correctional Service is

inadequate rehabilitation facilities. As a result of this ugly and avoidable phenomenon, some inmates relapse into crime and criminality few months after their release (Alabi & Alabi, 2011).

Inmates without effective rehabilitation through skills training and capacity building usually returns to the society as a hardened enemy of the society. Such ex-convict is often full of desire for vengeance because he or she sees himself or herself as victimized rather than corrected. In addition, such an ex-convict is likely to do more harm than good to a society invariably perceived as an oppressive system. This condition explains to a very great extent why many ex-convicts end up as recidivists (Ugwuoke, 1994). Effective rehabilitation and reformation that are coupled with proper community reintegration follow up could prove effective in reducing the ever increasing rate of recidivism. Unfortunately, research has consistently shown that time spent in custodial centre does not successfully rehabilitate most inmates, and the majority of criminals return to a life of crime almost immediately (Ekpenyong & Undutimi, 2016).

The rehabilitation and reintegration of ex-convicts into the society has emerged as a key concern of the correctional system. High recidivism indicates that correctional service has not adequately prepared many inmates for life after release from correctional facility (Ganapathy, 2018). In other words, the performance of rehabilitation programmes to inmates will be realize after placing inmates on rehabilitation programmes offered in the correctional institutions which play vital role in reducing recidivism and successful re-integration of offenders back to the society. Rates of recidivism reflect the degree to which released inmates had been rehabilitated and the role correctional programmes offered (Papa, 2015). Generally, the universal picture points out that high rate of recidivism is as a result of inefficiency rehabilitation programmes performance. Some nations all over the world offer very good rehabilitation programmes and practices to decrease recidivism and successful re-integration of inmates back to the society.

2.4 Theoretical Framework

The theoretical framework for this study was rehabilitative theory. The theory was propounded by Jean Hampton in 1970. The ideas of rehabilitation through punishment were first embodied in the penitentiaries, built during the Jacksonian era of the late 19th century. Reformers hoped that inmates would be kept in solitude, reflecting penitently on their sins in order that they might cleanse and transform themselves. This theory sees punishment from different points of view, that the aim of the penal system should be treatment and correction. For this theory, the means used to achieve treatment of inmates in custodial centres have also varied over time, beginning with silence, isolation, labor, and punishment, then moving onto medically based interventions including drugs and psychosurgery. More recently, educational, vocational, and psychologically based programmes, as well as specialized services for specific problems, have typically been put forward as means to rehabilitate inmates during their sentence (Omoni & Ijeh, 2009).

It is with this view that Dambazau (2007) noted that rehabilitation theory posits that inmate should be treated as an individual whose special needs and problems must be known in order to enable correctional officers to deal effectively with him/her. He also argued that one cannot inflict a severe punishment or inhuman treatment to inmates in the correctional system and expect them to be reformed and be reintegrating into the society upon release. Jean and Hampton however, contend that in the latter part of the nineteenth century, the penitentiary gave way to the reformatory, which attempted to rehabilitate offenders through educational and vocational training. Correctional Centres introduced a system of classification of inmates that allowed for individualized treatment. Inmates are expected to progress through graded stages, contingent on their conduct and performance in treatment programmes.

3. Research Methods

The exploratory design within the framework of the one-shot cross-sectional design was used, as it would ensure the designing of suitable pattern of gaining foundational information on a particular phenomenon and also provided an opportunity to spell out *noveau* concepts and espouse existing ones. The target population of this study was all male and female convicted inmates in Oko medium security custodial centre, Benin custodial centre, Auchi female custodial centre, Auchi medium security custodial centre, Ubiaja custodial centre, ozalla custodial farm centre and Ogba custodial farm centre, all Edo State, Nigeria. The sample size for this study was 695 and it was represented in the table below.

Table 1: Percentage Distribution of Sample Size According to Custodial Centres in Edo State

Custodial Centres	Male	Female	Total Population of Convicts	Percentage of Total Population
Oko medium security custodial centre	295	4	299	43%
Benin custodial centre	161	5	166	23.8%
Ubiaja custodial centre	39	-	39	5.6%
Auchi medium security custodial centre	80	-	80	11.5%
Auchi female custodial centre	-	12	12	1.7%
Ozalla custodial farm centre	52	-	52	7.4%
Ogba custodial farm centre	47	-	47	6.7%
Total	674	21	695	100%

Source: *Operations Department, Nigeria Correctional Centre, Edo State Command, 2023*

The sampling technique that adopted for the quantitative study was stratified random sampling. The stratified random sampling ensures that the different strata or groups within a given population are proportionately represented. A semi-structured questionnaire was used to collect quantitative data needed for the study. The questionnaire was closed and opened ended questions and was divided into different sections to reflect the socio-demographic characteristics of respondents and the objectives of the study. The semi-structured questionnaire was analysed with the aid of the Statistical Package of the Social Sciences (SPSS) version 22. The analysis of the different categories of the quantitative data was done with frequencies, percentages, tables, charts, and cross tabulations.

3.1 Analysis of Nature and Types of Rehabilitation Programmes in Custodial Centres

Table 2: Nature and Types of Rehabilitation Programmes

Question	**Response**	**Frequency**	**Percentage**
Are there different types of rehabilitation programme in this custodial centre	Yes	530	76.3
	No	165	23.7
	Total	695	100
If yes name one rehabilitation programmes	Weaving	21	3.9
	Carpentering	88	16.6
	Tailoring	98	18.5
	Poultry	57	10.8
	Soap making	50	9.4
	Electrical	87	16.4
	Education programme	38	7.2
	Others	91	17.2
	Total	530	100
Did you find it difficult to access rehabilitation of your choice	Yes	274	39.4
	No	421	60.6
	Total	695	100
Are there facilities for convicts' rehabilitation in this custodial centre	Yes	429	61.7
	No	266	38.3
	Total	695	100
Are there convicts that enrolled in vocational training in this custodial centre	Yes	453	65.2
	No	242	34.8
	Total	695	100
Are there convict that enrolled in educational programme in this custodial centre	Yes	471	67.8
	No	224	32.2
	Total	695	100
Are there treatment programme for convicts with drug addiction, mental and sexual disorder in this custodial centre	Yes	370	53.2
	No	325	46.8
	Total	695	100
Are recreational activities available in this custodial centre	Yes	440	63.3
	No	255	36.7
	Total	695	100
Do convict complete rehabilitation programme beyond six 6 months	Yes	423	60.9
	No	272	39.1
	Total	695	100

Source: *Researcher's Survey, 2023*

From Table 2 above, majority of the respondents who affirmed that there were several forms of rehabilitation programmes in correctional institutions. The respondents further enumerated the different types of rehabilitation

programmes available; among the respondents who affirmed that there were various rehabilitation programmes, 3.9% of the respondents listed weaving, 16.6% of the respondents listed carpentering as rehabilitation programme. 18.5% of the respondents, representing an overwhelming number of the entire respondents, affirmed that tailoring, a widely accepted vocational training exists in the various custodial centres while 10.8% of the respondents' listed poultry as their vocational option.

Accordingly, 16.4% and 7.2% of the respondents who participated in this study listed electrical wiring and educational programme as one of the rehabilitation programmes available in the correctional centres respectively. While 17.2% of the sampled respondents listed other aspects of rehabilitation programmes such welding and fabrication, plumbering, life skills and hair plaiting. Meanwhile, 60.6% of the respondents representing 421 claimed that there was usually no difficulty in accessing the various programmes for convicts' rehabilitation in the custodial centres and conversely, 39.4% representing 274 of the respondents who participated in the study affirmed that there were difficulties in accessing the rehabilitation programmes in the custodial centres. On the issue of availability of rehabilitation facilities, a majority of the respondents representing 61.7% affirmed that facilities are availabilities for rehabilitation of convicts but also admitted that some of these facilities are relatively old. Conversely, 38.3% of the respondents claimed that there are no facilities for convicts' rehabilitation.

On whether there were convicts that enrolled in vocational and education programmes in the custodial centres. For vocational training, majority of the respondents, constituting 65.3% representing 453 of the respondents claimed that there were significant number of convicts on vocational training programmes and 34.8% of the respondents believed that convicts do not enrol in any of the vocational training in the custodial centres. Also, for education programmes, overwhelming number of the respondents representing 67.8% (471) agreed that some convicts who want to further their education do enroll in education programmes, certificate and tertiary admission examinations such as GCE, WAEC, NECO, NABTEB and JAMB. But on the contrary, 32.2% of the respondents claimed that convicts do not enroll in education programmes.

From Table 2 above, there were considerable number of convicts in custodial centres who suffers from drug addiction, mental and sexual disorders; and these behavioural and cognitive disorders instigated them to commit crime which brought them to custodial centres. An analysis of whether treatment programmes were available for such categories of convicts, 53.2% of the respondents stated that there were treatment programmes for convicts with behavioural and cognitive disorder while 46.8% asserted that there were no therapies administered to convicts with disorder in the custodial centres. The respondents who affirmed that there were therapies for bevavioural and cognitive disorder for these categories convicts further listed some of the treatments for convicts with drug addiction, mental and sexual disorder to be behavioural counseling, medication, withdrawal method, skills training, and follow up.

As part of the reformation of the convicted inmates, the study elicited responses from respondents who participated in the study if there were recreational and sporting activities within the custodial centres to engage the convicts, 440 respondents representing 63.3% of the sampled population affirmed that recreational and sporting activities existed in the custodial centres. While 36.7% representing 272 believed that recreational and sporting activities do not exist in the custodial centres. In terms of convicts' completion of rehabilitation programmes, Table 2 above indicated that a cumulative majority (60.9%) of the respondents submitted that majority of the convicts who enrolled in various reformation programmes usually complete it beyond six months. But smaller proportion (39.1%) of the respondents affirmed that convicts do not complete their rehabilitation programmes beyond six months.

3.2 Analysis of Effectiveness of Rehabilitation Programmes on Convicts

Table 3: Effectiveness of Rehabilitation Programmes on Convicts

Question	Response	Frequency	Percentage
How would you rate the rehabilitation programmes?	Positive Rating	298	42.9
	Negative Rating	248	35.7
	No rating	149	21.4
	Total	695	100
Would you say these rehabilitation programme has effectively changed their lives?	Yes	391	56.3
	No	304	43.7
	Total	695	100
Which of this rehabilitation programme or treatment changed your life positively?	Education programme	103	14.8
	Vocational training	260	37.4

	Life skill training	100	14.4
	Mental health	95	13.7
	Cognitive behavioural Treatment	39	5.6
	None	98	14.1
	Total	695	100
Are these rehabilitation programmes properly funded?	Yes	240	34.5
	No	455	65.5
	Total	695	100

Source: *Researcher's Survey, 2023*

On the effectiveness of rehabilitation programmes on convicts, from Table 3 above, a majority of the respondents which constituted 298 (42.9%) respondents affirmed that the programmes have positive rating while 248 (35.7%) respondents claimed that the various rehabilitation in the custodial centres have negative rating. Meanwhile, 149 (21.4%) could not rate any of the rehabilitation programmes either positive or negative. With 56.3% of the respondents affirming that the rehabilitation programmes have effectively changed the lives of the convicts. The rehabilitation programmes have not effectively changed the lives of the convicts, this was the position of 43.7% of the respondents. On the types of the rehabilitation programmes or treatment that has changed the lives of the convicts, 14. % of the respondents affirmed that education programme has effectively changed the lives of some convicts in the custodial centre. By aggregate, majority of the respondents representing 37.4 claimed that vocational training programmes has also impact positively on the lives of convicts.

Furthermore, 14.4% of the respondents submitted that some convicts received life skill training such as anger management, resilience and ability to cope with problems, self-control, emotional intelligence, and decision making and problem solving. However, 13.7% of the respondents submitted that some convicts received treatment for mental related illness; 5.6% of the respondents also admitted that some convicts received cognitive behavioural treatment such as cognitive restructuring, guided discovery, exposure therapy, thought recording, relaxation stress reduction techniques and behavioural experiments and 14.1% of the respondents affirmed that none of the rehabilitation programmes has effectively changed the lives of convicts. On the aspect of funding of the rehabilitation programmes, 65.5% of the respondents claimed that the programmes in the custodial centres were poorly funded and 34.5% of the respondent admitted that the programmes were not poorly funded.

4. Discussion of Findings

The study found out that there were different types of rehabilitation programmes in the custodial centres. The availability of the array of rehabilitation programmes was to meet the rehabilitation needs of the convicts. The finding was supported by Uche et al (2015) who asserted thhat tere were a lot of rehabilitation programmes convicts could participate in. The study discovered that convicts could access these programmes easily immediately they were admitted into the custodial centre.

It was also discovered in the study that a majority of the convicts enrolled overwhelmingly in different vocational trainings of their choice. However, a handful number of convicts who were desirous of pursuing their education in the custodial centre enrolled in various educational programmes available such as adult literacy and certificate programmmes. This finding was corroborated by the assertion of Oladokun (2021) that more inmates in the various custodial centres across the country were indicating interest to further their education, having gone through several education reform programmes.

The study also found out that there were other life changing programmes or treatment within the custodial centres. The programmes were communication and life skill training, anger control, social skills, sexual disorder treatment, treatment for mental illness, cognitive and behavioural modifications etc. However, the study discovered from the majority of respondents (98.3%) that work-release programme, as part of rehabilitation programmes of custodial centres globally was not available in custodial centres in the study areas specifically and generally in custodial centres across the federation.

A majority of the respondents in entire sampled population unanimously agreed that the rehabilitation programmes available in the custodial centres has effectively change the lives of convicts in one way or the other. This finding was the submission of 56.3% of the respondents and it was supported by Ekpenyong & Undutimi (2016) who opined that majority of the respondents (62%) sampled in their study claimed that rehabilitation programmes successfully transformed the lives of inmates. Based on the confirmation of the majority (59.6%) of the respondents, the study

discovered that corrections or welfare officers in the various custodial centres in Edo State have always participated in the treatment or rehabilitation of convicts by correctives services, this finding was supported by Schaefer (2018).

5. Conclusion

The nature and types of rehabilitation programmes or services available were such a programmes designed to change the crimal behaviour convicted inmates to one that conforms to acceptable behaviours. According to United Nations Standard Minimum Rule for the treatment of inmates, Section 58 & 59 states that correctional centres across the globe are saddled with the responsibility of designing, initiating and implementing rehabilitation programmes to reform the inmates while in lawful custody, so as to live a law abiding and supporting life upon discharge. The most common of the programmes and services are vocational and educational programmes, social welfare, religious services, recreational activities, and the permission of communication between inmates and their families and friends.

The Nigerian Correctional Service has continued to offer various inmates rehabilitation programmes and vocational and educational training that would assist the inmates to reintegrate into the society and actively participate in lawful activities upon discharge. The skills acquired help the inmate to have a competitive advantage over others in gainful employment and eliminate the opportunities of returning to criminal life. The major purpose of acquiring skill while in custodial centre is to modify the inmates' behaviour by diverting their attention away from crime and focusing it on legitimate activities. Rehabilitation has become an integral part of inmates in most country including Nigeria. Unarguably, rehabilitation programmes reduce re-arrest, reconviction and re-incarceration of ex-convicts.

6. Recommendations

Based on the conclusion of this study, the following recommendations arise:

- Government should introduce prison work programme that allows inmates to take up paid job from the prison with electronic monitoring. This programme allows inmates to be busy and maintain work history and experience after release.
- Government and stakeholders in corrections help discharge convict to mitigate obstacles usually experienced by them by creating a reintegration model that will discharge convicts to easily cope with others in the society.
- Government should plan empowerment for inmates before discharge. When inmates are eventually discharged, it will be easy for them to live successfully in the society, thereby preventing recidivism.
- There is a need to institutionalize contemporary rehabilitation programmes and facilities with international best practices, capable of reforming and rehabilitating convicted inmates with modern vocational and educational skills.
- Government should build modern custodial centres in the country. Most of the existing custodial centres in Nigeria are old because they were built during the colonial era. The existing ones can also be upgraded to meet custodial and rehabilitation goals.

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Beyond Traditional Metrics: Rethinking Assessment in Agricultural Science Curriculum Design

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Abstract. By going beyond conventional measures, this research article investigates the necessity to reconsider assessment in the design of agricultural science curricula. The goal of the study is to introduce the Comprehensive evaluation Framework, a conceptual model that incorporates qualitative evaluation techniques, strikes a balance between quantitative and qualitative metrics, and tackles obstacles and constraints in the teaching of agricultural science. The theoretical framework shows the advantages and possibilities of qualitative evaluation methods while examining the shortcomings of conventional assessment metrics in agriculture education. It also highlights how crucial it is to take context into account when designing assessments. The conceptual framework outlines the goals and objectives of agricultural science education, enumerates the necessary skills and knowledge, and incorporates moral and sustainable conduct. Contextual considerations, integration of quantitative measures, and qualitative assessment methodologies are some of the components of the Comprehensive Assessment Framework that are described in the conceptual model. It examines the connections and exchanges among these elements and offers suggestions for usage and execution. The practical ramifications of reconsidering assessment in the context of agricultural science curriculum design are covered in the paper. It emphasises how assessments should be in line with learning objectives, how to better engage and motivate students, how to promote critical thinking and problem-solving abilities, how to support ethical and sustainable practices, and how to encourage professional growth and lifelong learning. This research report concludes by advocating for a paradigm change in agricultural science education assessment procedures. A more thorough and relevant assessment process that equips students for the changing demands of the agricultural science profession can be created by educators by including qualitative assessment methods, striking a balance between metrics, removing obstacles, and involving stakeholders. Future research should focus on exploring the effectiveness of the Comprehensive Assessment Framework and further refining its implementation in agricultural science curriculum design.

Keywords: Assessment, Agricultural science, Curriculum design, Qualitative methods, Quantitative and qualitative metrics, Contextual factors

1. Introduction

Recent years have seen enormous breakthroughs and changes in the field of agricultural research due to a variety of variables, such as evolving customer demands, environmental concerns, and technological advancements. Agricultural science education must therefore adapt to these shifting dynamics and give students the knowledge, skills, and competences they need to address the opportunities and issues in the agricultural economy (Karthikeyan, 2021). However, traditional assessment techniques in agricultural science education typically focus on quantitative metrics, such as exams and standardised tests, which are unable to fully capture the complex character of learning in this field. These approaches often focus on memorising of material rather than the application of knowledge, critical thinking, problem-solving, and other important talents required in real-world agricultural circumstances (Al-Mutawah et al., 2022).

This paper aims to investigate alternative approaches to evaluation in agricultural science curriculum design and to propose a comprehensive conceptual model that

incorporates these approaches. This work aims to add to the existing discussion on rethinking assessment in agricultural science education by outlining the possible advantages of qualitative assessment approaches and examining the shortcomings and restrictions of conventional evaluation measures. The goal of the suggested conceptual model is to give curriculum designers, teachers, and legislators a workable framework that incorporates a variety of assessment techniques—all of which are required to fairly represent the intricacy of teaching agricultural science. By taking into consideration not only the skills and knowledge needed, but also the increasingly significant ethical and sustainable practices in the agriculture sector, it seeks to close the gap between theory and practice.

In the field of education, reevaluating assessment in light of agricultural science curriculum design is a significant and relevant subject. By going beyond conventional measurements, educators can get a more complete picture of students' abilities and competences and better equip them to fulfil the demands of the agricultural industry.

Furthermore, this topic is highly relevant when talking about how agriculture is changing, including the need for sustainable practices, the use of cutting-edge technologies, and the evaluation of socioeconomic and environmental factors. A curriculum that incorporates qualitative assessment methods and contextual components would better align agricultural science education with the evolving needs of the agricultural industry and society.

2. Assessment in Agricultural Science Education

Assessment is critical to determining the knowledge, skills, and competences that students have acquired in agricultural science education. Within this field, conventional evaluation metrics generally focus on quantitative assessments, such exams and standardised tests, which measure students' ability to memorise and retain information. These assessments are helpful for assessing certain aspects of learning, but they usually fall short of accurately capturing the intricate and varied character of agricultural science education (Gawryla, 2022).

Written exams and multiple-choice tests are the mainstays of traditional assessment metrics in agricultural science education. They gauge students' retention and application of factual knowledge. Because these criteria are simple to apply and allow for objective grading, they have been around for a while. They fall short, though, when it comes to evaluating higher order cognitive capabilities, applying knowledge practically, and fostering the growth of critical and analytical thinking skills (Jaenudin et al., 2020).

Moreover, typical assessment instruments often overlook the contextual factors that influence learning outcomes in agricultural science education. The extremely complicated field of agriculture includes a wide range of sub-disciplines, such as crop science, animal science, and agricultural economics. Therefore, it would be impossible for a one-size-fits-all evaluation strategy to adequately capture the unique skills and proficiencies required in each subject (Messina et al., 2020).

Furthermore, an overemphasis on quantitative measures may lead to a limited perspective of student achievement, ignoring crucial qualitative elements of education including communication, teamwork, problem-solving abilities, and the real-world application of information. These abilities are essential for success in the agricultural sector since it calls for experts who can handle difficult problems, adjust to shifting conditions, and make wise choices (Chinoy et al., 2021).

Moreover, the wider objectives of agricultural science education, which place a growing emphasis on the significance of moral and sustainable practices, might not be supported by the application of conventional assessment criteria. Conventional evaluation methods frequently ignore these crucial elements, neglecting to measure students' comprehension of the moral consequences of their work, their capacity to practise sustainable agriculture, and their awareness of socioeconomic and environmental factors (Rodenburg, 2021).

3. Limitations of Traditional Assessment Metrics

The efficacious measurement of student learning and skill development in agricultural science education is impeded by a number of limitations associated with traditional assessment tools. Among these restrictions are:

The application of knowledge is frequently subordinated to the memorising of facts and information in traditional assessment criteria. This method falls short in evaluating students' critical thinking, data analysis, and problem-solving abilities—all of which are crucial in the agriculture industry (DeWaters, 2020).

A practical education in agricultural science includes laboratory methods, fieldwork, and machinery operation. Traditional metrics, on the other hand, may not sufficiently evaluate students' capacity to apply what they have learned in real-world situations because they largely concentrate on theoretical knowledge.

There are several sub-disciplines in the agricultural industry, as well as regional differences. The specialised knowledge and abilities needed in these many contexts might not be captured by traditional assessment criteria, creating a mismatch between evaluation and actual farming operations (Ferand, 2022).

Agricultural research frequently calls for cooperation and group efforts. But conventional evaluation criteria tend to focus on individual performance and may not fully assess students' capacity for teamwork, communication, and collaboration (Chang et al., 2015).

Soft skills like communication, problem-solving, and leadership are crucial for success in the agriculture industry. But conventional assessment metrics frequently ignore the assessment of these abilities in favour of subject knowledge (Hawari, 2020).

In today's agriculture industry, ethical and sustainable practices are becoming more and more crucial. However, it's possible that conventional assessment metrics are insufficient to fully gauge how well students comprehend these problems and how they may apply them to their work.

Students studying agricultural science must be able to analyse challenging issues and come up with creative solutions. However, memorising and repeating facts are frequently the main emphasis of standard assessment metrics, which miss opportunities to evaluate students' critical thinking and problem-solving skills (Xiang, 2023).

Conventional evaluation metrics frequently ignore the practical application of concepts in actual agricultural contexts in favour of focusing on theoretical knowledge. This restriction makes it more difficult to evaluate how well students can apply their knowledge to real-world scenarios like crop rotation plans, livestock breeding techniques, and farm management decisions.

Summative assessments, like final exams for a course or semester, are frequently given preference in traditional assessment measures. Although these tests have advantages, it's possible that they don't give a clear picture of how well kids are doing during the entire learning process. Traditional assessment methods frequently ignore formative assessments, which offer continuous feedback and permit reflection and growth (Grover, 2021).

Students studying agricultural science must be able to think outside the box and come up with novel solutions to the field's growing problems. But conventional evaluation metrics might not adequately reflect students' capacity to come up with original ideas, suggest creative fixes, and adjust to changing farming methods (Pfeiffer et al., 2021).

Environmental concerns, technological advancements, and market demands all contribute to the constant change in the agriculture sector. It's probable that the traditional evaluation criteria fall short of these changing requirements, creating a discrepancy between the assessed skills and abilities and what agriculture-related enterprises actually require.

4. Alternative Approaches to Assessment

4.1 Theoretical Perspectives on Holistic Assessment

A more thorough framework for assessments is supported by theoretical ideas that should be considered while analysing different techniques of evaluation in agricultural science education. These theoretical positions provide incisive justifications for the benefits and guiding principles of holistic assessment.

Constructivism is one such theoretical viewpoint that holds that learning is an active process of creating knowledge and understanding through interactions with the outside world. Constructivists consider that rather than focusing solely on rote memory, evaluations should measure students' critical thinking, problem-solving, and application of information in real-world circumstances. This point of view argues that alternative methods of evaluation are required in agricultural science programmes that emphasise practical application and critical thinking skills (Ranjana, 2022).

An additional theoretical perspective that emphasises the social and cultural context of education is the socio-cultural theory. According to this point of view, assessments should consider the cooperative and social components of agricultural science instruction. This means that evaluation techniques should consider the capacity for teamwork, communication, and collaboration in addition to assessing individual

performance. In the context of agriculture, alternative assessment methods like group projects and peer evaluations can offer insightful information on students' abilities to collaborate and operate as a team (McMurtry et al., 2016).

The ecological perspective also acknowledges the significance of taking into account the larger environmental and contextual elements that affect assessment and learning. This approach to agricultural science education places a strong emphasis on the evaluation of students' knowledge of moral and sustainable behaviour as well as their capacity to take socioeconomic and environmental factors into account when producing their work. A more thorough assessment of students' knowledge and abilities in these areas can be obtained using alternative assessment techniques, such as case studies or simulations that take these elements into account (Häyhä, 2014).

4.2 Advantages and Prospects of the Qualitative Assessment Approach

Qualitative evaluation techniques are advantageous in many ways and have the potential to improve agricultural science education assessment procedures. These techniques place an emphasis on evaluating students' knowledge, abilities, and competences in a more thorough and all-encompassing manner. The following are some advantages and potential uses of qualitative assessment methods:

A more thorough assessment of students' complicated skills and competences is made possible by qualitative assessment techniques like case studies, portfolios, and project-based assessments. With the help of these techniques, students can demonstrate their capacity for critical thought, their ability to solve problems, and their ability to apply knowledge practically in agricultural settings. Qualitative evaluation techniques capture these elements, giving rise to a more realistic picture of students' readiness for the demands of the agriculture sector (Price et al., 2022).

Metrics used in traditional assessments frequently emphasise lower-order cognitive abilities like memory and recall. Conversely, higher-order thinking abilities including analysis, synthesis, evaluation, and creativity are promoted by qualitative assessment techniques. Deeper understanding and the development of advanced cognitive skills are fostered by qualitative evaluation approaches, which incorporate tasks that demand critical thinking and novel applications of the knowledge.

With the help of qualitative evaluation techniques, students can take charge of their education and actively participate in their education. These approaches boost student enthusiasm and interest in agricultural science education by incorporating projects, research, and real-world problem solving. When students perceive the relevance and practicality of their exams for their future employment, they are more likely to be invested and interested in their education (DeWaters, 2020).

With the help of continuing feedback and reflection, students can continually enhance their work and learning process through the use of qualitative evaluation methodologies. Throughout their study of agricultural science, students' growth and development are supported by this formative assessment approach. Through self-reflection, peer and instructor criticism, and self-evaluation, students can pinpoint areas that require development and gain a more comprehensive understanding of their strengths and weaknesses.

It is possible to evaluate students' comprehension of moral and sustainable agricultural practices through the use of qualitative assessment techniques. These techniques make it possible to assess how well pupils are able to weigh ethical, environmental, and socioeconomic considerations when making decisions. Qualitative methods aid in the development of accountable and diligent agricultural professionals by incorporating these factors into assessments (Cannaerts et al., 2014).

Through the use of actual, real-world settings, students can apply their knowledge and abilities in qualitative evaluation approaches. The authenticity of the exam adds to its relevance and applicability by evaluating students on their ability to solve real-world agricultural difficulties. Qualitative evaluation techniques offer a more accurate gauge of students' preparedness for the agriculture sector by mimicking real-world scenarios (Price et al., 2022).
It is possible to customise qualitative evaluation techniques to each student's unique requirements and strengths. Differentiated evaluations that take into account the wide range of student talents and learning styles are made possible by this individualization. Education professionals can give students a more relevant and individualised assessment of their growth and accomplishment by customising the assessment method for each student.

Students are frequently required to evaluate their own work, reflect on their learning experience, and create improvement goals when using qualitative evaluation

methods. The assessment's metacognitive component encourages self-awareness, self-control, and self-directed learning. Pupils gain a better knowledge of how they learn and are better able to keep an eye on and modify their learning tactics for subsequent assignments.

Qualitative assessment methods, such as oral presentations and group discussions, provide opportunities for students to enhance their communication skills. Effective communication is vital in the agricultural industry, as professionals need to convey their ideas, collaborate with stakeholders, and engage in effective knowledge transfer. By incorporating assessments that require effective communication, qualitative methods contribute to the development of this crucial skill (Bertrand, 2020).

An overview of students' development over time can be obtained through the use of qualitative assessment techniques. Through the use of projects, portfolios, or reflective journals, educators can monitor students' progress and evaluate the overall growth of their skills and competencies. This long-term assessment viewpoint offers important data for programme evaluation and enhancement and permits a more thorough knowledge of students' learning trajectories.

5. Consideration of Contextual Factors

The way in which the learning environment is shaped, how students acquire knowledge, and the relevance and application of examinations are all influenced by contextual factors. A few important contextual aspects to think about are:

Regional and cultural variations: Different locations and civilizations may have quite different agricultural methods and issues. It is imperative to take into account the particular circumstances of the assessment. This entails being aware of the regional agricultural systems, customs, and economic influences on the sector. Assessments can be created to represent the particular knowledge and abilities needed in the given environment by taking these variances into account (Zhou et al., 2022).

Infrastructure and educational resources: Depending on the region and educational institution, there may be differences in the quantity and calibre of laboratories, equipment, and other technologies. In order to make sure that assessments are realistic and possible within the given environment, they should consider the resources that are available to pupils. Furthermore, it is important to take into account any constraints or discrepancies in resource accessibility to guarantee impartiality throughout the evaluation procedure (Karimi et al., 2018).

Socioeconomic considerations: The knowledge and skills required in the agricultural sector can be influenced by socioeconomic factors, which include income levels, market accessibility, and the degree of agricultural development. Evaluations must to take these things into account and assess students' knowledge of the financial ramifications of their job, their capacity to deal with socioeconomic issues in the community, and their potential for sustainable farming methods (Correa-Cano, 2022).

Environmental factors: The teaching of agricultural science must take into account the natural world and ecological aspects. Students' knowledge of resource management, environmental sustainability, and methods for coping with climate change should all be included in assessments. Assessments can appraise students' capacity to use sustainable practices and tackle environmental issues in their work by taking the environmental context into account (Major et al., 2017).

Expectations and needs of the industry: The agriculture sector is dynamic and ever-changing. To make sure that students are ready for the needs of the industry both now and in the future, assessments should be in line with industry standards and expectations. This could be working on initiatives centred around the industry, speaking with experts in the field, or creating assessments that take into account benchmarks unique to the industry (Durrans et al., 2020).

6. Defining the Goals and Objectives of Agricultural Science Education

Defining the field's goals and objectives is crucial to developing a conceptual framework for agricultural science education. A guiding framework for curriculum development, teaching tactics, and assessment procedures is provided by these goals and objectives. When determining the aims and objectives of agricultural science education, remember the following important factors:

Providing students with ***a strong foundation of knowledge in the subject*** is one of the main objectives of agricultural science education. This entails being aware of the fundamentals of agricultural economics, soil and water management, plant and animal sciences, and sustainable practices. The goal is to provide students with a thorough understanding of the

scientific concepts that form the foundation of the agricultural sector (Looper et al., 2022).

Education in agricultural science ought to have ***a strong emphasis on using knowledge practically in everyday situations***. The objective is for students to be able to use their theoretical knowledge to handle issues in agriculture, come to wise conclusions, and carry out sustainable practices. Fieldwork, experiential learning, and hands-on experiences must all be integrated to achieve this goal.

Developing students' critical thinking and problem-solving abilities is another crucial objective of agricultural science education. This entails instructing students on how to assess evidence, analyse intricate agricultural problems, and come up with creative solutions. The aim is to cultivate an inquisitive mindset and equip students to address the obstacles encountered by the agriculture sector (Boluk, 2022).

In the agriculture industry, where working in diverse teams and communicating with stakeholders is common, ***effective communication and cooperation skills are crucial.*** The goal of agricultural science education should be to help students become more proficient communicators of scientific ideas, team players, and knowledge transfer agents. The aim is to equip students with the necessary skills to engage in productive professional relationships in the agricultural sector (Lee, 2022).

It is critical that agricultural science education ***instill a feeling of responsibility and ethical decision-making in light of growing concerns about environmental sustainability and ethical considerations in agriculture.*** The intention is to produce graduates who can apply ethical and sustainable work practices in their careers and who are aware of the social, economic, and environmental effects of their labour.
Identifying Key Competencies and Skills Required

Identifying the essential knowledge and abilities that students must gain is just as crucial as outlining the aims and objectives of agricultural science education. These abilities and proficiencies act as standards for evaluating students' preparedness for the agriculture sector.

Research and scientific inquiry skills: Students studying agricultural science should be prepared to perform both types of research and scientific inquiry. Proficiency in experimental design, data collecting and analysis, and scientific literature interpretation are all part of this. The goal is to produce students who can make decisions based on evidence and lead to breakthroughs in the profession (Gobert et al., 2013).

Technical skills: Students should graduate from agricultural science programmes with a variety of industry-relevant technical skills. This includes becoming proficient with data analysis tools, precision farming technology, laboratory procedures, and operating agricultural machinery. The aim is to improve students' employability and prepare them for the hands-on aspects of agricultural job.

Problem-solving and critical thinking: Agricultural science education should foster students' problem-solving and critical thinking abilities. This involves developing their ability to analyze complex agricultural issues, evaluate evidence, and generate innovative solutions. The objective is to produce graduates who can address the challenges faced by the industry and contribute to its sustainable development (Pfeiffer et al., 2021).

Collaboration and communication: Since the agriculture industry frequently requires teamwork and interaction with a variety of stakeholders, effective collaboration and communication skills are essential. Teaching agricultural science should place a strong emphasis on helping students become proficient communicators—both written and oral—as well as team players and efficient knowledge brokers. Producing graduates who can collaborate and interact with others in a professional situation is the goal.

Business and entrepreneurial skills: Students should be taught business and entrepreneurial skills in agricultural science programmes, given the growing emphasis on agribusiness and entrepreneurship. This involves having an understanding of risk assessment, financial management, marketing tactics, and company management concepts. The goal is to equip students with the skills necessary to recognise, seize, and contribute to the economic growth of the agriculture business (Fahmi et al., 2022).

7. Incorporating Ethical and Sustainable Practices

To adequately prepare students for the obligations and issues they will encounter in the agricultural science field, ethical and sustainable practices must be integrated into agricultural science curricula. A few things to think about while including moral and environmentally friendly activities into the curriculum are:

The value of making moral decisions should be emphasised in agricultural science education. This covers talks about social responsibility, environmental conservation, animal welfare, and research ethics. It is important to support students in critically analysing moral conundrums and creating a framework for morally responsible decision-making in their future employment.

Principles of sustainable agriculture, such as integrated pest control, biodiversity preservation, soil conservation, and water management, should be included in the curriculum. The environmental, social, and economic effects of various agricultural techniques should be discussed with students, and they should be introduced to sustainable farming practices (Pretty et al., 2018).

Providing students with exposure to sustainability initiatives in the agricultural industry can enhance their understanding and appreciation of sustainable practices. This can include field trips to sustainable farms, guest lectures from industry experts, and involvement in community-based sustainability projects. Such experiences can motivate students to adopt and promote sustainable practices in their future careers.

Ethical and sustainable practices in agriculture require an interdisciplinary approach. The curriculum should incorporate perspectives from various disciplines such as environmental science, economics, sociology, and policy studies. This interdisciplinary approach can help students understand the complex interdependencies between agriculture and other societal and environmental systems (Trimmer et al., 2017).

Encouragement should be given to students to interact with policymakers, farmers, and environmental organisations, among other stakeholders. Through this interaction, they may gain insightful knowledge about the difficulties and viewpoints of many agricultural stakeholders. It can also encourage conversation on morality and environmentally friendly behaviour, as well as a sense of responsibility.

8. Conceptual Model: A Comprehensive Assessment Framework for Agricultural Science Curriculum Design

8.1 Components of the Model

Several essential elements are included in the conceptual model for a thorough assessment framework in agricultural science curriculum design. Together, these elements offer a comprehensive method for evaluating the learning outcomes of students.

Learning Objectives: The approach begins with well-defined learning objectives that specify the skills, information, and abilities that students should learn during the course of the curriculum. The foundation for creating evaluations that support the intended learning outcomes is provided by these objectives.
Assessment Methods: To capture many facets of student learning, the model integrates a range of evaluation techniques. Written tests, hands-on exercises, projects, portfolios, and presentations are a few examples of these techniques. Through a variety of evaluation techniques, teachers can compile thorough documentation of their students' skills and knowledge.

Rubrics and Criteria: In order to give precise instructions and benchmarks for assessing student achievement, rubrics and criteria are created. These rubrics provide precise standards and performance levels that aid in ensuring impartial and uniform evaluation by various assessors. They also let students know exactly what is expected of them and help them with self-evaluation.

Integration of Qualitative evaluation: The approach incorporates methods for qualitative evaluation, including observations, interviews, and reflective journals. These techniques give teachers insight into the critical thinking, problem-solving, and communication skills of their pupils. Nuanced features of student learning that may be difficult to measure using only quantitative measurements are captured by qualitative assessment.

8.2 Integration of Quantitative Metrics

Within the assessment framework, quantitative metrics are essential. These metrics offer quantifiable measures of how well students are performing and how far they have come in accomplishing the learning goals. The following are a few instances of quantitative measurements that can be incorporated into the model:

Exam scores: It is possible to assess students' knowledge and comprehension of agricultural science ideas through traditional written exams. These scores can be examined to determine what areas are strong points and what still needs improvement.

Performance assessments: Quantitative standards that have been predetermined can be used to evaluate

practical demonstrations like fieldwork or laboratory experiments. This makes it possible to evaluate students' technical proficiency and knowledge application objectively.

Data analysis: Data gathered from experiments or research projects can be quantitatively analysed to reveal information about how well students can evaluate and interpret scientific data. Graphing, statistical analysis, and other quantitative techniques can be used to accomplish this.

Simulation exercises: Students' decision-making abilities and their capacity to apply theoretical information in real-world situations can be evaluated through computer-based simulations. It is possible to assess the efficiency of their decision-making process through quantitative measurements.

8.3 Contextual Factors

The model also takes into account contextual factors that may influence student learning and assessment outcomes. These factors consider the unique characteristics of the agricultural science education environment, such as:

Diversity of learners: The model takes into account the wide range of student backgrounds, skill levels, and learning preferences. It considers the requirement for inclusive assessment procedures that provide equal chances for success and accommodate a range of learners.

Industry relevance: The approach recognises how critical it is to match assessment requirements and expectations with those of the industry. It makes sure that evaluation techniques are grounded in practical applications and takes into account the skills and abilities needed in the agriculture industry.

Ethical and sustainable considerations: Sustainable and moral farming methods are also considered contextual variables. The approach incorporates evaluation techniques that gauge students' comprehension of moral decision-making and their capacity to use sustainable practices in their job.

8.4 The Comprehensive Assessment Framework

Table 1: Assessment framework

Component	Description	Examples/Tools/Techniques
Learning Objectives	Clearly defined educational outcomes that articulate the knowledge, skills, and competencies students should acquire.	Bloom's Taxonomy, SMART goals
Assessment Methods	A variety of assessment methods (e.g., exams, projects, presentations) used to capture different aspects of student learning.	Written exams, practical demonstrations, portfolios
Rubrics and Criteria	Clear guidelines and standards for evaluating student performance, providing consistency and transparency in assessment.	Analytic rubrics, holistic rubrics
Integration of Qualitative Assessment Methods	Qualitative assessment methods (e.g., reflective journals, interviews) used to capture nuanced aspects of student learning not easily measured quantitatively.	Self-assessment, peer assessment
Integration of Quantitative Metrics	Quantitative metrics (e.g., exam scores, performance assessments) used to measure student performance and progress towards learning objectives.	Weighted scoring, grade point average (GPA)
Contextual Factors	Consideration of factors that may influence student learning and assessment outcomes, such as diversity of learners, industry relevance, and ethical and sustainable considerations.	Students' cultural backgrounds, industry standards, sustainability frameworks

The main elements of an extensive assessment framework for agricultural science curriculum design are shown in the assessment framework table. The following lists each element along with some instances of useful tools and methods:

Learning Objectives: This section discusses clearly defined learning objectives that outline the kinds of knowledge, skills, and abilities that students should acquire. Two examples of practical tools and techniques include Bloom's Taxonomy, which helps classify learning objectives based on cognitive complexity, and SMART goals, which ensure that targets are explicit, measurable, attainable, relevant, and time-bound.

Assessment Methods: This part consists of several assessment methods that are used to record different aspects of student learning. Portfolios, practical demonstrations, and written exams are a few examples of evaluation techniques. These approaches all offer

different perspectives on the knowledge, skills, and talents of pupils.

Rubrics and Criteria: Standards and recommendations for assessing student achievement are called criteria and rubrics. Analytical rubrics break down the assessment criteria into distinct sections, whereas holistic rubrics provide an evaluation of the user's overall performance. Rubrics and criteria help to preserve consistency and transparency in assessment by explaining expectations to students and fostering an unbiased and equitable evaluation process.

Integration of Qualitative Assessment Methods: This component includes qualitative assessment methodologies to measure aspects of student learning that are challenging to define mathematically. Interviews, reflective journals, and self-evaluation are a few examples of qualitative assessment methods. These methods provide educators with knowledge on their students' critical thinking, problem-solving, and communication abilities.

Integration of Quantitative Metrics: This section tracks students' progress towards learning objectives and assesses their performance using quantitative data. Exam results, performance reviews, and grade point averages (GPAs) are a few instances of quantitative measurements. These metrics help identify areas that require improvement and provide quantitative assessments of students' achievements.

Contextual Factors: This part takes into account a number of variables that could affect how well students learn and perform on assessments. These variables include the variety of students, the industry's applicability, and ethical and environmental concerns. Contextual elements include things like environmental guidelines, industry norms, and the cultural backgrounds of the students. Taking these things into account guarantees that evaluation techniques are equitable, in line with business requirements, and encourage moral and environmentally friendly behaviour.

8.5 Application and Implementation of the Model

The following actions can be made in order to adopt and implement the comprehensive assessment framework in agricultural science curriculum design in an efficient manner:

Acquire a comprehensive comprehension of the elements, connections, and exchanges among the evaluation structure. To understand the ideas and tenets that underpin the model, go over the explanations and illustrations in the table.

Make that the learning objectives are precise, unambiguous, and in line with the intended learning results. Examine current curriculum materials and speak with subject-matter specialists to clarify and improve the goals.
Choose a variety of assessment methods that align with the learning objectives. Consider the nature of the subject matter, the skills to be assessed, and the available resources. Blend different methods such as exams, projects, and presentations to capture diverse aspects of student learning.

Create rubrics and criteria that provide clear guidelines for evaluating student performance. Specify the criteria for each assessment method and establish performance levels for each criterion. Design rubrics that align with the learning objectives and enable consistent and fair evaluation.

Use qualitative evaluation techniques to record the complex facets of students' learning. Create self-assessment tools, conduct structured interviews, or create criteria for reflective diaries. Make sure these techniques support the quantitative measures and are in line with the learning objectives.

Integrate quantitative metrics such as exam scores and performance assessments to measure student performance objectively. Determine appropriate scoring systems, weightings, and grading scales. Ensure that the assessment metrics align with the learning objectives and provide meaningful data on students' progress.

Consider contextual elements that could affect the way students learn and perform on assessments. Think about the variety of students, the industry's significance, and environmental and ethical issues. Modify the evaluation procedures and standards to take into account various industrial norms, cultural backgrounds, and sustainable frameworks.

Get input from educators and students by having a small sample of students pilot the assessment framework. Utilise this feedback to improve the criteria, rubrics, and assessment techniques. Make the required modifications to guarantee the validity and efficacy of the framework.

Implement the assessment framework across the agricultural science curriculum. Monitor its implementation and evaluate its effectiveness periodically. Collect data on student performance,

feedback from students and educators, and make adjustments as needed.

Review and enhance the assessment framework frequently in response to comments and continuous assessment. Keep up of current developments in assessment best practices and integrate fresh methods and instruments to augment the efficacy of the framework.

8.6 Rethinking Assessment in Agricultural Science Curriculum Design

Using qualitative evaluation techniques is essential to rethinking assessment in the creation of agricultural science curricula. These techniques offer insightful information about how well students think critically, solve problems, and apply their knowledge in real-world situations. Let's examine three essential qualitative assessment techniques that can be successfully included into the design of agricultural science curricula:

Case Studies and Examples

Case studies and examples are useful tools for assessing how well students apply their theoretical knowledge to real-world scenarios. By presenting hypothetical or real-world agricultural cases, students are compelled to use critical thinking, identify key issues, and develop practical solutions. With this method, it is feasible to evaluate students' critical thinking skills, decision-making abilities, and understanding of agricultural ideas in practical contexts (Al-Mutawah et al., 2022).

Observation and Reflection

Students can actively participate in their education and show that they grasp agricultural ideas through observation and reflection. Organising observations allows teachers to assess how well their students perform in fieldwork, lab experiments, and practical assignments. Following the observation, students might engage in reflection activities where they assess their learnings, identify their benefits and drawbacks, and draw the link between theory and practice. This methodology cultivates introspection and enhances students' metacognitive skills (Anwari et al., 2015).

Portfolios and Project-based Assessment

With the help of portfolios and project-based assessments, students can present their learning outcomes and progress over time. Research papers, reports, presentations, and practical projects are just a few examples of the work samples that students can gather into a portfolio. This approach offers a thorough understanding of the capabilities that students possess, including creativity, problem-solving, communication, and research ability. Furthermore, project-based learning gives students the opportunity to tackle real-world agricultural problems, encouraging collaboration, creativity, and the application of information in a practical setting (Evans et al., 2018).

Balancing Quantitative and Qualitative Metrics

A balanced use of both quantitative and qualitative measures is crucial for designing thorough assessments within agricultural science curricula. This balance gives instructors a well-rounded approach to assessment and allows for a more thorough knowledge of students' learning outcomes.

Triangulation of Assessment Data

Using numerous data sources to confirm and corroborate assessment findings is known as triangulation. Teachers can get a more comprehensive view of students' knowledge, abilities, and competencies by integrating qualitative assessment techniques like case studies and reflection exercises with quantitative metrics like exam scores and performance assessments. By using several sources and viewpoints to cross-reference evaluation data, triangulation improves its validity and dependability (Bano, 2018).

For example, the qualitative evaluation approach can reveal information about a student's capacity to apply theoretical knowledge in a practical setting if they perform very well on a written exam but struggle during a practical demonstration. On the other hand, low exam marks might point to a mismatch between the student's preferred method of learning and the exam structure, particularly if the student shows a great capacity for critical analysis and problem-solving in a case study. Assessing students' abilities more accurately and identifying such gaps are made possible by triangulating assessment data.

Mixed Methods Approaches

In a single assessment assignment or project, mixed methods techniques deliberately combine quantitative and qualitative assessment methodologies. This makes it possible to evaluate students' learning results in greater detail. For example, teachers can create an assignment that calls for a reflective analysis (qualitative) and a written report (quantitative) of the

procedure and results. In this manner, the ability of students to carry out research, evaluate information, and effectively explain their conclusions while simultaneously considering the constraints and ramifications of their work is evaluated (Alordiah et al., 2022; Ekanem et al., 2019).

Students that use mixed methods approaches engage with a wider variety of assessment activities and exhibit a greater range of skills, making for a fuller assessment experience. Teachers can capture both the measured outputs and the deeper comprehension and application of knowledge by blending quantitative and qualitative factors.
It is crucial to make sure that both quantitative and qualitative metrics are balanced, in line with the learning objectives, and offer insightful information about the progress of the students. To facilitate the review process and guarantee consistency and impartiality, precise evaluation criteria and rubrics should be created (Marks et al., 2021).

9. Addressing Challenges and Limitations

Ensuring the validity and reliability of qualitative assessments is a challenge when using them. Case studies and reflection exercises are two examples of qualitative evaluation methods that are prone to subjectivity and interpretation bias. Teachers can overcome this difficulty by creating explicit grading criteria and rubrics that offer precise instructions for evaluating qualitative data. The consistency and dependability of qualitative assessments can also be improved by providing evaluators with training and calibration sessions. Furthermore, ensuring objectivity and validity in the evaluation process can be facilitated by employing numerous evaluators and doing inter-rater reliability tests (Permana, 2022).

In assessment, fairness and consistency are essential. Teachers need to make sure that criteria, rubrics, and assessment techniques are applied uniformly to all students, classes, and evaluators in order to overcome this difficulty. Frequent moderation meetings and calibration sessions can support the upkeep of uniformity in feedback and scoring. It is imperative to effectively convey to students the expectations and criteria of assessments in order to provide a transparent and equitable evaluation process. Teachers can lessen the possibility of biases and advance equitable evaluation procedures by guaranteeing consistency and fairness (Gazzaz, 2021).

For an assessment to be successful, stakeholders including students, teachers, business experts, and legislators must be involved in both the design and execution phases. Teachers might include interested parties in focus groups, questionnaires, or consultations to get their opinions on the evaluation criteria, procedures, and framework as a whole. By working together, we can improve the assessment process's relevance and alignment with industry requirements and stakeholder expectations. Furthermore, allowing students to participate in peer and self-evaluation activities develops a sense of involvement and responsibility as well as gives them the ability to take charge of their education (Cruz, 2019).

10. Implications for Agricultural Science Curriculum Design

By aligning assessment methods with the desired learning outcomes, teachers can ensure that the assessment process reflects the knowledge, skills, and competences that students are expected to acquire. Because of this alignment, developing a curriculum that is both rational and purposeful is made easier, and assessment tasks give students a way to demonstrate that they have mastered certain learning objectives. It also supports teachers in monitoring the growth of their pupils and in making data-driven decisions on curriculum development and instructional adjustments.
The comprehensive assessment framework promotes motivated and active student participation through a variety of evaluation procedures. Case studies, reflection activities, and project-based evaluations are used to encourage students to apply what they've learned, think critically, and solve real-world issues. When students actively participate in the assessment process, they are more enthusiastic and interested in what they are studying because they can clearly see how their agricultural science knowledge is directly applicable and practical.

Critical thinking and problem-solving abilities are promoted by the evaluation techniques incorporated within the framework, such as case studies and observation/reflection exercises. With the help of these techniques, students must assess and analyse intricate agricultural settings, pinpoint important problems, and suggest workable fixes. Students that participate in these kinds of evaluations improve their capacity for critical thought, data analysis, and decision-making. This helps students grasp agricultural science ideas more deeply and gives them the tools they need to deal with problems in the field on a day-to-day basis.

The design of agricultural science curricula ought to prioritise the significance of sustainable and ethical

practices. By including sustainability standards and ethical issues into evaluation procedures, the comprehensive assessment framework can help with this. Assessing students' capacity to examine moral conundrums, suggest viable answers, and assess how agricultural practices affect society and the environment can be done. This assessment method equips students to participate to sustainable agricultural development by encouraging ethical decision-making and instilling a sense of responsibility.

Through the use of self-evaluation and reflection exercises, the complete assessment framework promotes professional development and lifelong learning. Students are prompted by these techniques to assess their own performance, pinpoint areas in need of development, and establish learning objectives. Students who participate in reflective activities acquire metacognitive abilities and self-directed learning habits, both of which are critical for ongoing personal and professional development. This evaluation method encourages a lifelong learning perspective in students, enabling them to adjust to changing agricultural practices and make career-long contributions to the field's growth.

11. Conclusion

11.1 Key Takeaways

There are holes and restrictions in the traditional assessment measures used in agricultural science education, which must be filled.
Alternative strategies have advantages and the ability to produce an assessment that is more comprehensive, such as qualitative assessment techniques.

In agricultural science curricula, contextual considerations are important in the design and execution of assessments.
The Comprehensive Assessment Framework offers a prospective framework for reconsidering assessment in the context of agricultural science curriculum design by combining qualitative approaches, quantitative metrics, and contextual considerations.

In agricultural science curriculum design, reevaluating assessment can result in better learning outcomes, increased student engagement, ethical behaviour, critical thinking, and lifelong learning as well as professional growth.

11.2 Future Research

- Examine how well the Comprehensive Assessment Framework works with the creation of agricultural science curricula.
- Analyse the relationship between teaching strategies and learning objectives for students studying agricultural science.
- Examine how the comprehensive assessment framework affects students' career development and success in the workplace over the long run.
- Further refine and expand guidelines and resources for educators to support the implementation of the comprehensive assessment framework.
- Work together with stakeholders and industry experts to improve and validate the all-encompassing evaluation framework.

12. Recommendations

- Teachers should incorporate qualitative assessment techniques into the design of their agricultural science curricula, such as case studies, portfolios, project-based evaluations, and observation and reflection exercises.
- By combining mixed methods approaches and triangulating assessment data, the assessment process can strike a balance between quantitative and qualitative indicators.
- By creating precise assessment criteria, offering evaluators training, and incorporating stakeholders in the planning and execution of the assessment, you may overcome obstacles and constraints.
- Provide pedagogical guidelines and instructional materials for teachers to facilitate the integration of the comprehensive assessment system into agricultural science curricula.
- Promote more investigation and cooperation to examine the relationship between student learning outcomes and assessment techniques as well as the long-term consequences of the comprehensive assessment framework on students' professional growth.

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Perception of Foster Care As An Alternative To Institutionalization of Orphans And Vulnerable Children (OVC) By Residents of Oredo Local Government Area, Edo State of Nigeria

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Abstract. This study focused on the perception of foster care, as an alternative to orphanages and institutionalization of orphans and vulnerable children (OVC) by residents of Oredo Local Government Area, Edo State. The objectives of the study were to examine the causal factors of the phenomenon of OVC in Oredo Local Government Area of Edo State; interrogate the perception of OVC by residents of the study area; explore the determinants of the perceptions of OVC by the residents of Oredo Local Government area; examine the knowledge and perceptions of foster care as an alternative to orphanage and other forms of institutionalization of OVC in the study area. The study adopted mixed methods (quantitative- survey and qualitative – interview). The population was 30,368 and the sample size was 1250. The simple percentage was used to determine the various level of respondents. The study established that out of 1250 research participants in foster care system within the study area, 22.3% agreed foster care exits as against 77.7% of the respondents who disagreed with the term. On welfare regarding homeless children, the analysis shows that 103 respondents representing 8.2% believe that they have been approached by social workers as juxtaposed by 1147 respondents representing 91.8% who believe that they have never been approached by social workers. The study recommended that Community members should aim to raise awareness of the various problems faced by orphans and the vulnerable children in the society.

Keywords: Perception, Foster Care, Institutionalization, Orphans, Vulnerable Children (OVC)

1. Introduction

On daily basis all societies of the world some children were being removed from their folks sometimes for a period of time, but often this may persist enduringly. A lot of circumstances responsible for these ugly incidences amongst other factors like abuse, neglect, death of parents, poverty, harsh economic situation of their situation, HIV/AIDS or other health problems, emotional or behavioural, difficulties and migration amongst others (UNICEF, 2015). On account of the ugly separation of children from their parents, there are more than 183 million children living as orphans and vulnerable (OVC) worldwide and significant numbers of these million children are in institutional care which are all over in Sub-Saharan African countries Nigeria inclusive. The number of children in these homes or outright homelessness' are outrageous in Sub-Saharan Africa because of the wide spread of poverty, bad economy and perennial ethno-religious crises, insurgency and other communal conflicts and disasters (Federal Ministry of Women Affairs and Social Development, FMWASD, 2009; Community-Based Support For Orphans and Vulnerable Children, 2009).

Nigeria is noted for having highest number of Orphans and vulnerable children (OVC) in the world (FMWASD), Moreover, about a quarter (17.5 million) of Nigerian children are either orphaned or vulnerable on account of unmet needs of basic necessities of life like food, shelter, education emotional attachment, protection or care (Haba, 2006; UNICEF, 2006). While homeless or institutional centres children passed through soaring rates of short and prolong health problems. This unabated burden and trauma of homelessness poses serious danger on their psychic,

personality evolution, self- esteem including their desires to learn and become a successful adult member of their community (Elliot and Ruiz, 2014); Eliot, 2014; Bassul et al 2013).

Williamson and Greenberg (2010) posited that the causal factors like AIDS together with alternative diseases, armed conflicts, unaffordable situations beyond one's control, forced rearrangement on account of insurgency and extreme poverty are accountable for millions of children being orphaned, removed or on the verge of fairly break-down. The United Nations Convention on the Rights of the child emphases why family is important in the life of a child and emphasizes the active responsibility of governments to protect children from wandering about and vicissitudes of the modern society and encourage family caring and reunifications so as to contribute the right substitute focus for children whom their parents are no longer responsible for (UNICEF, 2015). In spite of the fact that it is endorsed in Nigeria for the extended family and members that belong to the community to care for OVC, the capacity, direness and resources of these persons/families have been over extended and stretched to the limit by the increasing number of vulnerable children and the complexity of their needs. But the perception of OVC by Nigerians may be accountable for the aversion towards taking in an orphan into the family thereby reducing the opportunities of minimising the number of OVC in Nigeria.

In the last few years, scholars, researchers, Social Workers and other professionals in the legal, medical and social sciences have been involved in serious critical and sustained discuss on the advantages and disadvantages of the classification of children and adolescents in the acceptance of the problems of the families, the deficits of the child, monetary and psychological problems or outright absence or loss of both parents.

Orphan and Vulnerable is conceptualized as a child that has lost both parents. Globally, 153 million children lost their mother or father or both or have been abandoned by their parents, (USA Fifth Annual Reports to Congress, 2010). Some variables responsible for resulting in parents being separated from their children are debt, hardship, inconvenience with regards to getting essential amenities, exploitation, disdain, deficit, conflict, illnesses as well as natural calamities (Pinero, 2006). UNICEF documented that no less than 2.2 million children worldwide live in orphanage homes and this population is thought to be significantly underestimated. High numbers of the children do not get adequate care and best practice care for the children (Faith Action Initiative, 2014). Current researches in Sub-Saharan Africa show a fast-increasing number in the organizations funded by private persons. Information on orphans and vulnerable children in Nigeria shown that they live in deplorable, and appalling conditions and subjected to exploitation, degradation, abuses and dehumanizing conditions which responsible for their social, psychological and physical problems. Other impacts include acute mal-nutrition, Not having access to health care, lack of access to education, child labour, child trafficking and homelessness amongst others (Orphans and Vulnerable children (OVC) fact sheet, 2007: UNICEF, 2006).

The problems faced by the OVC and reducing the antagonistic results of these vulnerable groups is of topmost significant for the government officials both at the national and global level across the world who acknowledge the OVC problem as a matter that comprises of social, economic and fundamental rights dimension (Nyangara, Thurman, Hutchison and Obiero, 2009). According to the United Nations Convention on the Rights of the Child (1990), there are many fundamental rights every child should have access to. These children have a right to protection and care in a compact family, and the government has an obligation to provide their needs. Some consequences of having these children being catered for in institutions are less than adequate healthcare, not adequately developed physically are more prone to suffer from poor health, physical underdevelopment and mental degeneration, delay in development, brain disorders hence such children show evidence of diminished intelligence, emotional and social dispositions in comparison with children who grew up in an ideal family setting. In the long term, institutionalized children grow up to have mental health disorders, socially isolated and economically unproductive (Brown, 2009; McCall, 2013).

The problem that is common with Nigeria is that not many believe that OVC deserve a better life and the government is expected as a matter of urgency to resolve these problems via policy formulation to dis-institutionalise children in orphanages and centres so that such children via foster care can be raised under the guidance of a stable family in Nigeria society. A lot of studies have been carried out on orphanages and care centers but not much have been written on foster care as alternative care for OVC specifically in Edo State. This study therefore examined the perception of foster care as alternative to orphanages and other forms of institutionalization of OVC in Oredo Local Government Area of Edo State, Nigeria.

1.1 Objectives of the Study

- To examine the causal factors of the phenomenon of OVC in Oredo Local government Area of Edo State
- To interrogate the perception of OVC by residents of the study area
- To explore the determinants of the perceptions of OVC by the residents of Oredo Local Government Area
- To examine the perceptions of foster care as alternative to orphanage and other forms of institutionalization of OVC in the study area.

1.2 Research Questions

- What are the causal factors of the phenomenon of Orphans and vulnerable children in Oredo Local Government area of Edo State?
- How are the OVC perceived by the residents of study area.
- What are the determinants of the perceptions of OVC by the residents of study area?
- What is the perception of foster care as alternative to orphanages and institutionalization of OVC in Oredo Local Government Area, Edo State?

1.3 Research Methodology

The study adopted a descriptive research design. Population of this study was the entire adult residents in the selected wards of Oredo Local Government Area of Edo State. Oredo Local Government is made up of 12 wards. The sample size of this study was derived using the Taro Yamani formula, the sample size from the total population of the study area is 30368 while the sample size = 1250 calculated from the formula. The selected wards from the total wards of the Oredo local government Areas were Ogbe, Ogba, Ogida, Etete and New Benin wards. In addition to the 50 participants from each selected 5 streets, totaling 250, from each ward and the grand total of 1250 participants. The research instruments (questionnaire and interview guide) were authenticated by my supervisor for validity and reliability. The qualitative and quantitative approaches were utilized in the data collection for this study. The structured questionnaire and the interview guide that administered to selected participants as earlier stated. The quantitate data collected with the use of the questionnaire while the qualitative data were collected with the use of in-depth interview guide. This study utilized two (2) research instruments namely, the structured questionnaire and the semi structures interview guide. The responses from the questionnaire administered were analyzed using descriptive statistics. The descriptive method describes the demographic traits, of respondents using frequency and percentage. The in-depth interviews were first screened, transcribed and thereafter analyzed using the thematic content analysis.

2. Results

Table 1: Socio-Demographic Characteristics of the Respondents

Age	18-25	159	12.7
	26-33	271	21.7
	34-41	256	20.5
	42-49	198	15.8
	50-57	121	9.7
	58-65	118	9.4
	66 and above	127	10.2
	Total	1250	100
Occupational Status	Formal employment	419	33.5
	Self employed	595	47.6
	Unemployed	236	18.9
	Total	1250	100
Marital status	Single	296	23.7
	Married	429	34.3
	Separated	116	9.3
	Widowed	93	7.4
	Divorced	121	9.7
	Never married	79	6.3
	Total	1250	100

Ethnic Group	Igbo	289	23.1
	Yoruba	126	10.1
	Hausa	87	7.0
	Benin	474	37.9
	Others	274	21.9
	Total	1250	100
Sex	Male	457	36.6
	Female	793	63.4
	Total	1250	100
Educational qualifications	WAEC/NECO	479	38.3
	OND/NCE	237	19.0
	HND/BSc	269	21.5
	MSc/PhD	172	13.8
	Others	93	7.4
	Total	1250	100
Religious Affiliations	Christianity	874	69.9
	Islam	221	17.7
	ATR	104	8.3
	Others	51	4.1
	Total	1250	100
Sampled population of selected wards in Oredo	Ogbe	346	27.7
	Ogba	173	13.8
	Ogida	254	20.3
	Etete	156	12.5
	New Benin	321	25.7
TOTAL		1250	100

Source: *Field Work, 2022*

The table revealed that the those that are below 18-25 years of age are 12.7, 26-33 years are 21.7%, 34-41 years are 20.5%, 42-49 years are 15.8%, 50-57 years are 9.7%, 58-65 years are 9.4%. In addition, those who are 66 and above are 10.2%. The above table therefore shows that majority of the research respondents are 34-41 years of age. The occupational status shows that 33.5% of the respondents' states that they are formally employed, 47.6% of the research respondents' states that they were self-employed while 18.9% were unemployed. The marital status revealed that 23.7% of the respondents were single, 34.3% of the respondents were married, 9.3% of the respondents were separated, 7.4% of the respondents were widowed, 9.7% of the respondents were divorced, 6.3% of the respondents were never married. The ethnic group above shows that, 23.1% are Igbo, 10.1% are Yoruba, 7.0% are Hausa, 37.9% are Benin, and 21.9% of the respondents belong to others ethnic groups. The gender above revealed that 36.6% respondents are male, while 63.4% of the respondents are females. Thus, female constituted larger respondents in the study. The educational qualification shows that 38.3% of the respondents had WAEC/NECO, 19.0 % of the respondents had OND/NCE, 21.5% had HND/BSc, 13.8% of the respondents had MSc/PhD and while 7.4% were either without formal education or fell into other categories. The Religion affiliation revealed that out of 1250 respondents, 69.9% stated that they are Christians, 17.7% stated that they are Muslims, 8.3% stated that they practice African traditional religion, while 4.1% stated that they belong to other forms of religious worship. The sample size of the study based on retrieving of the interview schedule shows that 27.7% of the respondents were from Ogbe, 13.8% were from Ogba, 20.3% were from Ogida, 12.5% were from Etete, and 25.7% were from New Benin. This therefore shows that New Benin.

Research Question One: What are the causal factors of Orphans and vulnerable children in Oredo Local Government, Edo State?

Table 2: To examine the causal factors of the phenomenon of OVC in Oredo Local government Area of Edo State

What are the causal factors of Orphans and vulnerable children in Oredo Local Government, Edo State?	Poverty	316	25.3
	Socio-cultural constraints	127	10.2
	Inadequate policies	198	15.8
	High maternal mortality	239	19.1

	Armed conflicts and communal clashes, leading to family dislocation	162	13.0
	Instability in income	208	16.6
Total		**1250**	**100**

Source: *Field Work, 2022*

The table above shows the causal factors that are responsible for orphans and vulnerable children in Oredo local government, Edo State. Out of the 1250 respondents, 136 representing 25.3% stated that poverty is the major causal factor that was responsible for orphans and vulnerable children in Oredo local government, Edo State. 127 respondents representing 10.2% stated that socio-cultural constraint that was responsible for orphans and vulnerable children in Oredo local government, Edo State. Meanwhile, 198 respondents representing 15.8% stated that inadequate policies were the causal factor that was responsible for orphans and vulnerable children in Oredo local government, Edo State. In addition, 239 respondents representing 19.1% stated that high maternal mortality was the causal factor that was responsible for orphans and vulnerable children in Oredo local government, Edo State. 162 respondents representing 13% stated that armed conflicts and communal clashes that result in family dislocation was the causal factor that was responsible for orphans and vulnerable children in Oredo local government, Edo State and 208 respondents representing 16.6% stated that income instability of parents/guardians was the causal factor that is responsible for orphans and vulnerable children in Oredo local government, Edo State. From the foregoing, it can be observed that there were various causal factors that were responsible for orphans and children in Oredo local government, Edo state. The result above corroborates with the study of Ngwu, (2009) who posited that poverty, socio-cultural constraints, inadequate policies, high maternal mortality armed conflicts and communal clashes, leading to family dislocation and instability in income were some of the causal factors of orphans and vulnerable children vulnerability in the society.

Research Question Two: How are the OVC perceived by the residents of study area?

Table 3: To interrogate the perception of OVC by residents of the study area

S/N	Variables	Responses	Numbers	Percentages
	As an adult will you agree to foster an orphan	Yes	521	41.7
		No	729	58.3
		Total	1250	100
	Do you support the idea that foster care is better than orphanages?	Yes	589	47.1
		No	661	52.9
		Total	1250	100
	Have you ever assisted any orphan or street children in the past?	Yes	1148	91.8
		No	102	8.2
		Total	1250	100
	What kind of help did you rendered to them?	Food	379	30.3
		Clothing	409	32.7
		Shelter	82	6.6
		Others	278	22.2
		None	102	8.2
	Total		**1250**	**100**

Source: *Field Work, 2022*

The table above shows the perception of OVC by residents of the study area. Three research statements were used to elicit response from respondents. The result of the first statement shows that 41.7% stated that as adults they agreed to foster an orphan as against 58.3% who stated that as adults, they will not agree to foster an orphan. Second, another statement was raised to find out if the respondents support the idea that foster care is better than orphanages. The result shows that 41.7% responded positively to the statement as against 52.9% who disagreed that foster care is not better than orphanages. More so, respondents were also asked if they have ever assisted any orphan or street children in the past. Surprisingly, 91.8% stated that they have assisted orphans or street children in the past as against 8.2% who stated that they have never assisted any orphan or street children in the past. Lastly, respondents were asked the kind of help they have rendered to orphans or street children in the past. Out of the 1250 respondents, 30.3% stated that they have assisted by giving orphans or street children food, 32.7% of the respondents stated that they have provided clothing for orphans or street children, 6.6% stated that they have provided shelter for orphans or street children, 22.2% of the respondents stated that they have provided other forms of assistance to orphans or street children in the

past while 8.2% of the respondents stated that they have not provided any form of assistance to orphans or street children in the past. It can therefore be deduced from the result of the analysis in table 4.3 above that there is a positive perception and acceptance of orphans by residence of Oredo Local Government, Edo State.

Research Question Three: What are the determinants of the perceptions of OVC by the residents of study area?

Table 3: To explore the determinants of the perceptions of OVC by the residents of Oredo Local Government Area

	Do you agree that being in orphanage or care center like Remand Home is the best option for the child?	Yes	971	77.7
		No	452	36.2
		Total	1250	100
	As an adult, do you think or agree that children in orphanages grow up to have psychological problems?	Yes	971	77.7
		No	279	22.3
		Total	1250	100
	Do you perceive the process of adoption for foster care in Edo State to be a difficult task or process?	Yes	734	58.7
		No	516	41.3
	Total		**1250**	**100**

Source: *Field Work, 2022*

The table above shows the analysis on the determinant of the perceptions of orphans and vulnerable children by the residents of Oredo local government area, Edo State. Respondents were asked if they agreed that being in the orphanage or care centre like Remand Home is the best option for a child. Out of the 1250 respondents, 36.2% gave a positive response and against the 63.8% of the respondents who gave a negative response to the aforementioned statement. The participants were also asked if children in orphanages grow up to have psychological problems. The result from table 4.4 above shows that 77.7% affirmed that children in orphanages grow up to have psychological problems while 22.3% stated that psychological problems does not manifest in children who grow up in orphanage homes. Responses were also sought to find out if the process of adoption for foster care in Edo State is a difficult task or process. The result from the table shows that 734 respondents representing 58.7% were of the opinion that the adoption process for foster care in Edo State is a difficult task. Meanwhile, 516 respondents representing 41.3% were of the opinion that the adoption process for foster care in Edo State is not a difficult task because they believe that the process is smooth as documents for adoption of a child can easily be processed as far as the foster parent goes through the proper channel.

Research Question Four: What are the perceptions and knowledge of foster care as alternative to orphanages and institutionalization of orphanage and vulnerable children in Oredo Local Government Area, Edo State?

Table 4: To examine the knowledge and perceptions of foster care as alternative to orphanage and other forms of institutionalization of orphanage and vulnerable children in the study area

S/N	Variables	Responses	Numbers	Percentages
	Do you know anything or programme about the foster care system in your area or in Edo State?	Yes	106	8.5
		No	1144	91.5
		Total	1250	100
	Do you know anything about orphans and vulnerable children home in our Society?	Yes	279	22.3
		No	971	77.7
		Total	1250	100
		Yes	103	8.2

Have you ever been approached by welfare/social worker to take in homeless child or an orphan?	No	1147	91.8
Total		1250	100

Source: *Field Work, 2022*

The above table also shows the knowledge and perceptions of foster care as alternative to orphanage and other forms of institutionalization of orphanage and vulnerable children in the study area. Four research questions were formulated in other to elicit response from respondents. First the respondents were asked if they know anything or programme about the foster care system within their environment in Edo State. The result of the analysis shows that 8.5% of the respondents agreed as against 91.5% of the respondents who stated they do not know anything or programme about foster care system within their community. Second, the analysis on the statement to know if the respondents have any knowledge about orphans and vulnerable children home located within their neighborhood. Out of the 1250 research participants, 22.3% agreed as against 777.7% of the respondents who disagreed. Lastly, the participants were also asked if they have ever been approached by welfare/social worker to take in homeless child or an orphan. The analysis above shows that 103 respondents representing 8.2% were of the opinion that they have been approached by welfare/social worker to take in homeless child or an orphan as juxtaposed by 1147 respondents representing 91.8% who were of the opinion that they have never been approached by welfare/social workers to take care of a homeless child or an orphan. The analysis above therefore shows that there is low perception on foster care as alternative to orphanage and other forms of institutionalization of orphanage and vulnerable children in the study area.

3. Discussion of Findings

The result of the study shows that poverty as well as high maternal mortality rate were the chief causal factors of orphans and vulnerable children in Oredo Local Government, Edo State. This result was in tandem with the study carried out by (Federal Ministry of Women Affairs and Social development, 2006) which posits that root causes for the plight of orphans and vulnerable children include: poverty, socio-cultural constraints, gender inequities, inadequate policies and enabling environment. Immediate causes of orphaning and vulnerability of children in Nigeria include among other things poverty, accidental death, high maternal mortality during child birth, communal conflicts resulting in death of parents in the community.

The study also reveals that there is poor perception in terms of care for orphans and vulnerable children among the residents in the study area as majority of the respondents were receptive to care for the vulnerable children. The study further established that orphanage or care centres are not the best option for a child as there are some problems with parental support which may be seen in the life of a child that is raised in a remand home. The result is in agreement with the report of Horizons (2003), which posits that children nurtured in orphanage and remand homes suffer from social, emotional, physical and spiritual well-being and development. The result also shows that there is poor perception and awareness by residence within the study area on programmes that were put in place to cater for the orphans and vulnerable children. This is corroborated by Olagbuji and Okojie (2015) which posits that the policy for orphans and vulnerable children in Benin City have not been given any form of implementation hence there is very poor perception on orphan and vulnerable children.

4. Conclusion

It is apparent from the discussions in this report that the situation of orphans and vulnerable children is worrisome and the community is concerned about this. Furthermore, the community are convinced that large numbers of children have been affected. This is a serious situation in that it indicates an increasing number of orphans' vulnerability. The study looked at the causal factors of orphan's vulnerability, the problems associated with orphan vulnerability, the perceptions of participants on the issue of orphans and vulnerable children wellbeing within the study area amongst others. The study concludes that community-based homes provide a comparatively safe haven for some OVC compared to previous living arrangements. School psychologists working with OVC should be knowledgeable about factors involved in their enrolling for community-based home living as these would be relevant to the design and implementation of learner support services with them.

5. Recommendations

The following recommendations are therefore made:

- The government and community members should aim to raise awareness of the various problems face by orphans and the vulnerable children in the society.
- Uphold child rights by prohibiting exploitative and harmful labor of orphans and vulnerable children through the community child protection committees.
- Establish that programmes for orphans and vulnerable children integrated into existing services for example, social welfare, agricultural extension and community health services.
- Government should implement supports and also relax some stringent laws and processes in terms of adoption process by individuals who are willing to cater for orphans and vulnerable children within the community as this could provide pathways by which the children could be provided with needed support for resilient health and wellness.

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Knowledge, Perception and Attitude of Married Men towards Radio Health Messages on Family Planning

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Abstract. Radio has played a significant role in the spread of health information and continues to do so. Examples of the many campaigns that have benefited from radio include those against HIV and AIDS, immunisation campaigns, oral rehydration therapy, the fight against malaria, the Kick Polio Out campaign, the Wash Your Hand campaign during the August 2014 Ebola outbreak, the Family Planning Adoption Campaign as well as the campaign against the recent Covid-19 Pandemic. Hence, this study aims at finding out the knowledge, perception and attitude of married male employees in South-West, Nigeria, about family planning based on their exposure to Radio Health Messages on family planning. With three objectives and three research hypotheses, this study was anchored on Theory of Planned Behaviour (TPB). This study employed the cross-sectional survey research design with questionnaire as the instrument of data collection. Using Multi-stage sampling technique and Cochran formula of sample size calculation, six hundred and thirty-four (634) respondents were selected as the sample size across nine local government areas chosen in the south-western part of Nigeria. Findings shows that married men's perceptions and knowledge of family planning were significantly influenced by Family Planning Radio Health Messages, but not their attitudes towards the practice. Also, it was revealed that respondents were aware of family planning and its purposes, as well as some of the methods and how to apply them but they disagreed that family planning (FP) is beneficial for women who are still having children and that FP radio health messages are frequently directed towards men. As recommendation, Family Planning Radio Health Messages focus more on teaching the target audience on the various family planning methods available and ensure that Family Planning Radio Health Messages take a very descriptive approach, painting a mental picture and semblance of reality for simple understanding due to the visual disadvantage of radio. Also, Family Planning Radio Health Messages should be refocused to target men not just women alone since men have the headship position to make some decisions in many families in the south-western part of Nigeria.

Keywords: Family Planning, Knowledge, Perception, Attitude, Married Men, South-West.

1. Introduction

One of the most dependable and traditional forms of media for exchanging information is radio. Radio has, over the time, been used as a medium for national development and spreading sensitisation messages by a variety of persons, community groups, organisations, and nations (Ajisafe, 2021). Radio has been used as a medium for this kind of communication as well as for information transfer to create social change, to transfer knowledge, and to exchange ideas because it can bridge language, regional, and literacy gaps while still being an inexpensive source of information that appeals to a wide range of listeners. Radio's sustainability has been made possible by its features, despite the rapid advancements in information technology, including the Internet and sophisticated two-way communication (Odero & Kamweru, 2010).

Radio has played a significant role in the spread of health information and continues to do so. Examples of the many campaigns that have benefited from radio include those against HIV and AIDS, which have included both jingle and radio dramas, immunisation campaigns, oral rehydration therapy, the fight against malaria, the Kick Polio Out campaign, the Wash Your Hand campaign during the August 2014 Ebola outbreak, the Family Planning Adoption Campaign as well as the campaign against the recent Covid-19

Pandemic. Because radio sets, televisions, and print media are becoming more widely available in developing nations and have the power to change people's behaviour, both governments and non-governmental organisations are using radio to spread information and provide education about health communication, which family planning is notable among the health discourses (Kincaid, 1992, Bankowski and Bryant (2015).

Family planning, according to the World Health Organisation (WHO, 2019), is a technique that enables people and couples to plan ahead and have the number of children, as well as the spacing and timing of their births, that they prefer. Iqbal (2013) points out that family planning does not imply the absence of children; rather, it is concerned only with a low rate of reproduction and nothing unnatural or inhumane. However, the United Nations Population Funds Activities (UNFPA, 2017) recognises family planning as a fundamental human right that allows individuals and couples to decide the number and spacing of their children. Family planning can be carried out essentially in two ways: whether using the traditional ways or through modern methods. The focus of either method is to control population.

Essentially, the population factor is just one of many variables that can either promote or impede development; therefore, controlling the population to prevent overcrowding is essential since it holds the promise of providing an answer to every socioeconomic issue facing the Nigerian nation. This position and point of view is further supported by facts, statistics, and graphical aids provided by international organisations such as the UNFPA and WHO. Nigeria's population is growing at an alarming rate in spite of efforts made by the government, non-governmental organisations, and the media. Victor (2018) lists a number of indicators of Nigeria's overpopulation to include; poor per capita income, environmental degradation, lack of medical facilities, inadequate tertiary institutions to accommodate the country's swarming youth, and unemployment. One of the viable measures identified by WHO (2019) to curtail overpopulation was the adoption of family planning. Presently, Nigeria's population is a little bit above two hundred and twenty-seven thousand (227, 250,656) (Worldometer, 2024) while it has been predicted to reach twice this figure by the year 2050, thus, rounding up the population of Nigeria to over four hundred million and making her the third most populous nation on earth (FMoH, 2019).

Hence, this study was therefore motivated by Nigeria's alarming population rise and the scary prediction. Also, the study was motivated by The Federal Ministry of Health's urgent plea, following the Green Dot Initiative's introduction, that the media assist in refocusing attention from family planning messaging aimed at women solely to males as well. As contained in the federal government Green Dot Initiative, the media are urged to help dispel men's myths about family planning and work to ensure that they are adequately informed about it. To this end, the study aims at finding out the knowledge, perception and attitude of married male employees in South-West, Nigeria, about Family Planning Radio Health Messages.

1.1 Research Objectives

The general objective of this study was to assess the knowledge, perception and attitude of married male employees in selected local government areas in South western part of Nigeria on Family Planning while the following are the specific objectives:

- To explore the knowledge of married male employees in the south-western part of Nigeria about family planning;
- To find out the perception of married male employees in the south-western part of Nigeria about family planning?
- To determine the attitude of married male employees in the south-western part of Nigeria towards family planning.

1.2 Research Questions

- What is the knowledge of married male employees in the south-western part of Nigeria about family planning?
- What is the perception of married male employees in the south-western part of Nigeria about family planning?
- What is the attitude of married male employees in the south-western part of Nigeria towards family planning?

1.3 Research Hypothesis

The following hypotheses were formulated for this study:

$H_0$1: Family planning radio health messages have no significant influence on knowledge of family planning among married male employees in the South-western part of Nigeria.
$H_0$2: Family planning radio health messages have no significant influence on perception of family planning

among married male employees in the South-western part of Nigeria.
$H_0$3: Family planning radio health messages have no significant influence on the attitude towards family planning among married male employees in the South-western part of Nigeria.

2. Literature and Theoretical Reviews

2.1 Radio Health Messages

The phrase "health communication" is wide and can signify different things to different individuals. From several angles, academics have defined and described health communication. This is due to the fact that, similar to other ideas, health communication is defined by views rather than a single definition. According to Sixsmith (2017), health communication is the study and application of communication techniques to support and sway decisions that improve health on an individual and societal level. It is essential to the total accomplishment of the goals and objectives of public health which includes illness prevention, treatment, and promotion of health. Nonetheless, according to Kreps (2014), health communication studies how human and mediated communication affects the provision of healthcare and the advancement of health. According to him, it is problem-based, identifies significant communication problems that hinder the provision of high-quality healthcare and its promotion, and offers precise solutions, strategies, and programmes for health communication that will raise the standard of healthcare practices. There are several communication levels where health communication takes place. It can be mass communication through radio (which is the main focus), intrapersonal, or interpersonal. As a result, the study of communication tactics aimed at educating and influencing personal and societal choices that promote health is known as health communication.

Health communication campaigns are developed as a result of a significant health concern while communication is the primary force that fuels health education and promotion focused on eliminating the health concern. Everett (2016) basically defines health communication as any type of human communication whose content is concerned with health. Ratzan (2014) defines it as, “the art and technique of informing, influencing and motivating individual, institutional, and public audiences, about important health issues.” Ratzan`s definition is adopted in this study for its precise description of health communication; calling it an art and a technique of not only informing but also influencing usual health behaviour. The goal of health communication is to influence people’s and communities’ attitudes towards matters concerning their health, the provision of healthcare, and policy. According to Airhihenbuwa (2012), health communication is a social marketing tactic used to influence people’s behaviour and increase the acceptance of a health campaign. A health communication campaign is a collection of well-timed health messages or other forms of advertising intended specifically to achieve predetermined goals and objectives.

Radio health messages consist of speech, music or other sounds. These sounds can be recorded or played live. Announcers’ statements are included in the live sounds, which are broadcast simultaneously with their production. When originally created, pre-recorded sounds are not broadcast. They are taped and then aired at a later time. According to Uyeh (2017), practically all of the music and most commercials/advertisements are prerecorded.

2.2 Knowledge of Family Planning

The ability to obtain, retain, and apply information is referred to as knowledge, according to Bankowski and Bryant (2015). It is a combination of comprehension, experience, judgement, and skill. Choosing to 255 tilizi a contraceptive method requires understanding family planning, family planning techniques, and associated difficulties. Higher awareness of family planning and family planning techniques is associated with a higher likelihood of 255 tilizing contraceptives (MacCorquodale, 2015). Husbands’ involvement in family planning decisions makes their understanding of family planning and its techniques a significant factor in determining the usage of contraceptives. Furthermore, it has been argued that understanding contraceptive methods is useless if one does not know where to get them (Gallen, 2014). The perceived availability of contraceptives is measured by the number of sources that are known to exist (Loesoef, 2016). According to research on women, those who knew where to find the methods were far more likely to use them than others who were unaware of them (Pebley & Brackett, 2014). In the context of this study, knowledge refers to the research subjects’ understanding of natural family planning, including their initial exposure to the concept and the range of natural family planning techniques.

2.3 Perception of Family Planning

Men and women can be influenced even more by their perception of community norms than by their personal preferences concerning their ideal number of children

and contraceptive use. The process of becoming aware of, comprehending, and interpreting something is known as perception. People's daily exposure to radio health programmes causes information processing to pass through several perceptual defensive mechanisms, including selective attention, selective perception, and selective retention. It enables individuals to "sort" the information according to their personal attitudes, values, and beliefs. If the person finds the radio health messages interesting, he or she will probably consider the information, retain it in memory, and follow through with family planning (Russell & Pratt, 2015). Another way to think about perception is as the method by which living things make sense of their surroundings by interpreting and organising sensations (Belch and Belch, 2014).

Many healthcare professionals invest a great deal of time and energy into making sure that current and prospective parents will see their health messages favourably. Since radio health messages will directly influence people's decision-making, it is crucial that they have positive opinions of them (Fennell, 2017). Perceptions can also be influenced by an individual's internal elements, including experiences, beliefs, moods, attitude, wants, and expectations.

2.4 Attitudes towards Family Planning

According to Bankowski and Bryant (2017), attitude describes propensities to view and interpret events based on predispositions, to react to situations in a particular way, or to arrange ideas into logical and cohesive structures. The attitudes of couples or research participants towards natural family planning techniques are referred to as attitudes. to ascertain whether or not they approve of it, like it, or encourage it. The attitude variable describes a general level of support or opposition to using family planning to reduce the size of a family or avoid unintended pregnancies. Attitudes are not innate; rather, they are acquired through socialisation, experiences, and cultural adoption. Men's attitudes towards family planning are impacted by education and experiences (Oberiri, 2017).

A person's location, age, education, religious beliefs, traditional beliefs, family structure, degree of knowledge, and economic and social factors are some of the elements that can affect their opinions towards family planning methods. It is established that these elements influence how attitudes become behaviours. Although attitude cannot be directly observed, its consequences on behaviour are well-established (Olawande & Fasasi, 2017). Attitude is a conceptual construct.

3. Theoretical Review

3.1 Theory of Planned Behavior

The theory of reasoned action (TRA), first presented by Fishbein and Ajzen (1975), is expanded upon by the theory of planned behaviour (TPB; Ajzen, 1985, 1991). According to the theory of planned behaviour, behaviour can be anticipated both directly from behavioural intention and perceived behavioural control, as well as indirectly through the mediating role of behavioural intention (Ajzen, 1991). According to Ajzen (1991), a person's intention to behave is influenced by their attitude towards the activity, their perception of behavioural control, and the subjective norm. Ajzen (1991) posits that an individual's intention to engage in a behaviour should be stronger when they have a positive attitude, perceive a subjective norm, and feel like they have control over the behaviour. In other words, when people feel like they should perform a behaviour, see it as something they should do, and believe they have control over it. Given sufficient actual control over a particular conduct, people are expected to carry out their intentions, which is why intention is seen as the immediate antecedent of behaviour. Nonetheless, in addition to intention, perceived behavioural control might be taken into consideration because many acts are not entirely within a person's volitional control. The ability of the theory of planned conduct to forecast behavioural intention, behaviour in general, and intention and behaviour connected to health in particular has been supported by several theoretical and meta-analytic reviews.

3.2 Relevance to the study

Family planning issues cause a lot of cognitive dissonance in people, particularly when combined with the scripture's implication that God is saying "multiply and spread my fortress on the earth." People's cognition (behavioural intention) needs to be improved in order to alter attitudes. Pre-existing beliefs, or conflicting cognition, must be persuaded to change by carefully crafted messages or campaigns 256mphasizing the advantages of family planning. In particular, we should take our cues from traditional and scriptural beliefs, which advise us to pursue a better, more comfortable, and wholesome lifestyle for ourselves. By doing this, people will have positive behavioural intentions, which will encourage the adoption of family planning. According to Ajzen (1991), people's intentions to engage in a behaviour are stronger when they have a positive attitude, perceive that a behaviour is important, and feel that they have control over it for themselves.

4. Research Methodology

This study employed the cross-sectional survey research design to examine the influence of family planning radio health messages on knowledge, perception and the attitude of married male employees in South-West, Nigeria. To select the population and final sample size for study, multi-stage sampling technique was used. First, balloting technique was used to select the states in the south-west to be included in the study. Two, each state selected from stage one was divided into their three senatorial districts from where one local government each were purposefully selected (the local government with the highest population in each district). In the last stage, purposive technique was used to select married male employees in the identified local government areas. This is because the local government council presents an organized setting to assess the population intended for this study. Hence, this study's population are 2,591 married male employees of nine local governments in South-West, Nigeria (see table 1 for the breakdown of local governments selected and the numbers of employees).

Table 1: Population of Married Male Employees in selected Local Governments

Selected States	Local Government Area	No of Married Male Employees
Osun State	Aiyedade LGA,	178
	Osogbo LGA	198
	Ife East LGA	255
Ondo State	Akoko South-West, LGA	411
	Akure South LGA	283
	Ilaje LGA	494
Ogun State	Abeokuta South LGA	239
	Ijebu North LGA	247
	Ado-Odo/Ota LGA	286
Total Population		**2,591**

Using Cochran Formula, the sample size of 634 respondents was used while the distribution based on each local government is as shown below in table 2:

Table 2: Study Population and Sample Size

Selected States	Local Government Area	No of Married Male Employees	%Proportion of population	Sample
Osun State	Aiyedade LGA,	178	6.9	44
	Osogbo LGA	198	7.6	48
	Ife East LGA	255	9.8	62
Ondo State	Akoko South-West, LGA	411	15.9	101
	Akure South LGA	283	10.9	69
	Ilaje LGA	494	19.1	121
Ogun State	Abeokuta South LGA	239	9.2	58
	Ijebu North LGA	247	9.5	60
	Ado-Odo/Ota LGA	286	11.0	71
Total Population		**2,591**	**100**	**634**

Questionnaire was used as the instrument of data collection while the data from the study was analysed using descriptive and inferential analysis.

5. Findings

RQ1: What is the knowledge of married male employees in the south-western part of Nigeria about family planning?

Table 3: Knowledge of Family Planning among Married Male Employees

Items	SA Freq. (%)	A Freq. (%)	PA Freq. (%)	PD Freq. (%)	D Freq. (%)	SD Freq. (%)	$\bar{x}$	SD
Fertility Awareness (abstinence, Safe periods) is a method of family planning	388 (65.1)	147 (24.7)	29 (4.9)	13 (2.2)	10 (1.7)	9 (1.5)	5.45	0.99
Barrier Method (female/male Condoms) is a method of family planning	327 (54.9)	158 (26.5)	41 (6.9)	32 (5.4)	20 (3.4)	18 (3.0)	5.15	1.26
Family planning guards against unplanned pregnancies	172 (28.9)	298 (50)	76 (12.8)	28 (4.7)	13 (2.2)	9 (1.5)	4.94	1.02
Family planning provides information on child spacing	191 (32)	253 (42.4)	99 (16.6)	30 (5.0)	12 (2.0)	11 (1.8)	4.92	1.08
Family planning is a process by which couples take proactive steps to consciously determine the number of children they want to have	139 (23.3)	276 (46.3)	108 (18.1)	45 (7.6)	18 (3.0)	10 (1.7)	4.74	1.09
Intra-Uterine Contraception (Implants, IUDs) is a method of family planning	144 (24.2)	151 (25.3)	127 (21.3)	80 (13.4)	66 (11.1)	28 (4.7)	4.24	1.47
There are different methods of family planning	60 (10.1)	181 (30.4)	159 (26.7)	111 (18.6)	52 (8.7)	33 (5.5)	3.98	1.32
I know various family planning centres that are obtainable	64 (10.7)	96 (16.1)	159 (26.7)	138 (23.2)	82 (13.8)	58 (9.6)	3.58	1.44
I know how to use different family planning methods	53 (8.9)	74 (12.4)	122 (20.5)	181 (30.4)	97 (16.3)	69 (11.6)	3.33	1.42
Hormonal Contraceptives (pills, injections) is a method of family planning	59 (9.9)	71 (11.9)	110 (18.5)	122 (20.5)	161 (27)	73 (12.2)	3.20	1.51
Emergency Contraception (Pills, Copper IUDs) is a method of family planning	39 (6.5)	54 (9.1)	101 (16.9)	137 (23)	152 (25.5)	113 (19)	2.91	1.46
Permanent Contraception (Sterilisation) is a method of family planning	17 (2.9)	23 (3.9)	51 (8.6)	174 (29.2)	205 (34.4)	126 (21.1)	2.48	1.19
Average Mean							**4.08**	**1.27**

Source: Field Survey, 2024

Source: *Field Survey, 2024*

KEY: SA=Strongly Agree, A=Agree, PA=Partially Agree, PD=Partially Disagree, D=Disagree, SD=Strongly Disagree, ***Decision Rule if mean is 1 to 1.49 =Strongly Disagree; 1.5 to 2.49 = Disagree; 2.5 to 3.49 =Partially Disagree; 3.5 to 4.49= Partially Agree; 4.5 to 5.49= Agree; 5.5 to 6 = Strongly Agree

Table 3 demonstrates that, on average, participants ($\bar{x}$ = 4.08) partially agreed that they knew something about family planning. Respondents specifically indicated that they understood the following aspects of family planning: barrier methods (male/female condoms) is a method of family planning ($\bar{x}$ = 5.15), fertility awareness (safe periods,

abstinence) is a method of family planning ($\bar{x}$ = 5.45), family planning prevents unwanted pregnancy ($\bar{x}$ = 4.94), family planning offers information on child spacing ($\bar{x}$ = 4.92), and family planning is a process by which couples take proactive steps to consciously determine the number of children they want to have ($\bar{x}$ = 4.74).

Additionally, the respondents only partially agreed with the following statements: that there are many techniques of family planning ($\bar{x}$ = 3.98), that they are aware of different family planning centres ($\bar{x}$ = 3.58), and that intrauterine contraception (IUDs, implants) is a method of family planning ($\bar{x}$ = 4.24). However, participants only partially agreed that they understood how to use various family planning methods ($\bar{x}$ = 3.33), that hormonal contraceptives (pills, injections) are a form of family planning ($\bar{x}$ = 3.20), and that emergency contraception (pills, copper IUDs) is a form of family planning ($\bar{x}$ = 2.91). Lastly, respondents ($\bar{x}$ = 2.48) disagreed that they knew about sterilisation as a means of family planning and permanent contraception.

As implied from these findings, married male employees generally knew only a little bit about family planning. They were especially informed about family planning in terms of fertility awareness (safe periods, abstinence), barrier methods (male/female condoms), protection against unintended pregnancies, information on child spacing, and the fact that family planning is a proactive process where couples choose how many children they wish to have. The survey also discovered that married male employees knew just a limited amount about various family planning clinics, different family planning methods, and long-acting reversible contraception (IUDs and implants). Furthermore, these married male employees only have a partial knowledge of the following information about family planning: how to use various methods of family planning; those hormonal contraceptives (injections, pills), as well as emergency contraception (copper IUDs, pills), are methods of family planning. Lastly, married male employees had no idea that sterilisation, a permanent form of contraception, was a family planning strategy.

RQ2: What is the perception of married male employees in the south-western part of Nigeria about family planning?

Table 4: Perception of Family Planning among Married Male Employees

Items	SA Freq. (%)	A Freq. (%)	PA Freq. (%)	PD Freq. (%)	D Freq. (%)	SD Freq. (%)	$\bar{x}$	SD
Family Planning methods have many side effects that are manageable	103 (17.3)	232 (38.9)	181 (30.4)	59 (9.9)	21 (3.5)	-	4.57	1.00
Adherence to family planning ideals is beneficial to the development of the nation at large	115 (19.3)	253 (42.4)	129 (21.6)	58 (9.7)	27 (4.5)	14 (2.3)	4.55	1.18
Family planning information are clearly communicated for easy understanding	95 (15.9)	271 (45.5)	110 (18.5)	69 (11.6)	33 (5.5)	18 (3.0)	4.46	1.22
Family planning issues are given appropriate attention by authorities	49 (8.2)	124 (20.8)	146 (24.5)	152 (25.5)	88 (14.8)	37 (6.2)	3.64	1.35
Family Planning is good for women still bearing children	12 (2.0)	34 (5.7)	78 (13.1)	168 (28.2)	205 (34.4)	99 (16.6)	2.63	1.19
Information about family planning are often focused on men	-	14 (2.3)	86 (14.4)	139 (23.3)	255 (42.8)	102 (17.1)	2.42	1.01
Family Planning is in line with my cultural belief	17 (2.9)	33 (5.5)	42 (7.0)	61 (10.2)	259 (43.5)	184 (30.9)	2.21	1.27
Family Planning is in line with my religious belief	13 (2.2)	25 (4.2)	31 (5.2)	56 (9.4)	294 (49.3)	177 (29.7)	2.11	1.15
Average Mean							**3.32**	**1.17**

Source: Field Survey, 2024

KEY: SA=Strongly Agree, A=Agree, PA=Partially Agree, PD=Partially Disagree, D=Disagree, SD=Strongly Disagree, ***Decision Rule if mean is 1 to 1.49 =Strongly Disagree; 1.5 to 2.49 = Disagree; 2.5 to 3.49 =Partially Disagree; 3.5 to 4.49= Partially Agree; 4.5 to 5.49= Agree; 5.5 to 6 = Strongly Agree

Table 4 showed that married male employees generally disagreed with the family planning perception scale to a significant extent ($\bar{x}$ = 3.32). Specifically, married male employees felt that family planning methods had many tolerable side effects ($\bar{x}$ = 4.57) and that adhering to family planning goals was good for the country's overall development ($\bar{x}$ = 4.55). The following statements, which the participants only partially agreed with, were made: family planning issues were given the proper attention by authorities ($\bar{x}$ = 3.64); and family planning material was delivered clearly for easy understanding ($\bar{x}$ = 4.46). Furthermore, the following statements were partially disagreed with by respondents: family planning is often focused on men (x = 2.42), family planning is beneficial for women

who are still having children (x = 2.63), family planning is in line with their cultural belief ($\bar{x}$ = 2.21) and that family planning is in line with their religious belief ($\bar{x}$ = 2.11).

According to this analysis, married male employees generally had a negative perception of family planning. Particularly married male employees had a positive perception of family planning in terms of its numerous tolerable side effects, its procedures, and how adhering to it would benefit the growth of the country as a whole. Participants' perceptions of family planning were somewhat positive since its benefits were explained in an understandable manner and because authorities were paying enough attention to its problems. Married male employees, however, did not view family planning favourably for the following reasons: family planning was perceived as bad for women who were still having children; men were not frequently the target of family planning information; family planning did not align with their cultural beliefs; and family planning was not in line with their religious beliefs.

RQ3: What is the attitude of married male employees in the south-western part of Nigeria towards family planning?

Table 5: Attitude towards Family Planning among Married Male Employees

Items	SA Freq. (%)	A Freq. (%)	PA Freq. (%)	PD Freq. (%)	D Freq. (%)	SD Freq. (%)	$\bar{x}$	SD
Family planning information has positively influenced me	30 (5.0)	84 (14.1)	198 (33.2)	165 (27.7)	73 (12.2)	46 (7.7)	3.49	1.24
I believe in Family Planning as being worthy of adoption	32 (5.4)	96 (16.1)	189 (31.7)	141 (23.7)	85 (14.3)	53 (8.9)	3.48	1.31
I encourage others to adopt family planning	48 (8.1)	66 (11.1)	183 (30.7)	174 (29.2)	71 (11.9)	54 (9.1)	3.47	1.32
Family planning information has changed my cultural perspective towards family planning	19 (3.2)	37 (6.2)	48 (8.1)	72 (12.1)	234 (39.3)	186 (31.2)	2.28	1.32
Family planning information has affected my religious perspective towards family planning	15 (2.5)	29 (4.9)	43 (7.2)	60 (10.1)	287 (48.2)	162 (27.2)	2.22	1.21
Average Mean							**2.99**	**1.28**

Source: Field Survey, 2024

KEY: SA=Strongly Agree, A=Agree, PA=Partially Agree, PD=Partially Disagree, D=Disagree, SD=Strongly Disagree, ***Decision Rule if mean is 1 to 1.49 =Strongly Disagree; 1.5 to 2.49 = Disagree; 2.5 to 3.49 =Partially Disagree; 3.5 to 4.49= Partially Agree; 4.5 to 5.49= Agree; 5.5 to 6 = Strongly Agree

According to Table 5 above, participants typically disagreed with the family planning attitudinal scale to some extent ($\bar{x}$ = 2.99). In particular, married male employees partially disagreed that family planning information had helped them ($\bar{x}$ = 3.49), that they thought family planning should be adopted ($\bar{x}$ = 3.48), and that they had partially discouraged others from adopting family planning ($\bar{x}$ = 3.47). Furthermore, married male employees did not agree that knowledge about family planning had altered their religious or cultural perspectives on family planning ($\bar{x}$ = 2.28) or that knowledge about family planning had influenced their attitude on family planning ($\bar{x}$ = 2.22).

This investigation revealed a partially negative attitude towards family planning among married male employees in a selected local government in South-West, Nigeria. They specifically had the following unfavourable attitudes regarding family planning: that family planning information had affected them, that family planning was something that should be adopted, and that they dissuaded other people from adopting family planning. Additionally, married male employees had a negative attitude towards family planning regarding the following: family planning information had no effect on their religious perspective regarding family planning, nor had it altered their cultural perspective regarding family planning.

Test of Hypothesis

Decision Rule

The level of significance pre-set for this study is 0.05. The hypotheses would be presumed to have no significant influence between the variables under consideration. Then, if the P-value which indicates the significance or the

probability value exceeds the pre-set level of significance ($p > 0.05$), the hypothesis stated in the null form would be accepted. However, if the P-value was less than or equal to 0.05 ($p \leq 0.05$), the null hypothesis would be rejected.

$H_0$1: Family planning radio health messages have no significant influence on knowledge of family planning among married male employees in the South-western part of Nigeria.

Table 6a: Model Summary of Test of Influence of Family Planning Radio Health Messages on Knowledge of Married male employees

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	2579.464	1	2579.464	114.854	0.000
	Residual	13340.434	594	22.459		
	Total	15919.898	595			

R= 0.403
R Square = 0.162
Adjusted R Square = 0.161

Source: *Field Survey, 2024*

Table 6a above indicates the model summary of hypothesis one.

Table 6b Showing the Influence of Family Planning Radio Health Messages on Knowledge of Married male employees

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	36.545	1.172		31.190	0.000
Family Planning Radio Health Messages	1.618	0.151	0.403	10.717	0.000

a. Dependent Variable: Knowledge of Family Planning

Source: *Field Survey, 2024*

Tables 6a and 6b show that married male employees' awareness of family planning was positively and significantly influenced by family planning radio health messages (B= 1.618, t= 10.717, $p<0.05$). The correlation coefficient (r = 0.403, $p<0.05$) indicates that there was a positive and weak significant link between men's knowledge of family planning and family planning radio health messages. This implies that married male employees' understanding of family planning will rise as a result of increased exposure to family planning radio health messages. The model indicates that radio health messages about family planning could be responsible for 16.2% (R2=0.162) of the variation in married male employees' knowledge of family planning. This suggests that radio health messages about family planning could be utilised to increase married male employees' knowledge of family planning. As a result, the null hypothesis—which contends that family planning radio health messages have no significant influence on knowledge of family planning among married male employees in the selected local governments in the South Western part of Nigeria—was rejected.

$H_0$2: Family planning radio health messages have no significant influence on perception of family planning among married male employees in South-western part of Nigeria.

Table 7a Model Summary of Test of Influence of Family Planning Radio Health Messages on Perception of Married Male Employees

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	358.282	1	358.282	38.071	0.000
	Residual	5590.005	594	9.411		
	Total	5948.287	595			

R= 0.245
R Square = 0.060
Adjusted R Square = 0.059

Source: *Field Survey, 2024*

Table 7a indicates the model summary of hypothesis two.

Table 7b Showing the Influence of Family Planning Radio Health Messages on Perception of Married Male Employees

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	31.204	0.758		41.142	0.000
Family Planning Radio Health Messages	-0.603	0.098	-0.245	-6.170	0.000

a. Dependent Variable: Perception of Family Planning

Source: *Field Survey, 2024*

Tables 7a and 7b show that married male employees' perceptions of family planning were significantly impacted negatively by family planning radio health messages (B= -0.603, t= -6.170, $p<0.05$). According to the correlation coefficient (r = -0.245, $p<0.05$), married male employees' perceptions of family planning were negatively and weakly significantly correlated with family planning radio health messages. This shows that men's perceptions of family planning deteriorate as a result of increased exposure to family planning radio health messages. According to the model, married male employees' perceptions of family planning could vary by 6% (R2 = 0.060) depending on the family planning radio health messages they listen to. This implies that married male employees may have a negative perception of family planning as a result of listening to family planning radio health messages. As a result, the null hypothesis—which contends that family planning radio health messages have no significant influence on perception of family planning among married male employees in the South-western part of Nigeria—was rejected.

$H_0$3: Family planning radio health messages have no significant influence on the attitude towards family planning among married male employees in South-western, Nigeria.

Table 8a Model Summary of Test of Influence of Family Planning Radio Health Messages on Attitude towards Family Planning among Married male employees

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	22.132	1	22.132	1.917	0.167
	Residual	6856.404	594	11.543		
	Total	6878.537	595			

R= 0.057
R Square = 0.003
Adjusted R Square = 0.002

Source: *Field Survey, 2020*

Table 8a indicates the model summary of hypothesis three.

Table 8b Showing the Influence of Family Planning Radio Health Messages on Attitude towards Family Planning among Married male employees

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	18.308	0.840		21.796	0.000
Family Planning Radio Health Messages	-0.150	0.108	-0.057	-1.385	0.167

a. Dependent Variable: Attitude Towards Family Planning

Source: *Field Survey, 2024*

Tables 8a and 8b show that attitudes towards family planning among married male employees were not significantly impacted by family planning radio health messages (B= -0.150, t= -1.385, $p>0.05$). It can be inferred that married male employees' attitudes towards family planning are not significantly affected by radio health messages about family planning. As such, the null hypothesis, which contends that attitudes towards family planning among married male employees in the south-western part of Nigeria are not significantly influenced by family planning radio health messages, was accepted.

6. Summary of Findings

	Test of Hypotheses		
$H_0$1	Family planning radio health messages have no significant influence on knowledge of family planning among married male employees in the South-western part of Nigeria.	P<0.05	Significant
$H_0$2	Family planning radio health messages have no significant influence on perception of family planning among married male employees in the South-western part of Nigeria.	P<0.05	Significant
$H_0$3	Family planning radio health messages have no significant influence on the attitude towards family planning among married male employees in the South-western part of Nigeria.	P>0.05	Not Significant

7. Conclusion and Recommendation

Based on the study's findings, it can be concluded that married men's perceptions and knowledge of family planning were significantly influenced by Family Planning Radio Health Messages, but not their attitudes towards the practice. Although many respondents were unaware of family planning centres, they were aware of family planning and its purposes, as well as some of the methods and how to apply them. Moreover. Respondents disagreed that family planning (FP) is beneficial for women who are still having children and that FP radio health messages are frequently directed towards men.

Based on current knowledge of family planning, it is recommended that Family Planning Radio Health Messages focus more on teaching the target audience on the various family planning methods available. Because radio has a visual disadvantage, Family Planning Radio Health Messages should take a very descriptive approach, painting a mental picture and semblance of reality for simple understanding. Family Planning Radio Health Messages should inform the intended audience about family planning methods and how they are beneficial for women who are still having children, as well as how they have manageable negative effects. Additionally, Family Planning Radio Health Messages has to be refocused to target men also not just women alone since men have the headship position in many families in south-western part of Nigeria. Furthermore, Family Planning Radio Health Messages planners should receive timely and sufficient family planning information from stakeholders, such as; the Federal Ministry of Health, State Ministries of Health, Local Government Department of Public Health, Planned Parenthood Federation of Nigeria (PPFN), all health workers, and all family planning agencies and bodies. The stakeholders must also help media strategists create messages that meet the target audience's cultural and religious values in addition to addressing misconceptions. Stakeholders can sponsor Family Planning Radio Health Messages as another way to assist the media planners. Doing this would help to address the rising population of Nigeria which characterised unemployment, inadequate tertiary institutions to cater for the teeming youths, lack of medical facilities, low per capital income, and environmental deterioration, among others experienced in Nigeria (Victor, 2018).

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Urban Flood Risk Impact on Road Accessibility and Socioeconomic Life in Egor Geographical Area of Edo State, Nigeria

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Abstract. Road accessibility as well as the height of socioeconomic activities can be predicated by many factors. However, in many urban areas of developing countries, road flooding has become a concern to both movement and socioeconomic activities. Hence, this study was conducted to examine the impact of flooding on road accessibility and socioeconomic life in Egor Geographical Area of Edo State, Nigeria. The study adopted the case study survey, with nine zones of intense flooding purposely selected for the investigation. Thereafter, forty-two copies of a semi-structured questionnaire were administered in seven streets in each zone. In addition, field observation was conducted to supplement data from the questionnaire. The data were analysed using descriptive statistics, while analysis of variance (ANOVA) test was used to compare the level of flooding among the identified zones. The result showed that major cause of flooding in the area was lack of adequate channelization of flood waters in many roads, especially among the local feeder roads. It was also found that, the few drainage facilities of the major arterial and collector roads were silted with flood debris and mud sands washed off from the untarred local roads. With respect to severity of flooding, while field observation showed that flood menace was a familiar thing around streets in the study area, the level of severity however, was found to be statistically different among the zones. Damage to road infrastructure, restriction of movement, high cost of transportation, displacement of people, insecurity and loss of property were among the socioeconomic consequences of flooding in the study area. The study recommended that government intervention measure to road flooding in the area should be holistic rather than the disjointed incrementalist approach often adopted.

Keywords*:* Accessibility; Egor; Flooding; Life, Road; Socioeconomic

1. Introduction

Flooding is one of the major contemporary environmental problems of man in this twenty first century. According to WDR (2010) study of natural hazards in the United States for the period between 2000 and 2008 indicated that, among the various natural hazards, floods have affected the largest number of people all over the world, with an estimate of 99 million people affected by flood incidence each year. This is especially the case in most wetlands of the world (Bariweni *et al* 2012). Recently, floods and its consequences are becoming too frequent and threat to sustainable development in human settlements (Aderogba, 2012). According to Merriam-Webster (2012 reported in Magami, Yahaya, and Mohammed, (2014), flood is a rising and over flowing of a body of water especially onto normally a dry land. While Etuonovbe (2011) noted that flood happens when a land that is usually dry is covered with water of river overflowing or heavy rain.

Flooding can be attributed to a number of factors including natural and anthropogenic factors (see Bruijnzeel, 2004; Ziegler, *et. al.* 2009; Atabay, *et. al.* 2013; Nwigwe and Emberga, 2014, and Lokonon, 2016). However, urbanization has become one major agent of urban flooding due to land use intensity in urban area (Zhang, *et* al, 2019; Mukherjee, 2016; Oyeleye, 2013; Ezemonye and Emeribe, 2011 and Odjugo *et al*., 2006). While urban flooding in this regard, is the inundation of land or property in a built environment particularly in more densely populated areas (Mukherjee, 2016), urbanization on the other hand is the process of population shift from rural

setting to urban life style. It is the outcome of socio-economic and political developments that result in urban concentration and growth of large cities, changes in land use and transformation from rural to metropolitan pattern of organization and governance (Godly, 2008). Urbanization can also be seen as a development process that involves the intensive use of land which results in high rate of land consumption in urban centres thereby leading to the expansion with respect to areal extent of urban land use Oyeleye (2013)

In the last two decades now or so, the rates of rate of urban expansion have been extremely alarming, both in land use and population pressure. For instance, in 2008, for the first time in history, half of the world's population reportedly lived in urban areas and it was reported that urban areas were further expected to experience most of the future global population growth (United Nations, 2010). Intensity of urban land use does not only lead to flooding in urban areas (Mukherjee, 2016; Oyeleye, 2013; Ezemonye and Emeribe, 2011 and Odjugo *et al*., 2006), but can also have the potency to increase the scale and frequency of floods and can expose communities to increasing flood threats (Parker, 2000; USGS, 2003). In Nigeria for example, the 2012 flood according to the National Emergency Management Agency (NEMA) distorted 30 states, with 7 million people affected. From the report, 587,476 houses were destroyed, 2.3 million people displaced and 363 deaths were reported. Also, several farms were submerged, animals and many biodiversity were killed and loss of over 500, 000 barrels of oil each day.

Although urban expansion is a global observation which has occurred significantly all over the world; but in the developing countries however, it has been observed in recent time to have taken a different dimension. In these countries, contemporary urbanization is not only rapid in nature but also problematic in character (Aina, 1992). In particular, the negative impact of flooding on road network has not been given adequate attention in the past (Pyatkova, Chen, Butler and Vojinovic, 2019). Yet, the road is an essential element for social security, socioeconomic growth, friendly environment and spatial interaction. Roads are critical element of urban environment due to the repercussions of their disruptions (Tacnet and Mermet 2012). In Egor local government, the current study area, where land use intensity in the face of expanding population and inadequate urban plan policy has manifested to increasing rate of flood menace and problem of road accessibility on movements and socioeconomic life. Against this backdrop, this study examined the nature of flooding in the study area, with emphasis on the impact on roads accessibility and socioeconomic life in Egor, Edo State, Nigeria. In the process, the study attempted to explore the views of the ordinary people affected by flood menace and the varied impacts on their interaction in order to concretize basis for policy framework to manage the issues and challenges raised.

The Study Area

The study focused on Egor Geographical Area of Edo State (Figure 1). Egor is one of the five LGAs that made up the present Benin Metropolis and the third largest LGA in population both within the metropolis and the whole of Edo State. Its headquarters are in the town of Uselu. It has an area of 93 km2 and a population estimate of 339,899 as at 2006 which was projected to be 560,816 as at December 2023. In terms of climate, Egor geographical area has a tropical climate like the entire Benin City, with two distinctive seasons (rainy season and dry season), with an average temperature of 28 degrees Celsius, and average humidity level of 68%.

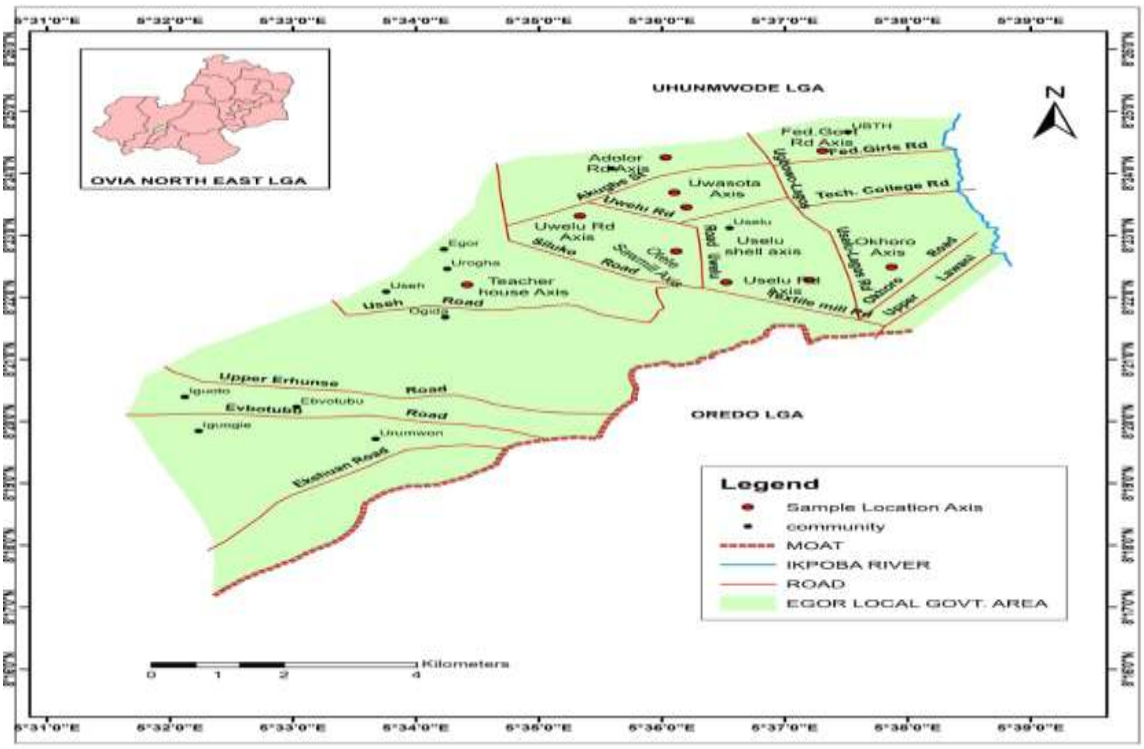

Figure 1: Egor Local Government Area (Inset, Edo State).
Source:

2. Materials and Methods

This investigation adopted a mixed method of sampling in arriving at data for the study. The study made use of mainly primary data sources, collected through a semi-structured questionnaire and field observation. Initially, the purposive sampling was used to select nine zones of intense flooding across the study area. These include Adolor College axis, Federal Girls College axis, Uwasota-Ojo axis and Okhoro-Medical axis. Others are Uselu Shell axis, Uwelu, Teachers' House-Egor, Otote-Osakpanmwan and Edaiken axes. Thereafter, systematic sampling technique was used to select the final streets and individuals for questionnaire administration within each sample zone. In each zone, 42 copies of the instrument were administered in seven streets, with six copies per street to persons between the ages of 18 years and above who could adequately address the questions raised on the contextual issue. Field observations were conducted at regular interval at both raining and non-raining days. The justification for on-rain observation was to have detailed knowledge of the degree and frequency of flood incidence immediately after rains and its multiplier effects on both accessibility of roads and socioeconomic activities in the area. The questionnaire responses were analyzed using mainly descriptive statistics, while analysis of Variance (ANOVA) test was used to determine the differences in the rate of flooding among the selected zones.

3. Results and Discussion

3.1 Background Information of the Respondents

Unlike many related studies, this present work relied more on the views of the local people affected by flooding to establish valid arguments for policy formulation and action direction. This projected the study not only unique, but also particularly distinctive from the more abstract and mechanical approach of much of existing studies, which appeared to downplay the opinion of the ordinary people affected by flood incidence in establishing valid arguments and theories for policy formation and action direction. Therefore, in order to ensure the credibility of information used in the study, a semi-structured questionnaire was administered to a defined sample of the population with specific attributes that included people of age eighteen and above, and who have adequate knowledge of their locality and thus must have lived in the area for a cumulative number of years not less than five years (see Table 1). The survey which

started in November, 2022 lasted till August 2023, in order to adequately monitor flooding characteristics in the study area and its implication on roads and socioeconomic activities of the people.

Table 1: Background Information of Respondents

Sampled Location (Axis)	Sample Size	Gender		Age in Years			Years of Stay in the Area		
		Male	Female	Under 25	25- 44	Above 44	≥5 -10	11 - 20	> 20
Adolor College Road Axis	42	20	22	14	19	9	20	19	3
Federal Girls College Axis	42	15	27	15	17	10	18	18	6
Uwasota-Ojo Axis	42	19	23	12	21	9	16	22	4
Okhoro-Medical Axis	42	24	18	16	19	7	17	15	10
Uselu Shell Axis	42	16	26	14	20	8	14	17	11
Uwele Axis	42	21	21	17	18	7	18	16	8
Teacher's House-Egor Axis	42	23	19	13	21	8	20	8	14
Ototе-Osakpanmwan Axis	42	14	28	12	19	11	19	14	9
Edaiken Axis	42	22	20	15	17	10	17	13	12
Total	378	174	204	128	171	79	159	142	77

***Source*:** Authors' Field Survey, 2023.

3.2 Flood Characteristics and Impact on Road Accessibility in The Study Area

3.2.1 Causes, Nature, Rate and Severity of Flooding in the Study Area

Even up to the current moment, most segments of the study area still lack government presence of any sort. Field observation showed that, most of the area is characterised by flood pondages, underdeveloped, clogged, seasonality and inaccessibility of roads as well as threat from flooding. Participant interview revealed that major cause of flooding in the study area was the lack of channelization of most of the roads. And in many pockets of places where there was drainage facility, many of them were however not through to the river or other emptying outlets where flood waters could run into. Instead, flood waters were saturated in few shallow drains which were clogged and did not have clear channelization due to lack of maintenance. According to Singh, *et al*, 2018) and Yang, *et al* (2019), if the road drainage facility is inadequate or poorly maintained to address the runoff caused by high-intensity rainwater, the road system would be the first to be directly affected. This seemed to be the prevailing problem in the study area. In the midst of the majority of roads that were not tarred in the area, it was gathered that local government presence in terms of grading was almost non-existence. Flood problems in the study area was observed to be triggered by the non-construction of most of the roads, where comprehensive drainage system could be built for a stormwater control. Other causes of flooding in the area were poor urban development such as building on water ways, blocking of water channels and government projects. Government projects particularly roads projects have been discovered to trigger flooding in some areas while also trying to address flooding in other areas. A case in point was found around Tome-Line-Uselu Shell axis where government dualization of section of the arterial road (Uselu-Lagos Roads) was seen to aggravate flooding in many locations of the axis. This often occurs where government intervention measures are met to serve as palliative rather than holistically addressing the root cause of flood problem.

In terms of flood severity, the opinion report in Table 2, indicated that most of the selected locations experienced very severe flooding after a downpour. Specifically, areas with the most severe flooding of the local feeder road after a downpour was Adolor College Road Axis with the proportion of very very severe (VVS) responses by residents of 64.3% out of the 42 sampled respondents. Apart from being a low-lying terrain, the longstanding decay of the section of the arterial road as well as the deplorable state of many feeder roads linking the arterial road with no obvious channels to move stormwater within the axis to the main drainage system was observed as the major trigger of flood in the area. It is a matter of time whether the rehabilitation work of government carried out in section of the road (Adolor College Road Junction) while conducting the research would ameliorate flooding problem in the entire neighbourhood. Other area of very severe flooding was Okhoro axis with the proportion of very very severe (VVS) responses by residents of 61.9% out of the 42 sampled respondents. Contrary, the area with the least severe flooding after a downpour was the Teachers' House-Egor axis, with the proportion of very very severe (VVS) responses by residents of 11.9% out of the 42 sampled respondents. Field observation showed that, this axis which hitherto was one of the hottest spots of flooding in the city in the last twelve years or so have now been somewhat relieved through a section of the uncompleted stormwater drainage system started by Comrade Adams Oshiomhole's administration. This stormwater drainage was initially met to move stormwaters in Egor-Useh-Ohonmwon axis and connect them with stormwater drainage system evacuating stormwater in the whole of Benin City to the river.

On the average, many locations of the study area were observed to be facing one level of flooding or the other. Intriguing, the catchment area affected by flooding in the study area has continued to expand as areas not hitherto flooded are now gradually being threatened by flood. This is observed to be facilitated by lack of maintenance of the roads especially, the local feeder roads where almost all of them have no drain system that move flood waters in local areas to the main drainage facility. This is the reason why flood waters in many areas were left flowing on lands. In many areas, the local feeder roads are the most flooded urban environment as property owners in effort to control flooding from their property, channel flood waters into the roads.

Table 2: Severity of Flooding by Zones/Axis (Where: VVS = Very Very severe, VS= Very Severe, S= Severe, NVS= Not Very Severe and NS= Not Severe).

Severity of Flooding	**VVS 5 f/(%)**	**VS 4 f/(%)**	**S 3 f/(%)**	**NVS 2 f/(%)**	**NS 1 f/(%)**	**Total f/(%)**
Adolor College Axis	27 (64.3)	10 (23.8)	5 (11.9)	0 (0.0)	0 (0.0)	42 (11.1)
Federal Girls College Axis	17 (40.3)	5 (11.9)	5 (11.9)	10 (23.8)	5 (11.9)	42 (11.1)
Uwasota-Ojo Axis	19 (45.2)	5 (11.9)	9 (21.4)	5 (11.9)	4 (9.5)	42 (11.1)
Okhoro-Medical Axis	26 (61.9)	11 (26.2)	4 (9.5)	1 (2.4)	0 (0.0)	42 (11.1)
Edaiken Axis	7 (16.7)	18 (42.9)	14 (33.3)	2 (4.8)	1 (2.4)	42 (11.1)
Uselu Shell Axis	19 (45.2)	7 (16.7)	2 (4.8)	11 (26.2)	3 (7.1)	42 (11.1)
Teachers' House-Egor Axis	5 (11.9)	16 (38.1)	13 (34.0)	4 (9.5)	4 (9.5)	42 (11.1)
Otote-Osakpanmwan Axis	22 (52.4)	8 (19.0)	4 (9.5)	5 (11.9)	3 (7.1)	42 (11.1)
Uwelu Axis	19 (45.2)	15 (35.7)	3 (7.1)	3 (7.1)	2 (4.8)	42 (11.1)
Total	161 (42.6)	95 (25.1)	59 (15.6)	41 (10.8)	22 (5.8)	378 (100.0)

Source: *Author's Field Survey, 2023*

3.3 Duration of Flood Waters by Location Before Drying Off

The investigation revealed that the zones/axes with the most severe flooding were also found to coincide with locations having the longest period of stagnant flood waters before total percolation into the ground. Specifically, Adolor College, Okhoro, Federal Girls College and Uwasota-Ojo axes were ranked in the respective order as the first, second, third and fourth locations with highest duration of stagnant flood waters after a downpour before total percolation (Figure 1). This was observed to be possible as most of these locations had similar capacity of drainage system that ensured that the time taken for flood waters to disappear after rains were not likely to be significantly different from place to place in the study area. Again, while this study did not attempt to assess the features and characteristics of soil in the different location, however, the percolation power of soil in the different locations were not also expected to be significantly different from location to location, because the entire Benin City should have the same soil type. In terms of the time taken for the rain waters to run off after a downpour, similar to the Table 2, it was discovered that zones like Adolor and Okhoro axes with a proportion of 64.3% and 61.9% respectively took more time (4hours and above). It was further revealed, that different length of time was required for the flood waters to dry up almost completely in the different sample locations, with the recorded total length tended to be longer than two hours in most of the locations (Figure 1). However, from the bar chart analysis (Figure 1), it could be argued that places which experienced severe flood after a downpour similarly experienced longer time for the rain waters to run off, and this was a major observation during regular field observation.

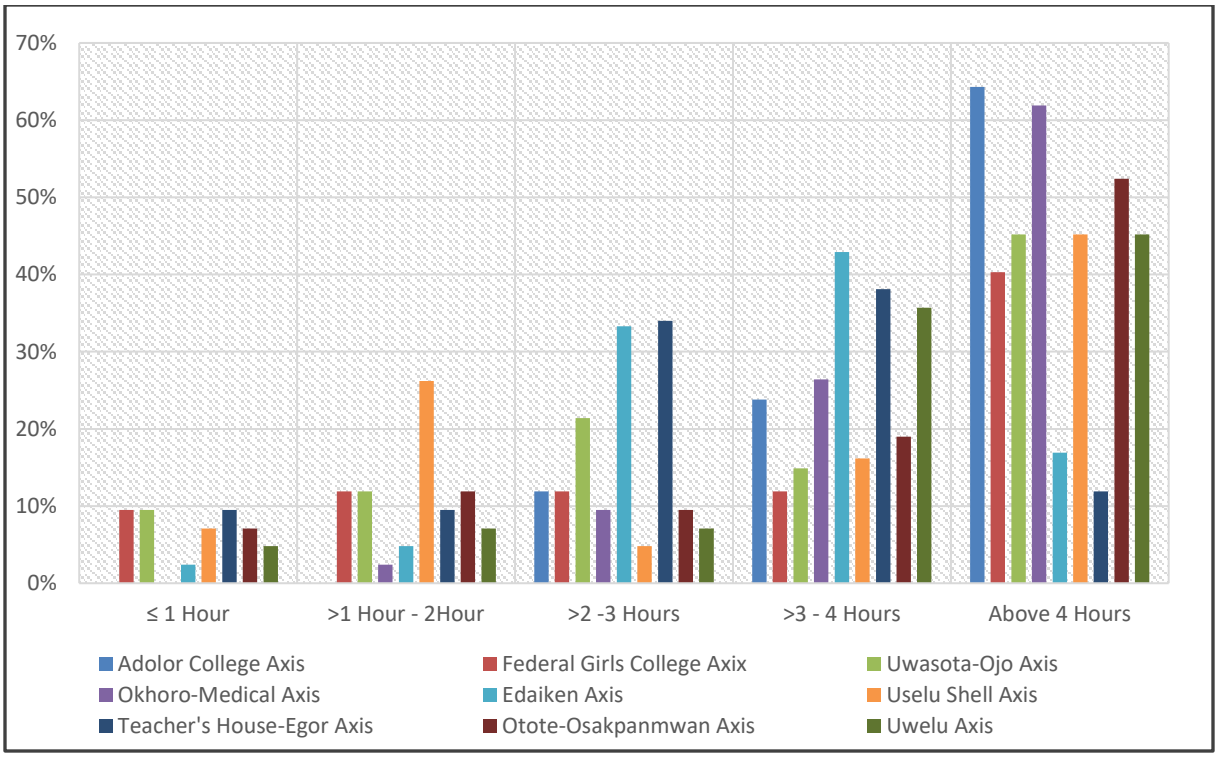

Figure 1: Duration of Flood Waters by Zones/Axes Before Drying Off
***Source*:** Authors' Field Survey, 2023.

3.4 Frequency of Flooding After Rainfall

The frequency of flooding per number of rains was found to be very high among the selected zones except for Uselu Shell and Teacher's House-Egor axes. It was also discovered that, areas such as Adolor College, Okhoro-Medical and Otote-Osakpanmwan axes were the most frequent places of flooding in the study area. This indicates that, flooding occurs almost anytime of rains of some units of intensity. On the other hand, zones such as the Teachers' House-Egor and Edaiken axes recorded the lowest frequency per rains. A clear examination of the information conveyed in Table 2, showed that flooding across the entire study area was as frequent as the frequency of the total number of moderate to heavy rainfall which pointed to the fact that most of the areas experienced flooding very very often (VVO) or very often (VO) according to the participant response opinion of the respondents. Therefore, it can be argued that the vast localities of the study area (67.7%) battled with flood-related challenges and threats (Table 2). And with characteristics of a relatively low-lying terrain and the absence of comprehensive channelization and adequate drainage system for stormwater evacuation in sight, it was clear that, the study area was not likely to get out of flood menace soon, unless active measure were taken to address the current flood challenges in the study area.

Table 2: Frequency of Flooding by Zones/Axes (Where: VVO = Very Very Often, VO= Very Often, O= Often, NVO= Not Very Often)

Frequency of Flooding	**VVO 4 f/(%)**	**VO 3 f/(%)**	**O 2 f/(%)**	**NVO 1 f/(%)**	**Total f/(%)**
Adolor College Axis	27 (64.3)	10 (23.8)	5 (11.9)	0 (0.0)	42 (11.1)
Federal Girls College Axis	17 (40.3)	5 (11.9)	5 (11.9)	15 (35.7)	42 (11.1)
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Okhoro-Medical Axis	26 (61.9)	11 (26.2)	4 (9.5)	1 (2.4)	42 (11.1)
Edaiken Axis	7 (16.7)	18 (42.9)	14 (33.3)	3 (7.2)	42 (11.1)

Uselu Shell Axis	19 (45.2)	7 (16.7)	2 (4.8)	14 (33.3)	42 (11.1)
Teachers' House-Egor Axis	5 (11.9)	16 (38.1)	13 (34.0)	8 (19.0)	42 (11.1)
Ototе-Osakpanmwan Axis	22 (52.4)	8 (19.0)	4 (9.5)	8 (19.0)	42 (11.1)
Uwelu Axis	19 (45.2)	15 (35.7)	3 (7.1)	5 (11.9)	42 (11.1)
Total	161 (42.6)	95 (25.1)	59 (15.6)	63 (16.6)	378 (100.0)

Source: *Authors' Field Survey, 2023*

3.5 Accessibility of Roads After Downpour

According to Mao, Zhu and Duan (2012) and Rentschler *et al*., (2019) in Okechi (2023), flooding reduces transportation network capacity, either directly through physical destruction rendering roads unusable or through floodwater accumulation on the road surface thereby rendering them impassable. Both cases have been observed to trigger severe localized accessibility problem that can later become large scale concern in the study area (see Plates 1 and 2). Many roads in the study area are characterised with absence of drainage facility, pot holes, flood pondages, plant and soil recovery, which poses accessibility challenges even among trekking pedestrians.

Plate 1: Clogged Earth Road with Flood Pondages and Plants Recovery at Edaiken Avenue by Uselu Traditional Grounds
Source: Authors' Field Survey, 2023.

Plate 2: Submerged Portion of Uselu-Lagos Road, by Tomeline Engineers.
***Source*:** Authors' Field Survey, 2023

The position of road networks was loud because in the study because, the roads were observed to represent the key channels of flooding and flood related damages. As property owners scramble for the safety of their property in many flood-ravaged districts of the study area, the roads have become targeted points of flood water channelization and control. The implication of this new dimension of flood water control by the local people is that, most of the community roads, especially the untarred ones are left in shape where they can hardly support accessibility all-year round. While it is obvious that government presence was lacking in many zones of the study area (Plate 3), however, intriguing was the negative attitudes of the people towards flood management and maintenance.

Plate 3: Flooded Portion of the Popular Uwasota Road by Ojo Junction in Benin City.
Source: Authors' Field Survey, 2023.

Consequently, many roads in the area were either seasonal or nearly inaccessible in rainy season. The opinion report in Table 3 indicated that many roads in the study area were not accessible after a downpour. This cumulated to a huge setback to movements and all forms of socio-economic activities which are facilitated by spatial interaction. Movements during rainy season were noticeably not an easy engagement, as time, effort and finances are wasted to overcome spatial distance between locations. In many cases, movements were practically not straightforward, for what Atewe and Chokor (2019) described as winding and circuitous pattern of movement as residents explore escape and exit options around pot holes and other failed portions that characterised most of the roads in an attempt to locate places. While, the level of road inaccessibility after rains was seemingly different between the study zones, it was clear from the opinion result that roads in all the sampled locations had similar shape with little margin of differences in quality (Table 3). Hence, accessibility was worse of in places around Edailen, Uwelu and Otote-Osakpanmwan axes, but better off in places around Okhoro, Uselu Shell and Federal Girls College Axes (See Table 3).

Table 3: Accessibility of the Roads After Downpour

	Accessibility Status		
Locations	Not Accessible f/(%)	Accessible f/(%)	Total f/(%)
Adolor Axis	18 (42.9)	24 (57.1)	42 (11.1)
Federal Girls College Axis	17 (40.5)	25 (59.5)	42 (11.1)
Uwasota-Ojo Axis	19 (45.2)	23 (54.8)	42 (11.1)
Okhoro Axis	15 (35.7)	27 (64.3)	42 (11.1)
Edaiken Axis	20 (47.6)	22 (52.2)	42 (11.1)
Uselu Shell Axis	16 (38.1)	26 (61.9)	42 (11.1)
Teachers' House-Egor Axis	21 (50.0)	21 (50.0)	42 (11.1)
Otote-Osakpanmwan Axis	19 (45.2)	23 (57.8)	42 (11.1)
Uwelu Axis	20 (47.6)	22 (52.2)	42 (11.1)
Total	165 (71.4)	213 (28.6)	378 (100.0)

Source: *Authors' Field Survey, 2023*

3.6 Road Accessibility Options After Downpour in the Study Area

Figure 2 explains the options residents whose roads were easily not accessible immediately after downpour take in reaching their desired places of activities in the study area. From the opinion report of participant respondents, it was evident that residents go through tough times in trying to access their different places of socioeconomic activities during raining season, as they would have to access their destinations either by using alternative routes which were not significantly in better shape than the flooded roads or use the roads in flooded condition. The option of waiting for the flood to recede have been reported with its own consequences on the commuters as this alternative often lead to increase in transportation fare assuming the night catches on with the person if he uses public transportation. On the other hand, using personal car can even be more dangerous, especially in localities where security issue was a concern. Thus, in the event of a break down, the personal driver was reported not only just scrambling for his safety and how to reach his destination, but also how to ensure that the breakdown vehicle was secured. These were the reported reasons why waiting for flood to dry before continuing journey was not usually the option of most people in the area (Figure 2).

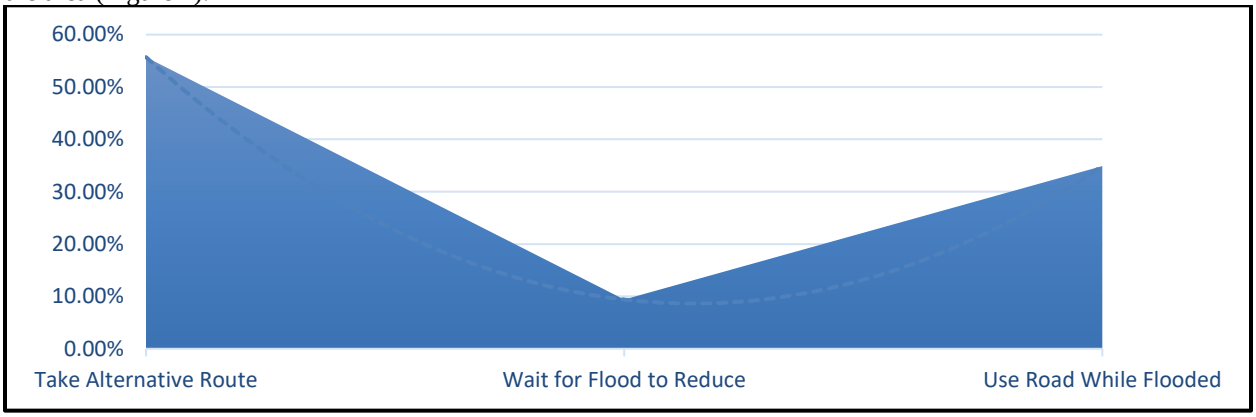

Figure 2: Road Accessibility Options After a Downpour
Source: Authors' Field Survey, 2023.

In that regard, trekking was observed to be the dominant means of movement each time there was a heavy rain. This is because, most of the roads would be flooded beyond vehicle accessibility limit, which makes trekking almost the only means of reaching destination. And where public transportation services are available, they are usually scanty and fare charges very astronomical. However, in areas where motorcycles and tricycles are allowed as means of public transportation, in addition to trekking, the use of motorcycles and tricycles was observed to be very helpful due to their ability to travel in circuit in an attempt to overcome pot holes. This was not however not without change in transportation fare. Field observation showed that transportation fare when roads accessibility was poor due to flooding increased with between 20% and 50% from the original fare.

3.7 Length of Restriction to Movement After Rain Rainfall by Zones

In terms of the how long the restriction last, it was discovered that Adolor and Okhoro-Medical zones with a proportion of 64% and 62% respectively took more time (4hours and above). Other areas of high percentage response for similar duration include Otote-Osakpanmwan, Uselu Shell and Uwelu and Uwasota-Ojo zones (Figure 3). When compared to Table 2 (of severity of flooding), it was evidence that, areas with high severity of flooding were also areas of noticeable long period of movement restriction across the study area.

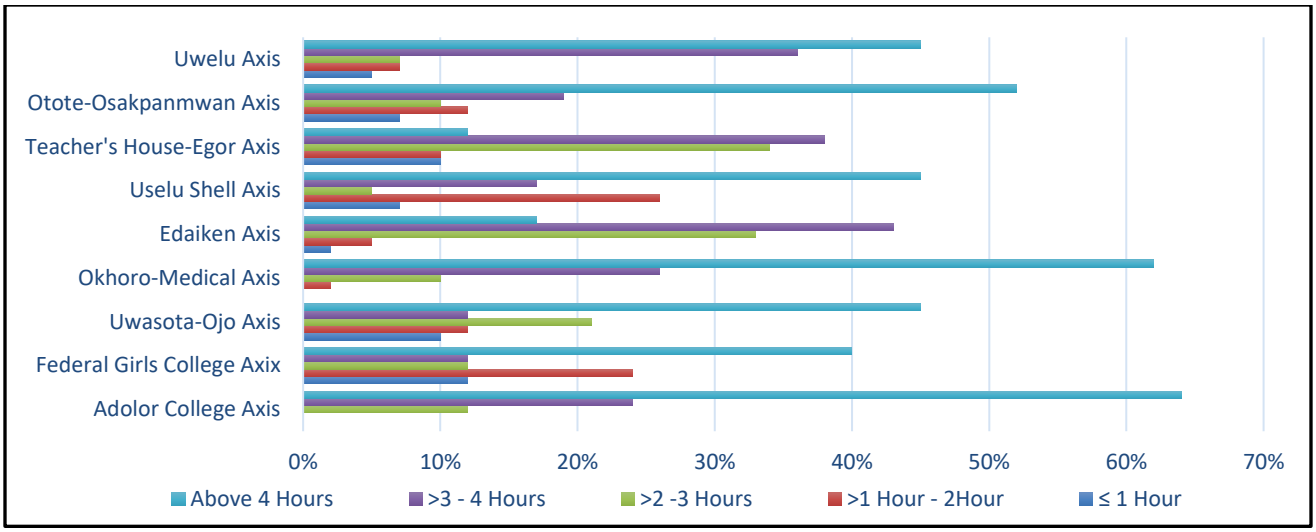

Figure 3: Length of Restriction to Movement After Rainfall by Zones
Source: Authors' Fieldwork,2023.

3.8 Impact of Flooding on Socioeconomic Life of People in the Study Area

The reported problem of flooding in the study area are enormous, ranging from the restriction of movements, forced trekking, increase in transportation cost, social exclusion, insecurity, displacement of people and property, damage to road facility, health risks due to contamination of flood water pondages, and low level of socioeconomic activities. The result from questionnaire analysis showed that there was a high level of movement restriction across all the selected locations and their environs of the study area with aggregate of 74.1% of the study population conforming this. Restriction of movement in this study was operationalized as time lag, inability to access a location at the appropriate time or total denial of access a location. Based on the report, residents of Okhoro and Adolor axes were the most restricted by flood pondages, while residents of Teachers' House-Egor and Uselu axes were the least restricted (Table 4).

Table 4. Restriction of Movement by Flooding

Restriction of Movement	Yes f/(%)	No f/(%)	Total f/(%)
Adolor Axis	38 (90.5)	4 (9.5)	42 (11.1)
Federal Girls College Road Axis	28 (66.7)	14 (33.3)	42 (11.1)
Uwasota-Ojo Axis	34 (90.0)	8 (10.0)	42 (11.1)
Okhoro-Medical Axis	39 (92.9)	3 (7.1)	42 (11.1)
Edaiken Axis	26 (61.9)	16 (45.2)	42 (11.1)
Uselu Shell Axis	27 (64.3)	15 (35.7)	42 (11.1)
Teachers' House-Egor Axis	22 (52.4)	20 (47.6)	42 (11.1)
Ototte-Osakpanmwan Axis	31 (73.8)	11 (26.2)	42 (11.1)
Uwelu Axis	35 (83.3)	7 (16.7)	42 (11.1)
Total	280 (74.1)	98 (25.9)	378 (100.0)

Source: *Authors' Field Survey, 2023*

Field observation revealed that many of the roads leading to districts in the study area were almost in a state of inaccessibility during rainy season (see Plates 4 and 5). These roads are mostly the untarred local earth roads which

are the most in number and connect almost everywhere in the LGA. These roads therefore, help in serving local access to residential neighbourhoods and also serve useful role in exchanging traffic between them and the major arterial roads that connect the entire urban space. But, because of their very nature in which most of them have unpaved earth surfaces, and with absence of functional drainage system that can help to reduce the effect of caving in flood waters, therefore, flood waters often damage them easily, turning them into channels through which the entire urban environment was ravaged by flood menace. According to Buren and Buma (2012), water that stagnate on roads due to lack of good drainage system or any better means to prevent flooding leads to traffic congestion and stagnation, and if the water should reach a certain level or depth, this can lead to traffic stoppage.

Plate 4: Submerged Portion of Collector Road At Egualaba Street, Beside Uselu Psychiatric Hospital, Benin City. Authors' Field Survey, 2023.

Plate 5: Flood-Ravaged Aburime Street, off Federal Government Girls College Road, Ugbowo, Benin City.
Source: Authors' Field Survey, 2023.

Poor road accessibility has turned out several multiplier effects that are not limited to movements alone but also the pace of socioeconomic activities in the study area. In this regard, interview responses on the impact of road flooding by respondents in the study area include destruction of electricity facilities (poles), epileptic power supply, which get worsened during rainy season in many parts of the area; business inactivity and regular closure, inaccessibility of business area and general low patronage. Many of the area do not support wide range businesses and other active socioeconomic and human settlement due to low level of accessibility especially during rainy season. As a result, population threshold in these areas and their immediate environment may not be enough to sustain active socioeconomic activities. This is the reason why many flood-ravage districts cannot support businesses effectively.
Road flooding in the study area has also been found to breed psychological and mental health problem among affected landlords and even tenants especially those that flood incidents have inflicted severe damage to their property. Interview of some respondents revealed that, many residents in flood-ravaged areas suffer from flood-related apprehension that can even lead to serious health condition in areas where respite to flood problem was not in sight. Hence, flooding has been reported to breed psychological trauma among victims of flood-ravaged areas. This finding is consistent with the work of French, Waite, Armstrong and Rubin (2019) which found a strong correlation between flooding and probable mental health outcomes. It was also found that, residents in flood-prone (especially repeated flooding) areas had poorer health-related quality of life (HRQoL).

3.9 Measures of Flood Control in the Study Area

While opinion report from the respondents have shown that there is very little or no government intervention in addressing flood challenges in the study area (with 74.1% of the aggregate respondents saying there was no government support and 25.9% of the aggregate respondents saying there was government support), lesser proportion of the study population (46.1%) have however, turned to self-help to ameliorate flood problem in their locality. Among measures taken by these people include construction of local drains, sand filling, construction of local bridges and construction of flood barriers. While self-help can be encouraged especially issues that cannot wait for government bureaucratic process, opinion report however, showed that these local measures have not been effective to address flood problem in the study area. This conclusion was premised by the responses of the majority (70%), which tended towards "Not effective" in relation to the effectiveness of the local measures with only 30% stating that the local measures have been effective. This suggest that more drastic action targeted at ensuring comprehensive engagement

Source: *Field Survey (2023)*

This, however, it could not be concluded if the different were statistically significant using descriptive statistics. In determining th analysis of variance (A statistics was employed. Table 5 showed the descriptive statistics of the result. differences in the severity of flooding among the different localities
Table 5: ANOVA Table of Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.9248	5.1257	3.6300	.80520	378
Residual	-1.11093	.87186	.00000	.39905	378
Std. Predicted Value	-2.118	1.858	.000	1.000	378
Std. Residual	-2.638	2.070	.000	.948	378

a. Dependent Variable: Level of flooding

Similarly, in Table 6 (ANOVA table of significant), the p-value (.022) turned out to be less than the borderline alpha value of 0.05, which implies that there was a significant difference in the level of flooding among the selected locations in the study area. Therefore, the null hypothesis was rejected while the alternate hypothesis stating that there is a significant difference in the level of road flooding among the selected locations in the study area.

Table 6: ANOVA Table of Significant

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.484	9	.161	3.342	.022
Within Groups	4.631	368	.048		
Total	5.115	377			

Source: *Field Survey (2023).*

3.10 Model Validation

The hypothesis "there is no significant difference in the level of road flooding among the selected locations in the study area" was tested to ascertain if there was a significant different in the level of flooding among the selected locations. Although, the descriptive analysis has revealed mark of flood control is needed in the area. Unfortunately, in many instances, government only adopt disjointed incrementalist approach which only offers quick fix solutions when the problem has become wide scale, eyesore and in most cases eliciting strong criticisms from the media. And because a holistic action is not immediately taken to arrest the entire problem, very soon, the issue returns back to the original worrisome state.

4. Conclusion and Recommendations

The study was conducted to examine urbanisation and flood risk impact on road network and accessibility in Egor Local Government Area of Edo state, Nigeria. The study adopted the case study survey design, with nine zones of high rate of flooding purposely selected for the study. Data were collected through a structured questionnaire and field observation. Thereafter, forty-two copies of the questionnaire were administered in seven streets of each zone, with six copies systematically administered in each street. These were analysed using mainly descriptive statistical test while analysis of variance (ANOVA) was used to test the stated hypothesis. The result revealed that there were several causes of flooding in the study area but the lack of adequate channelization was the major reason of road flooding in Egor. It was also reported that the frequency of flooding in the study area is as high as the number of moderate to heavy rains. In terms of severity, the study revealed that flooding was severe in all the selected zones which was however, observed to be different among the zones. It was also gathered that government response to flooding in the area has been very minimal. As a result, the people have resorted to self-help method of ameliorating the problem through local measures such as sand filling, construction of local drains, bridges and sand barriers across property, with very little success achieved. The study therefore recommended that government take urgent measure in addressing flooding in the area to avoid expansion the of its scale or area of influence. It is also recommended that government intervention measure to road flooding in the area should be holistic rather than the disjointed incrementalist approach often adopted to bring palliative measures to the people.

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The Political Murder of a Theocratic Leader, Muhammad Yusuf: Boko Haram's *Jihadist*-Inspired Uprising in Nigeria

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Abstract. This paper is a critical study of Boko Haram's strategy of avenging the killing of its leader, Muhammed Yusuf, while under the custody of the Nigerian Police Force on July 30, 2009, in Maiduguri, Borno State, and the pursuit of its jihadist agenda. This specific killing turned a relatively peaceful religious propagandizing group into one of the most brutal and deadly in the world. Boko Haram's transformation from a peaceful religious activity to a violent anti-establishment movement led to the widespread killing of security forces and innocent citizens through suicide bombings, assassinations, kidnappings and the destruction of properties worth billions of Naira. Initially, the security personnel, whom the group identified as responsible for the death of its leader, were the main target before the uprising expanded into a "holy war" consuming the whole nation. Boko Haram's strategy is an unislamic offshoot of the ideas of jihadist scholars, who propagated extremist religious tenets for the transformation of society into an Islamic one. This has not been studied in depth by scholars and commentators, who have rather paid more attention to the insurgents' historical origins, foreign allies, support and open battle with the Nigerian military. The insurgents' bombing of security facilities, markets, mosques, schools, and churches led to the deaths of many and the destruction of property. Such a misguided strategy, which is the outcome of the influence of jihadist scholars' sermons transmitted through legends, books, social media outlets and lectures, has led to the loss of lives, a high number of deserters and demoralized the security forces, and put fear in the minds of citizens, leading to mass migration and the setting up of internally displaced persons (IDP) camps.

Keywords: Boko Haram, *Almajiri*, Revivalism, *Jihad*, Suicide Bombing and Terrorism.

1. Introduction

Scholars and commentators have discussed the historical roots and rebellion of Boko Haram from a variety of perspectives, including origin and ideology (de Montclos, 2014; Montzikos, 2010; Bukarti, 2020); economy (Familusi, 2018); religious belief (Agbiboa, 2003; Smith, 2015; Ibrahim et al. (eds.), 2017; Thurston, 2018); foreign relationship (Karmon, 2014; Connell, 2012); and violent disposition (Mainaagwa, 2013, Mantzikos, 2013, Walker, 2016, Salihi, 2012; Bakare, 2009; Hines, 2009; Ibrahim, 1998; Hentz, 2018). Despite the group's almost two decades of existence as a terrorist movement, "arguably so much remains unknown about its past all the way to its present" Adedeji (2021:5). To our knowledge, no one believes that Muhammad Yusuf's murder while a prisoner of the police and foreign *jihadist* scholars' *fatwa* (sermons) and literature are the major contributory factors in the transition of the group into extremism, fanaticism and violence. The transformation of a rather peaceful religious movement into an extremist, ultra-radicalized and violent one requires the existence of "a smoking gun," such as the resentment kindled by real or perceived injustice (Sageman, 2005) or the murder of the leader of the group, Muhammad Yusuf, by the security forces and the frustration and desperation of the group against the Nigerian State.

Displaying Yusuf's bullet-ridden body to the press on July 30, 2009 led the group to form an open, organized religious-political movement opposing state structural violence and existence. It evolved from a loose organization into a structured and hierarchical one that was encircled by religious fervor and the desire for retribution against the culprits, the Nigerian Police Force initially and the Nigerian State in general. In

order to exact revenge on the state for the wrongs done to it, for the murder of its leaders and followers and promote the establishment of an Islamic Caliphate, it turned to violence and physical force rather than continuing with its initial strategy of quietly spreading its religious ideology. Since that incident, Boko Haram has become increasingly militant and militarized, as a result of its evolving view of violence as the core tenet of its conflict with the authorities.

Yusuf's corpse was never returned to his family for burial and even those who attempted to retrieve the body, such as his in-law, Baba Fugu, were eliminated in the process. He was buried in a mass grave with some of his followers at an unidentified site. This decision by the government may have been motivated by the apprehension that Yusuf's grave could end up being used as a shrine or a rallying point by his supporters for future uprisings.

Thus, Yusuf suffered the same fate as other *jihadists and* anti-establishment and revolutionary leaders, such as Che Guevara, Patrice Lumumba, Muhammed Marwa Maitatsine, Osama Bin Laden, and Muammar Gaddafi. Maitatsine led a religious uprising in Kano and was killed and cremated by the security on December 18, 1980 (Braji, 1998) and Hiskett, (1987). Che Guevara, a communist revolutionary, was executed, dismembered and buried in a mass grave in Bolivia on October 9, 1967 (Ratner and Smith (2011) and Castañeda (1998). Patrice Lumumba, an elected Prime Minister, was killed and burned to ashes with two of his Ministers in the Democratic Republic of Congo on January 17, 1961 (De Witte, (2001), Robert (1971) and Robin (1969). Osama Bin Ladin was hunted and killed by the United States (US) Marines in Pakistan on May 2, 2010, and his corpse buried in the northern Arabian Sea (Bowden, 2012; Hersh, 2017) and Muammar Gaddafi was killed in Sirti, Libya, on October 20, 2011 and buried in an undisclosed location in the desert with his son, Mutassim, and his Military Chief, Abu Bakr Younes (Netto, 2014; and Davidson, 2017). These individuals share the same fate with Muhammad Yusuf and ended without a marked gravesite for fear that such a luxury may rally support and instigate an uprising against the system.

1.1 *Ustaz* Muhammad Yusuf Background

The area under the daily attacks of Boko Haram was the first to come into contact with Islam around the second half of the 7th century through travelers, traders and scholars in central and western Sudan (Zanna, 1993; Shehu, 2018). The contact shaped the socio-economic and political setup of the region. The conversion of the traditional rulers, the *Mais*, such as *Mai* Bulu, *Mai* Aiku, *Mai* Kadi and *Mai* Ummi, led to their dominance and expansion within the Kanem-Borno empire and neighboring territories covering the entire Lake Chad Basin. The area was known for its Islamic knowledge, literature and culture. Renowned scholars and jurists, such as Sheikh Al-Bakari, Sheikh al-Najib al-Takiddawi, Sheikh Abu Bakar Al-Bakumi, Sheikh Tahir bn Ibrahim and Sheikh Tahir, flourished and taught the religion to the local people (Yusuf, 2016). However, Islamic scholarship is embodied in struggle to follow and return to authentic tenets and the abandonment of non-Islamic practices. Thus, schisms within Muslims have been a daily occurrence for decades, with many sects, such as *Qaddriyya*, *Tijjaniyya*, *Shi'a, Ahmadiyya, Qur'aniyyun, Muhammadiyyu* and *Sufism* and *Ahla Sunnah* or the *Salafist*, struggling to have more adherents in the area. This is not surprising, as the roots of revivalism are part and parcel of the traditional learning system of the religion in the region, where thoughts and ideas are changed from intellectual differences into physical ones. The region and its neighboring areas have been witnessing numerous Islamic revivalist movements for centuries. A good example is Mai Dunama Dabbalemi, who reigned in Kanem Borno from 1210 and 1259 and waged a *jihad* against the surrounding tribes, thereby incorporating and expanding the influence and reach of the religion. The 14th-century rise to power of Sultan Ali Yaji of Kano after the battle of Santolo led to the transformation of the Hausa Kingdom into an Islamic Sultanate around 1359–1385. Thus, Islam and Islamic revivalism had been part of the history of these areas even before the arrival and propagation of the religion by Usman Dan Fodio and the establishment of the Sokoto Caliphate. It is, therefore, wrong to have asserted that Dan Fodio's 1804 *jihad* was the first seed of Islamic uprising in Northern Nigeria. It is, however, true to say that the 1804 Sokoto revivalism is more studied for its reformist agenda against polytheism in Northern Nigeria and for the establishment of a theocratic state, the Sokoto Caliphate. Usman Dan Fodio, an Islamic cleric, used the religion to recruit the peasantry who had been under the exploitation and corrupt system of Habe Kings. The Sheikh succeeded in uprooting the Habe hereditary system of governance and substituting it with another under his lineage, the Fulani (Phillips, (2017). Nevertheless, the *Mais* of the Kanem-Borno Empire had Islamized most parts of Northern Nigeria and the Lake Chad Basin area for decades before Dan Fadio's uprising. Despite this cementation, the areas had witnessed violent uprisings led by Islamic fundamentalists, such as Malam Dubaba (alias Sheriff ad-Din), who declared war against Baghirmi; Malam Ibrahimu (the 1870 uprising in Kano); Hayatu bin Said (1878–1898), a *Mahdist*

opponent of the Sokoto Caliphate, who waged war against the Shehu of Borno with the help of a rebel, Rabeh Zubayr; Alfa Saibu or Shuaibu Dan Makaho (of the uprising of 1906 in Dosso, Niger region); Malam Isa (a *Mahdi* rebel of 1914); Miji-n-Aoun of Katsina (1927) and the 1967 revolt of Youra Bourdon from Ladou of South Geidam, Yobe State (de Montclos, 2021). The most recent were Annabin (Prophet of) Doko (a town in the present Jigawa State), the Maitatsine uprising in Kano in 1980, Kaduna and Bulunkutu in 1982 and Yola in 1984, the Kala-Kato crisis in Bauchi in 1985 and Muhammad Ali's Kanamma uprising in 2003 (Adesoji, 2010, Braji, (1998) and Walker, 2016).

Thus, under this atmosphere and culture, Yusuf was born and grew up. His life-history is shrouded in confusion, from his date of birth to his struggle for Islamic knowledge and relationship with diverse sectarian scholars in the northern part of Nigeria. He is a Yobe State native on both his father and mother's sides. His father was from Jakusko and his mother from Gashua, although he was born in Girgi, a village in Jakusko Local Government, Yobe State, North Eastern Nigeria between 1967 and 1970. Girgi is an agricultural rural settlement populated by farmers and herders in Jakusko Local Government. Thus, farming and animal husbandry are the key features of the area's economy. It is one of the most impoverished parts of the state. The village is populated by a conservative Muslim community committed to practicing the *Almajirinci* system of education. The system is the traditional and non-formal means of educating children in Islam and Qur'anic knowledge under the guidance and supervision of a Qur'anic *Mallam* (cleric) (Edinyang et al., (2020); Abdulgadic, (2003) and Zubairu and Yahaya, (2020). Thus, Yusuf, as expected, was raised under the influence of the *Almajiri* system, which has been dominant in northeastern Nigeria. He moved with one *mallam* after the other, thereby traversing from one itinerant *mallam* and *Almajiri Tsangaya* (schools) to another as the system allowed.

Thus, historically and culturally, the area where Yusuf was born and grew up, as stated above, falls within the ancient kingdom of the Kanem-Borno Empire famous for its rooted *Sunni* Islamic tradition (Monguno, 2017) and its role in the dissemination of knowledge, literature and scholarship for a long time. Islam reached the area around 665 and 666 AD through merchants and scholars from North Africa and became the state religion with the *Mais* (Kings/Rulers) and citizens believing in its practice and sanctity (Usman and Alkali (eds), (1983) and Shehu, (2018). The area became a sanctuary for those seeking knowledge and was referred to as "the East" (*Gabas)* by the surrounding communities. Thus, it is a region that saw the emergence of "Islamic revivalist movements" under the persuasive conviction of the imminent apocalypse and the rise of the *Mahdi* (Islamic Reformer) (Brakoniecka, 2016; Thurston, 2016; and Sani, 2007). The myth very popular among scholars and the population was that a *Mahdi* will appear as a preacher of religious sermons and, as his followers increase in size and popularity, he will resort to arm struggle to establish a *Daula* (Caliphate) (Yusuf, 2016). *Mahdi* is to reform and strengthen the religion and the *Sunna* of Prophet Muhammad in the land.

As he matured in age and scholarship, Muhammed Yusuf began perambulating as the tradition of *almajiranci* from one renowned scholar or sect to another (Gari, 2017). Although a *Sunni* adherent, he, however, found himself with the *Shi'ite* sect under the leadership of an Iranian-inspired, influenced and funded group, the Islamic Movement in Nigeria (IMN) of Sheikh Ibrahim El-Zakzakky (Hassan, 2015). The group believes in the creation of an Iranian-style Islamic state in Nigeria and acknowledges the authority and pledges its loyalty to Ayatollah Khomeini, the Supreme Leader of Iran, and Sheikh Ibrahim El-Zakzaky only. IMN views itself as a government, with Sheikh El-Zakzaky as the only source of authority, leading it to have running battles with constituted authorities, the imprisonment of its leader in numerous prisons, the destruction of its properties and the killing of its followers, as recently witnessed under President Muhammadu Buhari's administration. The sect lost around 300 members between December 12 and 14, 2015 in its clash with the Nigerian Army (Tijani, 2015). Yusuf's affiliation with Sheikh El-Zakzaky was brief and disagreements with some of the Sheikh's ideas led him to join *Jama'atu Tajdidi Isl*am (JTI), one of the sect's breakaway groups (Salaam, 2013). The *Al-Thaqalayn* Cultural Foundation and the *Rasulul A'azam* Foundation are two other notable Shi'ite factions in Nigeria that oppose El-Zakzkkay and the IMN's ideology and propagation techniques. Yusuf, on the other hand, could not remain with JTI and its brand of Shi'ism for long and returned to the *Sunni* doctrine by joining and becoming a follower of *Jama'at Izalatil Bidia wa Iqamatus Sunnah* (in short: *Izala*) (translation: Society for the support of the Prophet's tradition and against innovations), the dominant and most influential popular Islamic movement in northern Nigeria.

Thus, throughout his sojourn in *Shi'ism*, there was a running battle in his mind between propagation, indoctrination and ideology. Being an ambitious

person, Yusuf realized early enough that Ibrahim El-Zakzaky was an institution within IMN whose authority could not be questioned or easily displaced. The sect has had a laid-down organizational and leadership structure in existence for decades inspired by the Iranian Revolution and changing such structures is impossible. His ambition for leadership and influence could not be easily achieved under such a scenario (Braji, 2023).

In contrast to the Shi'ites, the Sunni group has a loose structure. The group's origins in Nigeria may be traced back to the late Sheikh Abubakar Gumi, a prominent Islamic scholar and Grand Khadi of the then-northern Nigeria. The movement seeks to eradicate traditional, cultural and heretical developments in order to restore society to the true Prophet Muhammad paradigm. To establish a firm foundation in the religion, he joined *Ahl Sunna Wal Jama'ah Hijra*, a Maiduguri-based *Izala* group created in 1995 by a relatively unknown preacher, Abubakar Lawan (Oyegbile and Lawan, 2007). Seizing a vacuum created by Abubakar Lawan's relocation to Saudi Arabia for further studies in 2002, Yusuf catapulted himself to prominence as the leader with a large following, which could not have been possible in IMN or other *Shi'ite* groups. Yusuf ascending to the leadership was not smooth, as followers like Aminu Tashen Illimi opposed him for being too liberal (Gusau, 2009). Izala, on the other hand, provided him with the benefits of developing rapport with and receiving guidance from great *Sunni Salafist* Islamic scholars and members of the group, such as the late Sheikh Ja'afar Mahmud Adam and Sheikh Muhammad Auwal Albani, Sheikh Muhammad Abba Aji, Imam Ali Gabchiya, Sheikh Abubakar Mujahid (Kassim, 2015 and Braji, 2023), Sheikh Kabir Gombe and Sheikh Sani Yahaya Jingir. This allowed him to broaden his horizons and garner followers from Borno, Yobe, Adamawa, and Bauchi States, as well as neighboring nations like Niger, Mali, Chad and Cameroon.

Yusuf showed no signs of extremism, fanaticism or a violent temperament throughout the early stages of his development as a scholar. However, he was more of an ambitious personality, who established relationships with the authorities than someone set on usurping power in order to enforce the *Shari'a* or build a caliphate. He had a friendly demeanor and was eager to learn and share views with experts, such as Sheikh Muhammad Awwal Adam Albani or even debate with other religious intellectuals. One example is the debate he held with Sheikh Isa Ali Pantemi on June 25, 2006 (Abubakar, 2017, Cook, 2018i), which was aired, produced into films and sold all over, reaching thousands of people in their homes. This debate was one of many conducted between 2004 and 2006 between him and other scholars, such as the one with Idris Abdul Aziz Bauchi in February 2008 (Mohammed, 2014).

However, as his ideas grew and his violent *jihadist* tendencies became more obvious, gaps appeared between him and the *Izala* scholars and political leaders in his home state of Borno. He and other young *Sunni* adherents were regular attendees of Sheikh Ja'afar Mahmud Adam's *tafsir* at Indimi Mosque in Maiduguri, Borno State (Smith, 2016). Their connection soured when Yusuf began to diverge from authentic Islamic belief, which led to the death of Sheikh Ja'afar Mahmud Adam on April 13, 2007 while conducting the (Subh) morning prayers at Dorayi Juma'at Mosque in Kano (Brigaglia, 2012b), Zenn (2020) and Braji, 2023i). This killing is recognized to have been "carried out on the orders" of Muhammad Yusuf in response to his criticism of the group's hardline views on many Islamic issues (Walker, 2012:4).

He evolved from an *Izala* group member to the leader of an impending terrorist group named *Yusufiyya* (Fasure, 2009), but known globally as Boko Haram. However, the moniker Boko Haram is a crude representation of the group's opposition to the corruptive effect of Western culture on Muslim society. However, no leader of the group has ever referred to the religious movement as Boko Haram (translated: Westernization (Education) Is Sacrilege or Western Education is a Sin or Sinful). It is a name popularized, especially by the press worldwide.

However, the names preferred by the leadership and membership of the group are *Jama'at Ahl al-Sunnah li-l Da'awah wa al-Jihad, Jama'atul Ahlis Sunnah Lidda' Awati Wal-Jihad* or *Jama'at Ahl al-Sunna li'l-Da'wawa'l-Jihad 'ala Minhaj al-Salaf*, which translates as "People Committed to the Prophet's Teachings for Propagation and *Jihad"* or "The Association of the People of the *Sunna* (i.e., tradition of the Prophet) for Preaching and Jihad according to the *Salafi* Method". By claiming these names, the group can be categorized as a revivalist movement intending to reform the old entrenched traditional system in society to the genuine tenets of Islam.

By claiming these identities, the organization might be classified as a revivalist movement with the goal of reforming society's old entrenched conventional structure to the true fundamentals of Islam. *Yusufiyya* became a revivalist movement in search of regime change. Revivalism is a revolutionary movement that seeks to overthrow the existing system. Islamic

revivalism is an attempt to rediscover Islamic identity and heritage. It is a defensive tactic aimed at combating social vices, foreign influence and culture and domestic tyranny. Although it is not a unified movement, all Islamic revivalists share a common goal: the Islamization of society. Their techniques and emphases varied, depending to the era of existence, ideology and sectarianism, environment or the primary issue confronting society at the time of inception and development. Numerous scholars tried to strengthen Islam through peaceful means, while others preferred the outright destruction of the existing system through violence. Militant hardliners consider violent uprisings as the central means of cleansing the system by engaging in vicious extremism for the establishment of a new social order.

But revivalism through the use of violence is unislamic, as the religion abhors compulsion in religious matters. Verse 256 of Surat al-Baqara of the Holy Qur'an clearly states that "There is no compulsion in religion." Islam has evoked the idea that under no circumstances should a person be forced to accept the religion against his will. Based on this, it is erroneous to define *Jihad* as solely a holy war through physical or armed battle. The religion emphasizes war first against worldly passion and the Devil. The word *jihad* connotes 'striving and struggling' towards moral and ethical values. The religion has no scriptural sanction for holy war, unlike the other major religions, Judaism and Christianity. Obedience to Allah and His messenger is central to *jihad.* Thus, *jihad* as waging a war is of post-Qur'anic usage (Johnson, 1977), as the religion clearly forbids combat without explicit reasons, such as defending oneself to protect the community and free believers from persecution and oppression (Boisard, 1988). Physical warfare per se is just a small part of *Jihad* (Hakim, 2016). Some classical scholars, such as Ibn Taymiyyah and Abu Muhammad Essam al-Maqdisi of Islam influence the present textual misunderstanding and erroneous interpretations of the concept of *jihad* by present-day *jihadists.* This kind of thinking has narrowed down the significance of the concept to its minute purpose. The word "*jihad"* is mentioned forty-one (41) times in the Holy Qur'an, whose central emphasis is the fear of Allah, obeying the messenger, performing religious tenets and sincerity of purpose. Waging war is secondary and has stringent criteria, too. Thus, the struggle for revivalism can better be understood as a war of political domination and conquest, not a religious war per se (Johnson, 1977). This explains its being diverted through warfare, suicide bombing, murder, assassination, destruction, kidnapping and enslavement, occupation and setting up a state.

However, Yusuf's revivalism is not spontaneous spiritual rebirth of a messianic type, as seen in Iran's Ayatollah Khomeini rebellion, but rather a moderately reformist movement seeking followership in order to lead people back to what he thought to be the real Islam. He was more of a follower of Syed Abu Al'a Maududi than a radical Islamic propagandist. Maududi was a Pakistani religious leader and Islamic philosopher, who moved Pakistan through politics and political involvement from a secular to an Islamic Republic. Yusuf attempted to implement his theological program within the democratic political framework. That explains Yusuf's and his group's 2003 election involvement and the installation of Ali Modu Shariff as the Governor of Borno State. The group was rewarded with a slot in the State Executive Council. A staunch member of the group, Alhaji Buji Foi, occupied the seat as Commissioner for Religious Affairs.

1.2 Germination of *Yusufirya* Ideology

Yusuf's charisma, eloquence and rhetoric drew a large number of supporters, particularly among the youth and the poor (Salkida, 2012), who saw him as a savior against the nation's injustice and maladministration. Despite being regarded as a redeemer, he never claimed to be one nor elevated his status to that of a *Mahdi* (i.e., the rightly guided reformer/revivalist or eschatological redeemer) despite the traditional belief in the appearance of such a personality, who would restore the religion to its pristine beginnings in the area (Brakoniecka, 2016). He did not commit the sacrilegious error of Muhammad Marwa, the head of the Maitatsine group and the 1982 Kano rebellion, who claimed prophethood (Hisket, 1987; Adesoji, 2011; and Braji, 1998).

His ability to speak to his audience in their language and provide instances of the situations around them, such as widespread poverty, class exploitation, injustice and dominance, endeared him to them enormously (Cilliers, 2010). Thus, without means of subsistence, the destitute the dispossessed and the uprooted persons without genuine prospects to lead a good life took refuge in the extreme stance of Boko Haram. The majority of its foot soldiers are members of the lumpen proletariat class, motorcycle and taxi drivers, manicurists, shoe-shiners, laborers, school dropouts, *Almajirai* (Qur'anic students), wanderers and the majority of unemployed youth suffering from economic hardships or loss of livelihood due to the drying of Lake Chad and the effects of wars in neighboring Chad, Niger, Mali and Libya.

Yusuf's lectures highlighted armed jihad as an essential responsibility for all Muslims. This became a critical setting for the radicalization and militancy of Boko Haram, which extended throughout Nigeria and the Chad Basin. He was so critical of westernization, regarding it not just as a continuation of foreign dominance but also as a breach of Islamic Law and culture that he founded the short-lived *Yusufiyya* group (Fasure, 2009). His style of lectures for ethical quest was appealing to the impoverished. His sermons and lectures were distributed via audio, video and social media platforms and his writings, such as *Hadhihi Aqidatuna wa Manhaaju Da'awatin* (**This is Our Creed and the Method of Our Preaching)**, preached the precise implementation of Islamic Law, therefore building an intellectual groundwork. This text laid the intellectual foundation for a more conservative movement bent on transforming the Nigerian society into a caliphate through violent uprisings (Cook, 2018). However, this manuscript is an intellectual borrowing from a *jihadist* scholar, Abu Muhammad Essam al-Maqdisi's book, titled **This is Our Agenda.**

Islamic propaganda means conveying the divine message using dialectical techniques, logical reasoning, argumentation and admonition to attract supporters. Yusuf misused the *Qur'an* and the *Hadith* and incorporated the selected *fatwa* of renowned scholars, such as Ibn Taymiyyah's (full name, Ahmad ibn 'Abd-al-Halim ibn Abd-al-Salam, ibn 'Abdullah, Abu al-Abas, al-Harrani, al-Dimasaqi, al-Hanbali, Taqiyya-al-Din, ibn Tayamiyyah) that matched his personal interest of mobilizing, directing and influencing his followers' thoughts, beliefs and feelings to promote his misguided objectives for leadership and the establishment of a pristine society.

Though his sermons were instigating revivalism, he was never openly confrontational until his group clashed on July 26, 2009 with the security forces in Maiduguri, Borno State, which spread across the neighboring states of Yobe, Bauchi, Kano, Adamawa, Gombe, Niger and Plateau. The insurrection led to the deaths of scores of people. Yusuf was apprehended by the military and handed over to the police. He was killed while under their custody. This murder was the 'smoking gun' (to use Condoleezza Rice (2001-2005), President W. G. Bush's National Security Adviser's words) (Wolf, 2003) that transited the group to become one of the most militant, dreaded and violent terrorist units in the world.

2. Evolution to Militancy and Terrorism

"Do not think *jihad* is over. Rather, *jihad* has just begun."
Abubakar Shekau (Tattersall and Maclean, 2010, cited in Pham, 2012:6)

With the killing and displaying of the bullet-ridden body of Muhammad Yusuf, Abu Mohammad Abubakar al-Sheikawi (Shekau) took over the leadership of the group with vengeance in his mind and open opposition to the secular state of Nigeria. Although Shekau's knowledge of Shariah Islamic rules and Arabic was elementary, his closeness to Muhammad Yusuf and bravado endeared him to the followers, who were populated by the dominant tribal group in Borno State, the Kanuri. Sheikh Tahir Ibrahim described the tribe in his poem as "self-elevating people" and "legends for them were (like) the column of a building" (Yusuf, 2016:74). This ethnic group are the most formidable warriors of Boko Haram. Being the "sons of the soil" their knowledge of the surrounding area and coming under the brunt of pervasive poverty for decades explain their commitment to the group's struggle. Shekau turned them into fighting machines and suicide bombers. Familiarity with the surrounding and tacit support of the population, either due to fear or sharing the same ideological belief, explained the numerous successes of the group against the security forces. The group attacks with precision, besieges barracks and confiscates or destroys military arms and installations. Within a short period of time, the group was in control of 20 local government areas of Borno State (Konduga, Kaga, Kala/Balge, Kukawa, Mafa, Marte, Magumeri, Mobbar, Munguno, Ngala, Nganzai, Abadam, Askira/Uba, Bama, Chiko, Dambas, Dikwa, Gubio, Guzamala and Gwoza). The group ran over Damaturu (Yobe State), Mubi (Adamawa State), Bauchi (Bauchi State), Yola (Adamawa State), Kano (Kano State), Kaduna (Kaduna State), Jos (Plateau State), Lokoja (Kogi State) and Minna (Niger State) and other neighboring areas, such as Abuja (Federal Capital Territory). Thus, a movement that began with the purpose of enhancing religious scholarship and upholding puritan theological ethics, returned to the basic tenets by transiting into a terrorist organization. Terrorism is an organized, premeditated and repeated violent action used by either non-state or state actors against civilians and identified opposition groups (in the case of the state actor) for political, religious or social reasons. Non-state actors, such as Al-Qaeda, the Taliban, the Islamic State of Iraq and Syria (ISIS) and Boko Haram use violence unlawfully as a means of intimidating, coercing and instilling fear among citizens in order to undermine constituted authorities. Thus, unlike assassination, which is the selective elimination of influential personalities due to political reasons, terrorism targets citizens randomly for maximum casualties to serve as a message to those in

authority and instill fear among the population. Thus, terrorism all over the world has two fundamental features: the use of violence and the aim of achieving clearly stated political and social objectives. Believing and upholding religious ideology and the right to enforce it leads to their violent predisposition. Extremism is always the driving force behind all terrorist organizations. In addition, terrorist violence is generally not a product of clandestine but of an identified group. The group considers violence central to the cleansing of corrupt establishments. Its first enemy and casualty was the Nigeria Police, whom the group sees as solely responsible for the murder of its leader.

3. Abubakar Shekau: The Rise of a Warlord

With the killing of Muhammad Yusuf, the group transitioned to become the world's deadliest terrorist and pseudo-*jihadi* organization under the leadership of Shekau. Unlike the level-headed, refined and pleasant personality of Muhammed Yusuf, Shekau was seen by most analysts as a madman, a brutal psychopath and an arrogant, bloodthirsty lunatic, a ruthless, vicious, brutal, temperamental and an insane warlord (Brakonieck, (2015) and Braji, 2023). He was Kanuri by tribe and born between 1965, 1969 and 1975 in Shekau, Tarmuwa Local Government, Yobe State. He went through the *almajiri* system of education, as most children do, in search of Islamic knowledge, as tradition entails. Finding himself in the Mafoni area of Maiduguri, the capital of Borno State, he joined the Borno College of Legal and Islamic Studies (now Mohammad Goni College of Legal and Islamic Studies). He dropped out without completing the course and found solace in the company of Muhammad Yusuf, who was a rising scholar in Maiduguri leading a group named *Jamaat Ahlus Sunnah li Dawah wal Jihad.* He was very close to Muhammed Yusuf and recognized as his deputy (Braji, 2023 and Braji, 2023i).

With the death of Yusuf, Shekau took over the mantle of leadership. He used his charismatic personality, bravado, crude knowledge of *Salafism* and multilinguistic ability to cultivate the belief of victimhood among the group. His ability to quote the Qur'an and the *Hadith,* oral sayings and the actions of Prophet Muhammad and promote the need for Islamic puritanism under a caliphate while at the same time depicting the Nigerian state and westernization as enemies through the major local dialects of the area was legendary. Conversing in Kanuri, Arabic, Hausa and Fulfulde mobilized and radicalized the members of the group. He first recorded most of his audio and videos in the most dominant local dialect of the area, Kanuri, as most of his foot soldiers were Kanuri. Such messages were later translated into Hausa, Fulfulde and Arabic for a larger audience and coverage. This strategy exposed the dominance of the Kanuri ethnic group in the sect (Foucher, 2021).

4. The Influence of *Jihadist* Scholars

Abubakar Shekau separated the group from the tutelage of *Izala* and started to act independently by denouncing the authorities for not running the state according to the *Shari'a*. He equated non-compliance with the *Shari'a* with polytheism. His sermons were rooted in the rejection of the secular Nigerian state and the condemnation of western values, public service and governance (Brakonieka, 2016). He used his sermons to polish his views by leaning towards Kharijite's sectarianism and armed *jihadist* scholars, such as Essem Muhammad Tahir al-Barqawi, better known as Abu Muhammad Essam al-Maqdisi, a Palestinian-Jordanian cleric known for his hardline ideological extremism (Wagemakers, 2008). Al-Maqdasi was a "purist *jihadi-Salafi*" and a believer in military *jihad*. He mentored Abu Musab al-Zarqawi, the founder of *Al-Qae*da, and influenced the *Al-Qaeda* leaders in Iraq, Ayman al-Zawahiri and Osama bin Laden. Thus, his sermons, teachings and writings on *Salafi* Islam inspired and enriched terrorists' activities all over the world, including Boko Haram. His *jihadist* website, *Tawhed,* and his books, such as **Millat Ibrahim**, **This is Our Agenda**, **Democracy Is a Religion,** and **The Obvious Proofs of the Saudi State's Disbelief** earned him respect and followership, making him one of the world's most influential *jihadist* theorists and a key ideologue in Islam revivalism.

Like his late leader, Muhammad Yusuf, Shekau also armed himself with Ibn Taymiyyah's theological *fatwas* and writings against *Bidi'a* (innovations) and the promotion of *Jihad* by misusing *Inghimas* (plunging into enemy ranks in order to eliminate as many as possible, thereby sacrificing one's life). The misuse of *inghimas* explains the sect's strategy of using suicide bombing in its fight against the state. Suicide bombing is a deliberate and calculated attack carried out by a person with the intention of killing himself as well as others to achieve specific objectives, which may be political or religious (Choi, (2022) and Hassan, (2008). It is an act in which an individual blows himself up using an Improvised Explosive Device (IED) under his clothing, belongings or Vehicle Borne Improvised Explosive Device (VBIED) fully aware that it will lead to his death and that of others. The explosives are meant to cause maximum destruction and human casualties. The group sanctifies suicide as martyrdom, thereby elevating it to the level

of a sacred duty and obligatory for its members (Bukay, (2006), Afolabi and Yusuf, (2019). It becomes one of its weapons of war against the state. It draws domestic and international attention and achieves its aims of intimidating the society and causing high human causalities and infrastructural destruction (Hassan, (2008).

Beside Ibn Taymiyyah and Abu Muhammad Essam al-Maqdisi, Abubakar Shekau was influenced by other renowned *jihadist* scholars, such as Sayyid Qulb, Anwar al-Awlaki and Abu Bakr Naji. Thus, Boko Haram, under Abubakar Shekau, became a repository for the rebellious ideas of *jihadists* in the Gulf countries. These scholars' massive online and offline messages (books, pamphlets, videos and sermons) are instrumental in inspiring terrorism in the world in general and Nigeria in particular. In spite of Shekau's limited and incoherent understanding of the ideological stands of these scholars, he was fond of randomly referring to and quoting them and other *jihadists* in most of his speeches and mass media outlets, such as videos and YouTube. An Egyptian scholar, Sayyid Qutb (9 October 1906–29 August 1966), who was considered from the post-colonial era to the present as the architect and instigator of radical Islam and an inspirator for violent uprisings (Scott and Mekhennet, 2010; Toth, 2013; Qulb, 1964), has had a great influence on Boko Haram. His books, such as *Fi Zilal-Qur'an* (**In the Shade of the Qur'an**), *Taswir al-Fanni fi al-Qur'an* and *Ma'alim fi at Tariq* (Milestone), became the ideological foundation of what is termed "Qutbism", which laid the platform for the rebirth of the Islamic world based strictly on the Qur'an. Sayyid Qutb was influential to other scholars, such as Anwar Al-Awlaki (21 April 1971–30 September 2011), for his support of violence and the offensive overthrow of government in order to establish an Islamic state. The west sees him as the "most dangerous person who existed in English-speaking Islam" (Hitchen, 2020:88). Thus, Shekau's indiscriminate attacks of schools, mosques, churches and market-places can be linked with Al-Awlaki's recorded *fatwa* and books, such as *Thawãbit 'alã Darb al-Jihad* (**Constants of the Path of Jihad)** (2005) and **44 Ways to Support Jihad** (2009), which justified violence. His website articles and lectures promoted the need for all Muslims to support violent *Jihad* (Shane, 2015). In a 2009 lecture in Pakistan, titled "The State of the Ummah," he sees *Jihad* as obligatory and not recommended or voluntary for Muslims to either participate physically or support it with other means (Meleagrou-Hitchens, 2020; Barclay, 2010; Scott and Mekhennet, 2010; Brachman, 2023). Accordingly, failing to participate is sinful. In the process, Al-Awlaki propagated the killing of a disbeliever, whether he was a combatant or not (Brachman, 2023; Kirkpatrick, 2014; Scott, 2010). According to the dictum, a disbeliever is anyone who disagrees with the tenets of the sect. Shekau was not the only Nigerian influenced by Al-Awlaki's ideological literature. Umar Farouk Abdulmuttalab, who failed in his effort to blow a transatlantic flight through an explosive device hidden in his underwear on December 25, 2009, is a case example. Abdulmuttalab is now serving four consecutive life sentences plus 50 years without the possibility of parole in the United States. Abdulmuttalab met Al-Awlaki in Yemen, where his indoctrination to violently attack "Kuffar" or infidels, was cemented. Al-Awlaki's Islamic theology and extremism propagated through internet outlets have proved to be of great influence on the Islamic State and Boko Haram's extermination of opponents for their version of Islam.

Nevertheless, it was another Islamic ideologue, Abu Bakr Naji's 2004 online text titled *Idarat al-Tawahhush* or *The Management of Savagery*, which has an ideological influence on the Islamic State of Iraq and al-Sham (ISIS) that might have inspired Abubakar Shekau's strategy and battle plan for the weakening of the Nigerian state through the use of guerilla tactics by attacking various weak points and bombing selected sites that were significant and would attract domestic and international attention. This maneuver vexed and exhausted the leadership and weakened the nation. The killing of security men and the kidnapping of school children (such as the 276 Chibok School's girls) destabilize, ridicule and expose the weakness of the state. Through this strategy, members of the group became convinced that the state could be defeated and that the establishment of a caliphate was assured. He urged members to focus on attacking the police and other security forces with the aim of avenging the murder of Muhammad Yusuf and creating chaos and savagery, which will lead to insecurity and the setting up of a caliphate. Such a strategy was expected to shake the security forces' allegiance to the state and attract support from citizens facing pervasive poverty.

Shekau seemed to have studied and adopted these scholars' strategies for *jihad*, whose main pillars, according to their *fatwa*, lectures, texts and social media outputs, are violence, crudeness, terrorism, frightening, kidnapping and massacring people. Thus, one can see such influence when Shekau released a video claiming responsibility for the attack on Giwa Military Barrack in March 2014 and his declaration: "I will slaughter... Kill! Kill! Kill!! Today, our religion is nothing but killing" (Barkindo, 2018:64-65). This

rhetoric and behavior were genocidal and led to targeting and hitting the police and other security forces in their barracks, houses and working places all over Nigeria. During the violent campaign, the group murdered, executed and bombed hundreds of police offices and officers in Maiduguri, Bauchi, Gombe, Yola, Damaturu, Jos, Kano, Kaduna and Abuja. Some were kidnapped, lined up and shot or slaughtered and beheaded. No fewer than 389 police officers died and 450 were injured fighting the group from 2009 to 2022. The police lost 24 barracks and 30 stations (Igwe, 2022). This action was posted on social media outlets to induce fear among citizens and attract international attention. Boko Haram's trademark, as that of ISIS, is slaughtering those identified as the enemies of *al-Dawla*, the caliphate state, and the security forces, which are identified as the main culprits for their role in the death of its leader, Muhammad Yusuf, while under their custody and as an impediment to the establishment of a caliphate.

Suicide bombing is one of the strategies of the group against the police, other security forces, in particular, and the public, in general. The first suicide bombing in Nigerian history was the bombing of the police force headquarters on June 16, 2011. A Boko Haram member drove a car full of explosives onto the premises of the police headquarters, christened Louis Edet House, in Abuja. The aim was to assassinate the then Inspector General of Police, Hafiz Ringim, and kill as many policemen as possible. From that singular action, suicide bombings became the trademark of Boko Haram. The group detonated a car packed with explosives at the United Nations building in Abuja, killing 21 people and injuring many more on August 26, 2011. This was followed by the bombing of the Kano Central Mosques on November 28, 2014. Other suicide bombings killed 35 people in Kaduna, 20 in Kano and 118 in Jos on 8 April 2012, 17 June 2012 and 20 May 2012, respectively. This strategy accounted for most of the casualties from 2009 to 2018. In 2018, for instance, there were 30 suicide bombings in the North East alone, leading to the deaths of 297 people (Campbell and Harwood (2018), Cambell (2020) and Onuoha and Temilola (2015).

The group copied the strategy of other Middle East revivalists and Asian nationalist movements, such as the Liberation Tigers of Tamil Eelan, the Kurdistan Workers' Party (PKK), the Al-Aqsa Martyrs Brigade, Palestinian Islamic Jihad, HAMAS and Al-Qaida, by weaponizing women and children as suicide bombers. Boko Haram used more female suicide bombers by deploying about 468 women and girls in 240 suicide bombings (Campbell, 2020), surpassing any other revivalist and nationalist groups in human history (Onuoha and Temilola, 2015; Kriel, 2017).

The merciless slaughtering, beheading and killing of innocents can be linked to the influence of the first known sect of Islam, the Khawarij/Kharijites (656 AD), that is still active in Oman and some parts of North Africa, such as Tunisia. The group is known for legitimizing violence, killing and confiscating 'infidels' property and being antagonistic to constituted authorities by justifying rebellion. The sect justifies mass murder and spilling blood indiscriminately (Al-Arifi, 2015), as witnessed through bombing mosques, schools and churches or the execution of clerics and over 70 agricultural workers at Zabarmari village, near Maiduguri, on November 28, 2020 (Alfa and Maclean, 2020). In 2012 alone, the group bombed 50 churches, killing at least 366 people. It targeted 23 Islamic clerics and killed 60 people in the process. 74 people were killed in un-Islamic institutions, such as clubs, hotels, etc. (Factsheet Nigeria, (2013)
The appearance of a Khawarij propensity in Shekau and his followers led ISIS to accuse him of being a Kharijite and not a *Salafist.* His indiscriminate killing of innocents, branding them as unbelievers, culminated in his being excommunicated by ISIS and subsequently led to his death through self-suicide (Braji, 2023). Shekau's ill-informed religious wisdom and understanding led to self-glorification, concoction and the misguided interpretation of Islam.

5. Conclusion

For decades, Islamic revivalism has had an impact on the world. The quest for an Islamic state takes several forms. In Pakistan, for example, the Islamization of government was peaceful, thanks to the work of renowned Islamic intellectuals, such as Maudidi, who paved the way for the establishment of the Islamic Republic of Pakistan. Others, such as Iran and Afghanistan, experienced the Islamization of government as a result of violent civil conflicts sparked by Islamic fundamentalists and inflamed by the unsuccessful repression of the Shah regime (in Iran) or Soviet foreign force (in Afghanistan). Other Islamization initiatives, such as those in the Philippines, Iraq, Syria, Somalia, Mali, Niger and Nigeria, have been marred by bloodshed and instability.

However, what this study realized is that murdering or eliminating a leader is never a solution to Islamic revivalism or nationalist uprising. Nor is such an action by the state institution able to bring immediate peace or an end to the conflict. The affected group

often considers such an action as open oppression, thereby providing the stage for militancy, terrorism and the justification of attacking identified state institutions, such as schools as remedies for the wrong done to them. Thus, the expectation that the elimination of leaders would lead to peace becomes a mirage, as more destruction and killing continue.

In the process of avenging the death of its leader and establishment of a caliphate, Boko Haram is influenced by *jihadist* scholars, such as Ibn Taymiyyah, Essam al-Maqdasi, Sayyid Qulb, Anwar al-Awlaki and Abu Bakr Naji. Toward Shekau's end, the Khawarij/Kharijite's philosophy of armed struggle was instrumental in Boko Haram's violence and misguided Islamic revivalism.

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Mind Over Smoke: Transformative Effects of Cognitive Reframing Therapy on Tobacco Smoking Dependency Behaviour among Male Inmates in Correctional Centres in Oyo State

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Abstract. This study investigates tobacco smoking dependency behaviour among male inmates in correctional centres in Oyo State, Nigeria, with a focus on the effectiveness of Cognitive Reframing Therapy (CRT) and the moderating role of educational attainment. While previous research has primarily addressed the prevalence and contributing factors of smoking behaviours in correctional centres, this study emphasises psychological interventions. Employing an experimental design with pretest, posttest, intervention, and control groups, the research utilised a multistage sampling technique across three correctional centres. The Cigarette Dependence Behaviour Scale identified participants exceeding the threshold of tobacco dependency. Twenty-two inmates received CRT in Agodi, and fifteen served as the control group in Ogbomoso. Analysis revealed a significant main effect of CRT on reducing tobacco smoking dependency behaviour ($F2, 41 = 48.40$, $p < 0.05$, $\eta 2 = 0.489$). The intervention group demonstrated a substantial decrease (mean score: 23.45) compared to the control group (mean score: 45.78). Educational attainment alone did not significantly impact the targeted behaviour, but a significant interaction effect was observed between CRT and educational attainment. The findings underscore the efficacy of CRT in addressing tobacco smoking dependency among correctional inmates, providing valuable insights for Clinical and Counselling Psychologists engaged in treating such behaviours.

Keywords: Tobacco Smoking Dependency Behaviour, Cognitive Reframing Therapy, Educational Attainment.

1. Introduction

The study of smoking behaviour has long been a topic of interest in the field of psychology, particularly in understanding the underlying cognitive processes that influence this behaviour. This research is anchored to Cognitive Behaviour Theory, which posits that cognitive processes such as thoughts, beliefs, and attitudes play a crucial role in shaping smoking behaviour. According to this theory, how individuals think about smoking significantly influences their smoking habits and decisions (Beck, 2011). The usage of tobacco has a profound effect on oral and overall wellbeing of an individual. Cigarettes, containing harmful chemicals such as nicotine, hydrogen cyanide, and carboxyhemoglobin, are widely known to have adverse implications for human health. Nicotine, a significant component in cigarettes, is associated with effects like relaxation, euphoria, increased alertness, and motor activity, leading to addiction. The United States Department of Health and Human Services (USDHHS) (2014) highlighted the severe consequences of tobacco use, including cardiovascular diseases, respiratory issues, and a primary focus on cancers, notably lung cancer. Tobacco use is also connected to conditions like gastric ulcers, coronary artery diseases, and cancers affecting the mouth and throat. Nicotine's addictive nature contributes significantly to these negative health impacts, making it challenging for many smokers to quit. According to the 2018 World Health Organization (WHO) (2015) report, over one billion people globally engaged in tobacco use, accounting for more than 11% of global mortality. This usage extends beyond smoking to include approximately 367 million people worldwide using smokeless tobacco.

In African nations like Nigeria, the lack of extensive awareness about the detrimental impacts of tobacco, unlike in regions such as Asia with widespread anti-tobacco campaigns, has potentially contributed to increased tobacco consumption. This limited communication about the risks has led to a false perception of low smoking prevalence, fostering a rise in tobacco use. Studies, such like Nwhator (2012), indicated a substantial increase in tobacco use in Nigeria, reaching approximately 30% among males and 18% among females from the late '90s to the early 2000s. Additionally, research by Desalu, Iseh, Okoloba, Salawu, and Danburam (2010) reported a significant upsurge in tobacco smoking, reaching 7.94% in 2009. Nigeria stands as one of the world's primary consumers of tobacco, with an annual consumption of about 20 billion cigarette packs, equating to roughly $1.5 billion (World Health Organization, 2023). This extensive consumption holds significant economic implications for the country's tobacco trade. Smoking has become deeply ingrained in various social settings and public spaces in Nigeria, spanning from social events, garages, parks, to even corporate environments. To address this mounting issue, the World Health Organization's Framework Convention on Tobacco Control (FCTC) collaborated with the Nigerian government in 2017, resulting in the implementation of the National Tobacco Control (NTC) Act of 2015. This act was specifically crafted to oversee and regulate numerous aspects of tobacco control, including packaging, advertising, and the identification of smoke-free areas.

Despite efforts to address tobacco use, studies by Akaji and Folaranmi (2013) have highlighted a concerning rise in smoking among inmates within correctional facilities. Their research revealed that 120 inmates were smokers in the Enugu correctional facility, and similar statistics were reported across correctional facilities nationwide. Ake (2018) study emphasised the escalating prevalence of smoking behavior in Nigeria, indicating an annual 4% increase in smoking prevalence, which includes correctional inmates. Odedokun (2022) found that substance abuse including the incessant smoking of cigarettes a perpetual challenge in the correctional environment. Further supporting this trend, Onyechi, Eseadi, Umoke, Ikechukwu-Ilomuanya, Obidua, Agu, Nwaubani, Utoh-Ofong, Ncheke, and Ugwuozor (2017) conducted a study on the effectiveness of group cognitive behavior intervention for tobacco smoking among correctional inmates in Nigeria. Their findings underscored the chronic smoking behavior within correctional facilities nationwide, indicating a higher prevalence and compounded effects compared to the general population. This points to a substantial increase in smoking behavior among inmates, drawing attention to the need to tailor interventions within these facilities.

Tobacco smoking within correctional facilities serves several purposes, according to Butler, Richmond, Belcher, Wilhelm, and Wodak (2007). It acts as a form of surrogate currency, symbolises a sense of freedom in the confined environment, fosters social interaction and control, aids in stress management, and provides social comfort. In Nigeria, as highlighted by Akaji and Folaranmi (2013), tobacco use has become deeply ingrained within the correctional system. Kennedy, Sharapova, and Beasley (2016) emphasised that tobacco smoking behavior is not only a challenge for inmates and officials but also a public health concern due to the continual movement of inmates in and out of the correctional system. According to Cropsey, Eldridge, and Weaver (2008), inmates in correctional centres engage in smoking behavior more than the general population, possibly due to limited social activities, boredom, and the absence of access to enjoyable facilities.

The lack of socio-recreational amenities in the correctional environment, as noted by Cropsey and Kristeller (2005), means that inmates lack privileges available to the general public, leading them to use smoking as a means to socialise. Cropsey, Linker, and Wait (2007) suggested that smoking behavior in correctional settings is not confined by age, with a significant proportion of inmates being smokers. They revealed that 70% of young people (adolescents) in juvenile homes regularly engage in smoking. The culture of the correctional environment appears to trigger a high prevalence of smoking behavior, as uncovered by Cropsey, Jones-Whaley, and Jackson (2010), who found that even non-smokers before incarceration often start smoking during their time in correctional facilities. Addressing smoking behavior within the correctional environment is crucial, yet promoting smoking cessation in this setting may prove challenging due to social inadequacies and the high risk of relapse.

Cognitive reframing therapy is proposed as a potential psychotherapeutic strategy for addressing smoking behavior, especially among inmates in correctional facilities. This therapeutic approach specifically addresses the triggers and underlying issues related to smoking in individuals whose thoughts may be particularly influenced by boredom and a lack of meaningful work or social engagement. Huppert (2009) highlights the techniques involved in cognitive reframing therapy, focusing on identifying and mitigating irrational thought patterns. These

techniques include recognizing and labeling maladaptive thoughts, identifying cognitive errors, recording thought patterns, employing questioning and guided imagery, reattribution, understanding personal meanings, and making rational adjustments. The therapy techniques have been meticulously designed and rigorously tested through experimental investigations, emphasizing its reliability. Cognitive reframing therapy has been effectively used for diverse populations, particularly those experiencing conditions related to cognitive health, such as anxiety and depression. Sometimes, researchers combine cognitive reframing therapy with other psychotherapeutic approaches to evaluate their combined impact on specific conditions. Corey (2009) points out that cognitive reframing therapy aims to evaluate and challenge irrational beliefs, identifying triggers for irrational thoughts by examining psychological disturbances and developing strategies to address them. This therapy shows promise in modifying unhealthy thought patterns and exploring triggers that lead to irrational thoughts, especially in the context of managing smoking behavior in correctional settings

Cognitive reframing therapy has been examined for its effectiveness in various health-related behaviors, including tobacco smoking. Skyes and Marks (2001) conducted a meta-analytical investigation to assess the viability of cognitive reframing therapy among individuals who smoke. Their study revealed that participants exposed to cognitive reframing interventions showed significant abstinence from smoking. They further noted that this therapy was particularly successful in reducing tobacco smoking behavior among individuals with a low socio-economic status. An experimental investigation conducted by Webb, Reis, Carey, Ybarra, and Baker (2010) observed a notably higher rate of abstinence in a cognitive reframing intervention group compared to a control group. Webb et al. (2010) also highlighted the high effectiveness of cognitive reframing intervention in managing smoking behavior, especially within the African population. Despite the potential effectiveness of cognitive reframing therapy in reducing tobacco smoking behavior, one critical factor that could moderate its effectiveness is the level of educational attainment. This suggests that the success of the therapy in addressing smoking behavior might be influenced by an individual's educational background.

Educational attainment represents an individual's level of educational achievement, spanning primary, secondary, or tertiary education. It is commonly believed that smoking behavior is more prevalent among individuals with lower educational levels. Cutler and Lleras-Muney (2006) suggest that higher education often leads to healthier lifestyles and better health due to an understanding of the consequences of unhealthy living. However, the direct cause-and-effect relationship between education and healthy living remains inadequately understood. Regarding smoking behavior, Koning, Webbink, and Marti (2010) highlight that an individual's level of education influences their decision to quit smoking. Their research emphasises that higher educational attainment positively influences the choice to abstain from smoking. Numerous studies have explored the connection between educational attainment and tobacco smoking behavior. For instance, research conducted by Grimard and Parent (2007) and Walque (2007) examined this relationship. While these studies didn't specifically address the influence of educational attainment on tobacco cessation, their findings suggested that exposure to quality education reduces the likelihood of significant involvement in smoking behavior.

To mitigate the likelihood of health crises within correctional facilities, it is crucial to minimise unhealthy behaviors, especially considering the insufficient healthcare delivery in these settings. Discouraging habits like smoking becomes imperative. This study underscores the necessity to assess the impact of cognitive reframing therapy on tobacco smoking dependence among correctional inmates to enhance their physical, psychological, and mental well-being. The goal is to promote a healthier environment within these facilities and improve the overall health and wellness of the inmates.

1.1 Purpose of the Study

The study examined the impact of Cognitive Reframing Therapy on the management of tobacco smoking dependency behaviour among male inmates of correctional centres in Oyo State. Specifically, the study:

- Investigated the primary effects of cognitive reframing therapy on the tobacco smoking dependency behavior of male inmates in correctional centres in Oyo State.
- Evaluated the influence of educational attainment on the tobacco smoking dependency behavior of male inmates in correctional facilities in Oyo State.
- Assessed the interaction of cognitive reframing therapy and educational attainment on the tobacco smoking dependency behavior of male inmates in correctional centres in Oyo State.

1.2 Hypotheses

H01: There is no significant main effect of the treatment on tobacco smoking dependency behavior among inmates
H02: There is no significant main effect of educational attainment on tobacco smoking dependency behavior among inmates.
H03: There is no significant interaction effect of treatment and educational attainment on tobacco smoking dependency behavior among inmates.
Methods

2. Research Design

This research adopted a pre-test, post-test, control, and experimental design. Participants were randomly divided into either the cognitive reframing therapy group or the control group, considering their educational attainment levels (primary, secondary, and tertiary education) as a moderating factor. In the experimental group, participants were exposed to both pre-test evaluations and received therapeutic interventions involving cognitive reframing therapy. Subsequently, a post-test was administered to this group to assess the impact of the therapy. Conversely, participants in the control group though underwent pre-test and post-test measures, only received general knowledge about the health implications of tobacco without experiencing the specific therapeutic interventions provided to the experimental group.

2.1 Population

The study specifically involved male inmates who were dependent on cigarettes and were convicted within correctional centres in Oyo State. The rationale behind the selection of convicted inmates was to ensure their consistent and complete participation in the sessions. Inmates awaiting trial might face release, transfer to other facilities, or could be occupied with court appearances during the intervention program, potentially affecting their involvement. Additionally, male inmates were exclusively chosen for the study due to limited access to female inmates within these correctional facilities.

2.2 Sampling Procedure

The study involved a total of thirty-seven (37) participants selected through a multistage sampling technique. The first stage included the enumeration of the three correctional centres in Oyo state: Agodi, Abolongo, and Ogbomoso. A simple randomisation process was employed to select Agodi and Ogbomoso correctional centres for the experimental condition and control group, respectively.

In the second stage, snowball sampling was utilised to identify smokers among the inmates, based on recommendations made by correctional officials. As a result, 101 inmates were recommended in Agodi Correctional Centre and 72 in Ogbomoso Correctional Centre.

During the third stage, the Cigarette Dependence Behaviour Scale was administered by the researchers to the inmates. This was done to identify those who were dependent on tobacco smoking. Inmates who scored 50 points or above on the scale were deemed eligible for participation. Using this screening tool, 22 inmates from Agodi (CRT) and 15 inmates from Ogbomoso (Control) were selected.

2.3 Instrumentation

The study employed a combined questionnaire integrating standardised instruments. These instruments were adapted to align with the research objectives and hypotheses. The primary instrument used was the Cigarette Dependence Scale (CDS-12), a shortened version developed by Etter (2020). Alongside this, the Cigarette Dependence Behaviour Scale by Etter, Houezec, and Perneger (2003) was utilised for participant screening. To ensure clarity for participants who could not speak English, the questionnaire was translated into the Yoruba language by the Department of Linguistics and African Studies at the University of Ibadan. Detailed sections providing information about the instruments used in the study are presented below.

2.4 Cigarette Dependence Scale

The Tobacco Smoking Dependency Behavior of the participants was evaluated using the Cigarette Dependence Scale (CDS-12) developed by Etter (2020). This self-report tool aimed to assess respondents' smoking behavior, featuring items like "For me, quitting smoking for good would be very possible" and "After a few hours of smoking, I feel an irresistible urge to smoke." The researchers adapted the scale to a five-point Likert response format, ranging from "Strongly Disagree" (SD) to "Strongly Agree" (SA). The authors of the instrument confirmed its construct validity, showing good internal consistency with values ranging from .78 to .85, determined using the Cronbach alpha reliability technique. To ascertain the reliability of the CDS-12,

a pilot study was conducted with a sample of 20 convicted inmates in a correctional centre (separate from the main study). The Cronbach Alpha reliability technique yielded a value of 0.82, indicating a strong internal consistency.

2.5 Cigarette Dependence Behaviour Scale

The study used the Cigarette Dependence Behaviour Scale developed by Etter, Houezec, and Perneger (2003) as the screening instrument. This self-report tool is designed to assess both the physiological and psychological dependence of smokers on cigarettes. Adapted to a five-point Likert response format, ranging from "strongly disagree" (SD) to "strongly agree" (SA), the CDS-17 reported a Cronbach's alpha reliability value of 0.84, indicating strong internal consistency. To validate the adapted scale reliability, the researchers conducted a pilot study with 20 regular smokers in a correctional centre, not part of the main study. The Cronbach Alpha reliability technique yielded a value of 0.86, confirming a robust internal consistency within this specific context.

2.6 Procedure for Administration

The researchers initiated the study process by obtaining a letter of introduction from the Department of Counselling and Human Development Studies. Subsequently, ethical approval was secured from the ethical committee of the University of Ibadan/University College Hospital. Following this, the researchers approached the correctional authorities to introduce the study and requested approval for a designated schedule of one day per week, for two hours over seven weeks from the authorities of the chosen correctional (custodial) centres. Additionally, visits were made to these correctional centres to acquaint the researchers with the facilities and potential participants. During these visits, the researchers sought the willingness of the participants to be part of the experiment. Before the study commenced, the researchers provided training for two research assistants from each facility. These assistants were prepared to support and facilitate the investigative process.

The investigation consisted of four distinct stages:

- Initial activities before the intervention sessions involved screening potential participants and categorizing them into the intervention and control groups. Tobacco-dependent inmates were oriented to the program and provided with a consent form. Two correctional officers were also trained to support the investigation.
- The pre-test phase included collecting data using the Cigarette Dependence Scale (CDS-12) questionnaire.
- The intervention phase encompassed the experimental group receiving Cognitive Reframing Therapy for six weeks. These interactive sessions, lasting a minimum of two hours daily, were aimed at treating tobacco dependence. The control group, however, did not receive treatment but was educated about the implications of tobacco smoking.
- The post-test was administered to the control group after the experimental group completed their treatment.

To ensure accessibility for non-English speaking inmates, the consent form, questionnaire, and treatment materials were translated into Yoruba. Furthermore, to maintain participant interest, the researchers provided incentives such as refreshments, toiletries, and food items to engage and sustain the participants' attention.

2.7 Inclusion Criteria

The study recruited participants based on the following criteria:

- Having been convicted by the criminal justice system and not being under trial.
- Voluntary participation without any form of coercion.
- Providing consent by signing a form before joining the study.
- Approval from the authorities to participate in the study.
- Identification through an initial screening test indicating dependence on smoking behavior.
- Having a remaining sentence of at least six months at the commencement of the intervention.

2.8 Control of Extraneous Variables

To mitigate the impact of extraneous factors, strict adherence was maintained through the following measures:

- Strict compliance with the outlined inclusion criteria.
- Random selection of participants for placement in the intervention and control groups.

- Utilization of the Analysis of Covariance (ANCOVA) statistical tool.

2.9 Method of Data Analysis

The data was analysed using the Analysis of Covariance (ANCOVA) at 0.05 level of significance. This statistical method was utilised to evaluate the primary and interaction effects of the independent and moderating variables on the dependent variable, specifically the tobacco smoking dependency behavior in this study.

3. Results

Participants Demographic Distribution Table Presentation

Table 4.1: Frequency Distribution showing the Gender of Participants in the Study

		Frequency	Percent
Valid	Male	37	100.0
	Female	0	0
	Total	37	100.0

From table 4.1, it showed that all the participants 37 (100%) in number were male.

Table 4.2: Frequency Counts Showing the Age Distribution of the Participants

		Frequency	Percent
Valid	20 to 25yrs	12	32.43
	26 to 29	7	19
	30yrs and above	18	49
	Total	37	100.0

Table 4.2 illustrates that among the 37 participants, 12 individuals (32.43%) were aged between 20 to 25 years. Seven participants (19%) fell within the age range of 26 to 30 years, while the remaining 18 individuals (49%) were 30 years and older.

Table 4.3: Frequency Counts Showing the Educational Attainment of the Participants

		Frequency	Percent
Valid	FSLC	6	16.21
	SSCE	14	37.85
	Tertiary	17	45.94
	Total	37	100.0

Table 4.3 displays data related to the 37 participants. Among them, 6 individuals (16.21%) held FSLC qualifications, 14 individuals (37.85%) possessed SSCE qualifications, and the remaining 17 participants (45.94%) had attained tertiary education.

Hypothesis One: There is no significant main effect of cognitive reframing therapy on tobacco smoking dependency behavior of inmates.

To test this hypothesis, the researchers utilised Analysis of Covariance (ANCOVA). This statistical analysis aimed to assess the differences between the experimental and control groups. A comparison was conducted using the post-test scores while considering the pre-test as a covariate. The summary of the ANCOVA findings is presented in Table 4.4.

Table 4.4: Summary of the main and interaction effect of treatment and moderator on tobacco smoking dependency behavior of inmates.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10688.656[a]	16	668.041	10.239	.000	.619
Intercept	1235.443	1	1235.443	18.935	.000	.158
Covariate	124.727	1	124.727	1.912	.170	.019
Treatment	6315.790	2	3157.895	48.400	.000	.489
Educational Attainment	184.849	2	92.424	1.417	.247	.027
Treatment * Education	1005.950	4	251.487	3.854	.006	.132
Error	6589.784	41	65.245			
Total	140684.000	58				
Corrected Total	17278.441	57				

a. R Squared = .619 (Adjusted R Squared = .558)

The outcomes presented in Table 4.4 demonstrated a noteworthy main effect of cognitive reframing therapy on the tobacco smoking dependency behavior of inmates ($F2, 41 = 48.40$, $p < 0.05$, $\eta2 = 0.489$). This contrasts with the non-significant pre-test differences between the groups, aligning with the anticipated expectations. Based on these results, it is evident that participants exposed to cognitive reframing therapy showed more significant reductions compared to those in the control group who received no treatment. Thus, the first hypothesis positing no substantial mean group difference is rejected. Conversely, the alternative hypothesis stands validated. In conclusion, cognitive reframing therapy proved to be effective in reducing tobacco smoking dependency behavior among inmates. This highlights a substantial main effect of treatments in reducing tobacco smoking dependency behavior among these participants.

Hypothesis Two: There is no significant main effect of educational attainment on tobacco smoking dependency behaviour of inmates.

The findings in Table 4.1 corroborate the null hypothesis outlined earlier, as the results verified no significant main effect of educational attainment on tobacco smoking dependency behavior among inmates ($F2, 41 = 1.417$, $p > 0.05$, partial $\eta2 = .027$). The partial $\eta2$ value of .027 denotes that educational attainment accounted for a statistical change of 2.7% in tobacco smoking dependency behavior among inmates.

This outcome led to the acceptance of the null hypothesis, signaling that there was no noteworthy main effect of educational attainment in reducing tobacco smoking dependency behavior among the inmate population. Subsequently, as no significant main effect was established, post-hoc analysis was not conducted

Hypothesis Three: There is no significant interaction effect between treatment and educational attainment on tobacco smoking dependency behavior among inmates, the findings in Table 4.1 deviated from this null hypothesis. They unveiled a significant interaction effect ($F(4, 41) = 38.54$, $p < 0.05$, partial $\eta2 = .132$) between treatment and educational attainment. The partial $\eta2$ value of .132 highlighted a 13.2% statistical change in tobacco smoking dependency behavior among inmates due to this interaction.

Hence, the null hypothesis was rejected, confirming the existence of a significant interaction effect between treatment and educational attainment concerning the tobacco smoking dependency behavior of inmates.

4. Discussions

Addressing the potential effectiveness of Cognitive Reframing Therapy (CRT) in managing inmates' tobacco smoking dependency behavior is a starting point when considering a rationale for this outcome. CRT operates on the principle that human thoughts, feelings, and behaviors are interconnected. Changing these thoughts can lead to changes in feelings and behaviors. Notably, CRT targets the underlying causes of tobacco smoking, such as stress, anxiety, and boredom, potentially reducing the urge to smoke. Moreover, this therapy equips individuals with coping skills and strategies to address cravings and the urge to smoke. It also assists in recognizing and challenging negative thoughts and beliefs associated with smoking. The primary objective is to challenge the belief that smoking is essential for stress management and replace these negative thoughts with more positive and helpful ones.

In addition to aiding individuals in CRT, techniques for relaxation and distraction are cultivated to effectively manage cravings and resist the urge to smoke. Specifically focusing on correctional inmates in this study, cognitive reframing therapy may have proven effective for several reasons. Primarily, inmates in correctional facilities often grapple with heightened levels of stress and anxiety, contributing significantly to their tobacco smoking habits. Assisting inmates in coping with these emotions reduces the likelihood of their involvement in smoking. Stress and anxiety among incarcerated individuals stem from various sources, including separation from family, relationships within the inmate community, experiences of bullying, physical assault, exposure to violence, and the loss of personal autonomy. These conditions notably increase the inclination for smoking among inmates. Cognitive reframing therapy's goal is to help inmates manage stress and anxiety by guiding them in recognizing and challenging negative thoughts, using relaxation techniques, and discovering healthier coping mechanisms. The restricted access to medication and alternative therapeutic treatments in correctional facilities might be another explanation for the investigation's outcome. In these environments, the availability of such treatments for tobacco smoking is limited. Therefore, cognitive reframing therapy and interventions led by external parties could be the only viable option for inmates seeking to quit smoking. This lack of alternatives may drive their motivation for

the program and influence their active participation in achieving desired outcomes.

The importance of CRT intervention lies in its capacity to aid inmates in managing cravings and preventing relapses. Establishing a positive therapeutic relationship is essential for the therapist-client dynamic and for attaining desired outcomes. Therapists in this scenario deliberately fostered positive relationships with the inmates, providing an environment of acceptance and freedom distinct from their interactions with correctional officials. This approach encouraged inmates to voice their negative automatic thoughts and cognitive issues contributing to increased tobacco smoking behaviors. This cultivated relationship also promoted adherence to treatment recommendations, such as practicing relaxation techniques and avoiding triggers for tobacco smoking. Each of these elements likely contributed to the effectiveness of the intervention. The effectiveness of cognitive-behavioral therapy (CBT) in addressing smoking behavior among inmates in correctional facilities was supported by the research conducted by Cope, McNamara, Najman, Williams, and Paul (2016). Their study involved 150 male inmates aged 18 and older, all tobacco smokers. The results revealed that those receiving CBT experienced substantial reductions in tobacco cravings, smoking frequency, and nicotine dependence in comparison to the control group.

McCrady, Vogel, Feil, Flynn, Farrelly, Lewis, and Montoya (2018) conducted a study that emphasised the effectiveness of Cognitive-Behavioral Therapy (CBT) in reducing tobacco smoking among individuals reintegrating into the community after being in prison. The findings revealed a significant decrease in tobacco smoking rates within the CBT group during the three-month follow-up. In a different study by Goyal, Menon, Goya, Passi, Gupta and Gupta (2020), they explored the effect of a CBT-centreed program for smoking cessation among cancer patients. The study recorded the effectiveness of the intervention. Furthermore, participants in the intervention group showed significant decreases in their dependency on nicotine and substantial enhancements in their overall quality of life. The intervention's effectiveness remained consistent for both men and women, irrespective of the presence of mental health disorders. However, it was noted to be less effective for individuals who had experienced childhood abuse in their past.

Hypothesis 2 highlights that the findings demonstrate an absence of a significant impact of educational attainment on the tobacco smoking dependency behavior of inmates, thus confirming the acceptance of the null hypothesis. This outcome requires justification. Conventional education tends to emphasise academic subjects and might not offer the specialised knowledge and skills necessary for smoking cessation. Educational levels, whether at primary, secondary, or university degrees, primarily emphasise academics rather than specific health education, particularly information related to smoking. Despite the importance of formal education, it might lack information regarding smoking-related health risks or effective strategies for quitting smoking. For instance, a secondary school education might not cover crucial details about smoking-related health risks or techniques for smoking cessation. In the absence of this specific knowledge, individuals may struggle to apply their academic learning to their current circumstances regarding smoking behavior.

Education, even at high levels like doctors, academicians, and professors, doesn't always deter individuals from engaging in smoking behavior or becoming dependent on cigarettes. Knowledge, while influential, isn't the sole factor determining behavior. External factors like environment, emotions, and established habits also play a crucial role. Despite understanding the health risks, some individuals find it hard to quit due to stress, using cigarettes as a coping mechanism. Others might have formed a deep-seated habit of smoking, making it tough to break. In essence, mere awareness of the dangers of smoking doesn't ensure behavioral change. This may explain why education didn't significantly impact the smoking habits of inmates, even those highly educated. Education might not fully address the root causes behind smoking behavior. Beyond immediate factors like stress or boredom, deeper underlying issues might fuel this behavior. Some inmates, dealing with mental health issues like anxiety or depression, rely on smoking as a coping mechanism. Others might use smoking to cope with past trauma or abuse, which can be challenging to address, regardless of one's educational background. Addiction, a potent force, poses a significant challenge. Even those well-educated about smoking's risks and equipped with cessation tools may struggle due to addiction. It is a chronic disease altering brain function, making overcoming it difficult. When addressing smoking habits, it is crucial to address both the physical and psychological aspects of addiction, acknowledging the immense challenge faced even by highly educated individuals fully aware of smoking's dangers. Educational attainment can impact knowledge acquisition. Even if inmates learned about smoking health risks or cessation strategies during their schooling, applying this knowledge within the

correctional setting might have been limited. Inmates usually lack access to smoking cessation aids or counseling, potentially not even aware of these strategies. Consequently, their formal education might not have adequately equipped them to manage their smoking behavior without the practical opportunity to do so. Quitting smoking is challenging and requires support from friends and family. However, inmates often lack these connections while incarcerated. Their restricted ability to visit or communicate regularly with loved ones results in a lack of external support. As a result, regardless of their educational level, inmates may find it difficult to sustain the motivation for smoking cessation.

Dzakula, Nash, and Wells (2020) examined the impact of higher education on smoking cessation by comparing the smoking behavior of educated individuals with those who had less education. Their findings indicated that individuals with a college degree were significantly less inclined to quit smoking compared to those with a high school diploma or lower education. Surprisingly, the odds of quitting were 30% lower for smokers holding a college degree, a consistent trend across various age groups, races, and genders. Ultimately, the study concluded that obtaining a college degree doesn't significantly increase the odds of quitting smoking. Saba, Aveyard, Hacking, Barr, Aboumatar, Bell, and Mant (2019) conducted a systematic review of over 200 studies on behavior change. They assessed the influence of education on smoking behavior using the Theoretical Domains Framework, which considers 14 factors that can impact behavior change. The study revealed that motivation, social support, and environmental factors played a more influential role in changing behavior compared to education alone. Additionally, when education was combined with other factors such as feedback or incentives, it was found to be more effective in altering behavior.

The study revealed a noteworthy interaction effect between treatment and educational attainment, prompting the third null hypothesis to be rejected. This discovery could be significant for several reasons. Cognitive Reframing Therapy (CRT) might have proven particularly effective for individuals with higher educational attainment. This method involves identifying and challenging negative thoughts and beliefs. Those with advanced education tend to possess more experience and knowledge in critical thinking and logic, which could make them better at recognizing and confronting negative thoughts. Furthermore, their heightened level of education might lead to increased self-awareness, making them more inclined to question their own beliefs, potentially making CRT more effective for this cohort.

Educational attainment likely significantly interacted with the treatment on the tobacco smoking behavior of inmates due to various reasons. Education is instrumental in enhancing inmates' overall health literacy, enabling a better understanding of smoking's health risks and the advantages of quitting. This elevated health literacy might have resulted in their increased focus during interventions. Furthermore, education can expand an inmate's social support networks, providing resources and motivation for quitting smoking. Psychological interventions, such as counseling, heavily rely on the social dynamic between therapists and clients. Inmates with higher educational attainment tend to be more curious, articulate, and ready to showcase their intellectual acumen. This trait might have exposed them to more knowledge and provided an environment conducive to discussing their experiences and challenges in quitting smoking.

Education level, in general, might have acted as a moderator influencing the effectiveness of treatments by impacting the inmates' grasp of therapeutic instructions. For instance, a higher educational background could make it easier for inmates to comprehend and adhere to specific treatment instructions. Additionally, it might enhance their motivation and determination to consistently adhere to the treatment plan. Consequently, inmates with higher educational attainment could potentially derive more significant benefits from treatments compared to those with lower educational backgrounds

Jones, Laumann, Belkin, Middleton, Emery, Horrigan, and Hogue (2021) investigated the mediating effect of educational attainment on smoking cessation interventions among detainees. Education was found to significantly mediate the treatment's impact on smoking behavior. In a related study by Saltsman, Escamilla, Foulds, O'Connor, Skinner, Kerr, and Lando (2022), a randomised controlled trial observed the moderation effect of educational attainment on a smoking cessation intervention among veterans. This study revealed that the intervention had a more pronounced effect in promoting smoking abstinence among veterans with secondary education or lower, compared to those with higher education.

5. Recommendations

The study’s outcomes suggest the following propositions for consideration:

Raising Awareness of Cognitive Distortions and Smoking Behavior: Inmates' understanding of the link between cognitive distortions and their smoking habits is vital. Many may lack awareness or skills to identify and alter these patterns of thought. Incorporating education and training on cognitive distortions within smoking cessation programs can empower inmates with the necessary skills to recognise and modify these distortions.

Integration of Cognitive Reframing Therapy (CRT) for Counselors and Psychologists: Counselors and clinical psychologists could benefit from integrating Cognitive Reframing Therapy (CRT) into their professional practice. CRT can aid individuals in identifying and altering cognitive distortions associated with smoking behavior. This approach is particularly beneficial for individuals who may struggle to identify or modify these distortions independently.

Protection of Non-Smoker Inmates: To safeguard non-smoker inmates, it is advisable for correctional authorities to designate specific smoking areas within the facility. Additionally, implementing a policy that mandates inmates who smoke to shower and change clothes after smoking can reduce the risk of third-hand smoke exposure. Non-smoker inmates exposed to secondhand smoke should receive additional support, including access to counseling and medical care.

Exploration of Combined Psychotherapy and Medication for Nicotine Addiction: Investigating the potential benefits of combining psychotherapy with medication for treating inmates' nicotine addiction is crucial, particularly in environments like Nigerian correctional facilities where adequate medical and social resources may be limited due to economic and political constraints.

6. Conclusion

A comprehensive approach is necessary to effectively mitigate the broad-reaching consequences of smoking behavior within society. Research into tobacco smoking behavior is crucial due to its pervasive health risks. The multifaceted nature of this challenge demands attention from stakeholders who must address a range of contributing factors, spanning from socioeconomic influences to individual and systemic variables.

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Investigation of Socio-Demographic Factors on Mental Health of Women in lbadan Metropolis

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Abstract. Mental health problems are very rampant among women nowadays because of family stress and lack of adequate protection for women due to certain cultural and religious practices. Mental health problems encompass aggression, depression, suicide intention, loneliness and mental illness. Many studies have identified various socio-demographic factors as predictors of mental health of women but sufficient studies have not been cited to have been conducted in Ibadan. Therefore, this study investigated socio-demographic factors on mental health problems of women in Ibadan. Descriptive research design of correlation type was adopted for the study and the purposive sampling technique was deployed to select 250 women who reported mental health issues of depression, and anxiety as a result of their marital relationships with average age of 40.7 years. A structured questionnaire on Mental Health Scale (r=0.78) was used to collect data from the respondent. Multiple regression and Pearson product moment were used for data analysis. The results show that there is joint contribution between the independent variables: age, marital duration, family type, and nature of marriage and the dependent variable (mental health of women) ($F(4, 184) = 5.02$; Adj $R^2 = 0.079$; $p < 0.05_{.001}$) and accounted for 8% of prediction and in the relative contribution, family type ($\beta = 0.168$; $t = 2.341$; $p < 0.05$ made the most contribution to mental health problems of women followed by nature of marriage ($\beta = 0.214$; $t = 2.974$; $p < 0.05$) while age ($\beta = 0.057$; $t = 0.771$; $p > 0.05$ and marital duration ($\beta = 0.092$; $t = 1.253$; $p > 0.05$) did not contribute to mental health problems of women. It is recommended that stakeholders such as marriage counsellors, health workers and social workers and ministry of women affairs should push for more aggressive counselling on how to reduce mental health problem among women in our society.

Keywords: Socio-demographical factors, mental health, women in Ibadan.

1. Introduction

Mental health is a multi-layered period of overall well-being, influenced by a myriad of socio-demographic factors. Women, in particular, experience distinctive encounters and stressors that may impact their mental health upshots. The mental health of women's physical and psychological well-being is unfavorably affected by violence against this gender in the short, medium, and long terms (Oram, Khalifeh and Howard, 2017). These pose serious concerns for societies and communities at large. Understanding these socio-demographic determinants is crucial for developing effective intervention strategies and support systems tailored towards the needs of women. The intricate interplay between socio-demographic factors and women's mental health has gathered increasing attention in recent years.

It is essential to look more closely at how differences in the way women are treated, so apparent that the way women are ranked in the gender development may affect their mental health. Evidence on the social factors and women's social position in the workplace,

society and in politics affect their mental and emotional well-being and this call for the development of a feasible model of women's mental health support. Additionally, this issue and variations in the level of gender development suggest that these social factors are open to change as well as adjustment. Women, as a demographic group, face unique challenges and experiences that can significantly impact their mental well-being. Socio-demographic factors such as education, income, employment status, marital status, ethnicity, and access to healthcare services play crucial roles in shaping the mental health outcomes of women (Kuhlmann, Galavotti, Hastings, Narayanan, and Saggurti, 2017)

Women, as a demographic group, face unique challenges and experiences that can significantly impact their mental well-being. Socio-demographic factors such as education, income, employment status, marital status, ethnicity, and access to healthcare services play crucial roles in shaping the mental health outcomes of women (Kuhlmann, Galavotti, Hastings, Narayanan, and Saggurti, 2017).

Mental health, to many, is when someone becomes insane or needs spiritual interventions whereas it is not. Mental health is a state of well-being in which an individual recognizes their own competencies, can work productively, can handle the normal stresses of life, and is able to make a meaningful contribution to his/her community. Taking a look at Africans' mental health currently, the situation remains ominous, and has not been worthwhile. The ratio of an Africa health worker to patience is very low (1.4) mental health workers for every 100, 000 people. This is low as it is in the universal average of 9 workers per 100, 000 people (WHO, 2015). This difference, in addition to the few number of practicing psychiatrists, is a major concern. The World Health Organization (1986) construes health as 'a positive concept emphasizing social and personal resources, as well as physical capacities. A state of good mental health is therefore characterized with feelings of happiness, positive affect and sense of mastery over the environment (Lamers, Westerhof and Bohlmeijer, 2011). Having a good mental health does not mean one cannot be sad, unwell or angry and this is a measure of a completely lived life (Lamers, Westerhof and, Bohlmeijer, 2011). The World Health Organization has always emphasized three concepts when defining Mental Health and these are: social well-being, emotional well-being and psychological well-being. The absence of these three concepts can alter an individual's mental health. A stable mental health is needed to function maximally at home, work and in social settings; unstable psychological well-being may not thrive and function effectively.

The Public health Agency of Canada (2006) defines mental health as the capacity to feel, think and perform in ways that enrich our ability to appreciate life and handle the encounters faced. It is a state of affirmative, emotional, and spiritual well-being that complements the meaning of equity, social justice, culture, interconnections as well as personal dignity. Women are essential part of the population and are considered to be productive and home-makers. These essential creatures of God deserve a good life and stable psychological well-being. Their health is not supposed to be compromised in all ramification, women are entitled to holistic and good quality of life. Sussan and Meghan (2022) consider women's health to be physical, mental, as well as social well-being, and it is a broad category of population's health, women's health, like all human health is structured and planned.

Women's population make up in Nigeria is 49.99 per cent of the population. Meanwhile, Nigeria's population's estimate is over 211 million in 2011. This indicated that the population of the women is sizeable compared with men's population which is 50.01 percent (NBS, 2023). By these figures, women deserve healthier life and social well-being. This position is further confirmed by the Beijing Platform for action in 1995 in which women are entitled to the utmost degree of physical and mental health. This platform's proposition makes it viable and essential for women to relish their lives and well-being, and necessarily project their ability to involve in private and public responsibilities (BPA, 1995). National Nutrition and Health Survey, (2018) emphasized that women health should be in good condition if they are to reach their maximum potentials which include mental health, healthy eating and living, sexual and reproductive rights (NNHS, 2018)

Researchers such as Abdi, Shojaei and Mahmoodi, (2021) have shown that women's population is sizeable in any society and they play various social and economic roles which are at the core of ensuring and maintaining peace at both the home front and at the communities. Special attention should therefore be given to women's mental health as a vulnerable group in the society. Social demographic factors of mental health involve the situation, in which people are born, grow, live, and work. These factors are unavoidable and at the same time impact the mental health of people. The age, family type, nature of marriage are specific context which affect the mental health issues of women and may at the same time cause lower productivity (Loreto, Azevedo, da Silva, Malloy-Diniz, Ornell, and Trés, 2021). Women are confronted with series of stressors as they advance in age. Studies show higher level of stress is more pronounced and

found in women in advanced age compared to younger counterparts because of the increase in the family responsibilities and upbringing of the children who are in their toddler age and needs more attention (Shindaye & Patel, 2010).

Women are becoming more vulnerable to mental health issues as a result of low economic status and struggles. (Sathyanarayana & Manjunatha, 2019). Particularly women in lower socioeconomic status are in constant struggle to make their ends meet. The study of Tarasuk, (2001) alluded that poverty has been reported to aggravate mental health among women. Additionally, low socioeconomic status, low-income job as well as psychological unrest coupled with home-front work such as nurturing of children, house-chores also constitute women's vulnerability to mental illness. According to Vaingankar, Subramaniam, Abdin, Picco, Phua and Chung (2013) education can improve the psychological well-being and socio-economic status of people. Hence, educated women will have an improved self-esteem, socio-economic status and this will impact positively on the mental health. There is need to review a mental health theory to understand the complexity of mental health and illness.

The diathesis-stress model, sometimes referred to as the vulnerability stress model, is a psychological theory that aims to explain how a pre-dispositional vulnerability, the diathesis, and stress from life experiences interact to generate a condition or its trajectory. Diathesis involves elements that are genetic, psychological, biological, or environmental in nature (lngram & Luxton, 2005). Individuals vary greatly in their vulnerabilities to the onset of disorders (Ormel, Jeronimus, Kotov, Riese, Bos, & Hankin, 2013). The diathesis, or predisposition, influences how the person reacts to stress. An occurrence or sequence of events in life that upsets a person's psychological balance and hastens the onset of a disorder is referred to as stress (Oatley, Keltner, & Jenkins, 2006). The diathesis-stress model studies how biological or hereditary characteristics (diatheses) combine with external factors (stressors) to cause disorders like depression, anxiety, or schizophrenia. Many people value the Diathesis-Stress Model's comprehensive approach to mental health. It emphasises how crucial it is to consider environmental influences and life experiences in addition to genetic predispositions when trying to understand, prevent, and treat mental health disorder. This paradigm provides insights into the multifactorial character of a wide range of disorder, such as substance abuse, anxiety, schizophrenia, depression, and anxiety. Theodore, (2020) found that this model has been restructured in recent years to accommodate protecting factors. The restructured model is on occasion termed the stress-vulnerability-protective factors model. Diathesis-stress model may be useful for women who are at risk of having socio-demographic issues or mental health illness.

1.1 Statement of Problem

Socio-demographic factors have had a lot of negative impact on women's mental health. Despite the global recognition of mental health as a critical aspect of overall well-being, women in many developing countries, including Nigeria, face significant barriers to achieving optimal good mental health outcomes.

These barriers are not only rooted in the healthcare system's limitations but also in the socio-demographic realities of these women. In Ibadan Metropolis, rapid urbanization, changing social dynamics, economic pressures, and entrenched gender roles potentially exacerbate mental health issues among women. However, there is a gap in the literature regarding how specific socio-demographic factors influence the mental health of women in this urban context. Understanding these influences is crucial for developing targeted interventions that address the unique challenges faced by women in Ibadan.

This research seeks to fill this gap by investigating the socio-demographic factors affecting the mental health of women in Ibadan Metropolis, with the aim of informing policy, practice, and future research.

1.2 Objectives of the Study

The following specific objectives were achieved in the study. The objectives are to:

- identify the key socio-demographic factors influencing the mental health of women in Ibadan Metropolis;
- examine the relationship between these socio-demographic factors and the prevalence of mental health issues among women in Ibadan; and
- determine the contribution of socio-demographic factors to women's mental health of women in Ibadan.

1.3 Research Questions

Research Question One: What is the joint contribution of age, marital duration, family type, and Nature of marriage to mental health of women in Ibadan metropolis?

Research Question Two: What are the relative contributions of age, marital duration, family type and nature of marriage to mental health of women in Ibadan metropolis?

2. Research Methodology

The study adopted descriptive research design of correlation type. It further employed the purposive sampling technique to select 250 women who reported mental health issues including depression, anxiety, addiction with average age of 40.7 years. A structured questionnaire was used to collect data from the respondents who are women. The questionnaire was structured into two sections: the first section contains demographic variables such as age, marital duration, family type and nature of marriage; the second session contains Mental Health Scale constructed by Ogunwuyi (2022) to elicit information about mental health problems exhibited by the women. It is a 20-item scale with yes or no response format with reliability coefficient of r=0.78 after two weeks of test re-test. The data were collected by the researchers with the help of five research assistants. The questionnaire was administered within four weeks. Only 200 were retrieved and analyzed using multiple regression analysis and Pearson product moment correlation.

3. Results

Research Question One: What is the joint contribution of age, marital duration, family type, and nature of marriage to mental health of Women?

Table 4: Regression Summary and ANOVA of Age, Marital Duration, Family Type, and Nature of Marriage to Mental Health of Christian Women

Multiple R = 0.314 R Square = 0.098 Adjusted R Square = 0.079 Standard Error = 5.54					
Analysis of Variance					
Source of Variance	Sum of Square	Df	Mean Square	F	Sig.
Regression	616.81	4	154.203	5.02	.001
Residual	5655.55	184	30.73		
Total	6272.36	188			

Significant @ p < .05.

Table 4 indicates that there is joint contribution between the independent variables: age, marital duration, family type, and nature of marriage and the dependent variable (mental health of women) ($F(4, 184) = 5.02$; Adj $R^2 = 0.079$; $p < 0.05_{.001}$). This implies that when age, marital duration, family type, and nature of marriage are taken together, they jointly contribute to mental health of women. Table 4 further reveals a multiple regression adjusted $R^2 = 0.079$). This reveals that independent variables (age, mental duration, family type, and nature of marriage) accounted for 7.9% or by approximation 8% of the total prediction in mental health of women while the remaining 92% may be due to other factors and residuals not considered in the study model. The finding implies that there was joint contribution of age, marital duration, family type, and nature of marriage in the prediction of mental health of women.

Research Question Two: What is the relative contribution of age, marital duration, family type and nature of marriage to mental health of women?

Table 5: Relative Contributions of Age, Marital Duration, Family Type, and Nature of Marriage in the Prediction of Mental Health of Women

	Unstandardized Coefficients		Standardized Coefficients		
Variables	B	Std. Error	Beta	t	Sig.
(Constant)	40.879	2.147		19.040	.000
Age	.653	.847	.057	.771	.442
Marital Duration	1.193	.951	.092	1.253	.212
Type of Family	2.231	.953	.168	2.341	.020
Nature of Marriage	3.081	1.036	.214	2.974	.003

Significant @ p < .05.

Table 5 indicates that there were significant relative contributions of age, marital duration, family type, and nature of marriage to mental health of women. Type of family ($\beta = 0.168$; $t = 2.341$; $p < 0.05$ and nature of marriage ($\beta = 0.214$; $t = 2.974$; $p < 0.05$), by implication, the finding in this section implies that type of family and nature of marriage made relative contributions of 17% and 21% respectively. This indicates that type of family and nature of marriage made significant relative contributions in the prediction of mental health of women. However, the following components of the independent variables did not contribute significantly to the prediction of mental health of women. Age ($\beta = 0.057$; $t = 0.771$; $p > 0.05$ and marital duration ($\beta = 0.092$; $t = 1.253$; $p > 0.05$), the table further found out that nature of marriage ($\beta = 0.214$; $t = 2.974$; $p < 0.05$ $_{(0.003)}$), made the most significant relative contributions to the prediction of mental health of women, followed by type of family ($\beta = 0.168$; $t = 2.341$; $p < 0.05$(0.020), respectively.

4. Discussion

The study investigated socio-demographic factors of mental health of women in lbadan metropolis. The outcomes of the study revealed that socio-demographic factors such as age, marital duration, family type, and nature of marriage jointly contributed to mental health of women. This is in agreement with a similar study that indicated that age, family type, nature of marriage are specific context which affect the mental health issues of women and may at the same time cause lower productivity (Loreto, Azevedo, da Silva, Malloy-Diniz, Ornell, and Trés, 2021). It then indicated that the age of women either young or old, marital duration in term of years of marriage, the type of family the women find themselves either monogamy, polygamy, single family, or distance family, and nature of marriage in term of court, Christian, Islamic and traditional marriage contributed to mental health problem of women. It is important to point out that mental health problems of women occur as a result of socio-demographic factors mentioned above but not restricted to them alone due to 8 percent contributions noticed in the outcome of the study.

However, nature of marriage made the most significant relative contributions to the prediction of mental health of women, followed by type of family, respectively. Other variables such as age, marital duration did not contribute to mental health of women problems. It could be explained that the nature of marriage and types of marriage contributed to mental health problems of women in the sense that many marriages in our societies are of traditional and polygamy. The unpalatable incidences in marital relationships caused mental health problems of women such as depression, mental illnesses, loneliness among others traditional marriages which give the man the309uperiorrity over women and make men to force their ways on women, leading to marital situation that deprives women of positive emotions of happiness. Many homes are polygamous and many women are nurturing their children alone because many men are not responsible due to economic hardship. Many women are not adequately cared for in term of health care, food, emotional support and exposed to unnecessary stress in providing for their children. This is contrary to the fact that socio-demographic factors such as good education, income, employment status, marital status, ethnicity, and access to healthcare services play crucial roles in shaping the mental health outcomes of women (Kuhlmann, Galavotti, Hastings, Narayanan, and Saggurti, 2017). As a result of inability to bear the stress, Studies that report higher level of stress are more pronounced and found in women in advanced age compared to younger counterparts because of the increase in family responsibilities and upbringing of children who are in their toddler age and therefore need more attention (Shindaye & Patel, 2010). Many women are plunged into mental health issues such as marital anxiety, aggression, sadness, suicide intention, mental illness, as a result of being abandoned by their husbands.

5. Conclusion

The study investigated socio-demographic factors such as age, marital duration, types of marriage and nature of marriage on mental health problems of women in Ibadan. The present study is a breakthrough in the investigation of socio-demographic factors as predictors of mental health problem of women in Ibadan. It is seen from the outcomes that there is joint contribution between the independent variables: age, marital duration, family type, and nature of marriage and the dependent variable (mental health of women). This implies that when age, marital duration, family type, and nature of marriage are taken together, they jointly contribute to mental health of women. It was also concluded that family type and nature of marriage made significant relative contributions in the prediction of mental health of women. However, age and marital duration as independent variables did not contribute significantly to the prediction of mental health of women. The nature of marriage made the most significant relative contributions to the prediction of mental health of women, followed by type of family, respectively.

6. Recommendations

It is hereby recommended based on the outcomes of the study that:

- Professionals such as counselors, social workers, lawyers, mental health experts among others should work harder to help women with mental health problems as result of their marital relationships;
- Counseling on prevention of and intervention packages on mental health problems should be fused into the curriculum of the Universities in a way that every student admitted will be educated on it.
- Government should make access to the treatment of mental health illness reasonable for women who are victims as a result of domestic violence and other related issues
- Media houses and media experts should use their professional competences to launch a progressive awareness campaign on radio, television and social media on the dangers of mental health among women in our society.

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The Influence of Emperor Constantine on the Present Day Church: A Case Study of Anglican Diocese of Ughelli.

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Abstract. Constantine was a Roman Emperor turned Christian. His reign was remarkable as he left indelible marks on the body of the church. His activities in the church of his time have generated much scholarly and theological debates bordering on his theological significance, political contributions, administrative impact and his socio-economic and spiritual inclinations. The issues mainly revolve around the question whether he helped the church positively or not; hence his impact has been viewed with ambivalence by theologians and scholars alike. Previous studies on this matter have focused on different aspects without adequately dealing with the question about how his legacies or antecedents have influenced the operations of the church, particularly as it affects the Anglican Diocese of Ughelli. The objective of this paper, therefore, is to investigate and examine the impacts of Constantine on the church in his time and how his influence extends to the Anglican Diocese of Ughelli. To achieve this objective, this study employed historical, phenomenological, analytical and evaluative methods. The study found out that most of the lifestyles and operations of the Church today have roots in Constantinean influence; while promoting the freedom of the church and enhancing her prosperity, he cast shadows on true Christianity and dimmed the light of spirituality by promoting apostasy, materialism, worldliness, politics and class consciousness into the church. It concluded that Emperor Constantine liberalised and reconfigured Christianity by introducing several secular principles and practices that have positive and negative impacts on the church today and these traits are evident in the Anglican Diocese of Ughelli.

Keywords: Constantine, influence, present day, church, Anglican Diocese, Ughelli.

1. Introduction

In church history, Constantine is a remarkable figure. Down the ages, there have been a lot of arguments on whether he was actually a blessing or a curse to the church in general (Salmon, 2022). This debate has not been satisfactorily laid to rest. As a religion, Christianity was believed to be simple until the time of Constantine. The argument is that Constantine interfered with Christianity to the extent that many things that are done in present day churches are traceable to Constantine, not to the early church. This has become a major problem for the present day church because there is need to understand Christianity in its basic form. The aim of the study is to examine the impact of Constantine's encounter with Christianity on the contemporary church, especially in the Anglican Diocese of Ughelli. Different methods were used to achieve the objective of the study which includes the analytical approach, descriptive and historical methods.

Contemporary church is incontrovertibly a remote off-shoot of the early church. However in between the early and the contemporary churches there have been several developments and individuals that have helped in no small measure in shaping the church. In the imperial period of the church, Constantine was an eminent figure. His influence, however, is considered to be one of ambivalence. Gonzalez (1984) had long maintained that the church had remained under the influence of Constantine up till twentieth century. The church is a very important player in Nigerian society, and as Omosor (2013) aptly stated, the way clerics and political leaders go about their business of leading the people in their various capacities affect the society and its various cells and organs in certain ways, be it religious, social or political, and this have effect on the

security, stability and overall development of the society. A close look at the happenings in the Anglican Diocese of Ughelli in relation to Constantinean policies would show that his influence on the church today is still very significant; and that brings up the question about the positive and negative influence of Constantine to the front burner in contemporary times. It will also show that current happenings are influenced by past events.

1.1 The Birth and Early life of Constantine

Constantine, also named Flarius Valerius Constantinus, was born in the military city of Nis or Nassvs (Grant, 1998). Scholars differ on the possible date of his birth. Harry (2003) opines that Constantine was given birth to around A.D. 288. Smith (2012) believes that he was probably born near A.D. 272. Opuko (2015) opined that it was in 274 AD that Constantine was born. Therefore, one can safely suggest Constantine's time of birth to be around AD 270-290.

His father, Constantius, who hailed from Moesia, was a soldier in Roman army as a member of the imperial body guard in 272 AD; and his son, Constantine, did not spent much time staying with him. According to Lindsay (1998), Constantius grew through the ranks, and first distinguished himself by his military talent under Diocletian, the famous Egyptian expedition in A. D. 296. Subsequently he served under Galerius in the Persian war. In 305, the two Emperors, Diocletian and Maximian abdicated, and were succeeded by Constantius Chlorus (Constantine's father) and Galerius (Smith, 2012). According to Lindsay (2005), the birth of Constantine's mother, Helena, was obscure as it was not certain if his mother was legitimately wedded to his father or not. It is in is also conjectured that she became a Christian after Constantine's conversion. Writing about the growing up of Constantine, Drake (2006) submits that he had an imposing appearance, sagacious and full of understanding with high administrative ability. No doubt, Constantine was naturally meant to be a decisive forceful and accomplished influencer.

1.2 His Life before Becoming Sole Roman Emperor

There was a political crisis that erupted in the Empire after the death of Emperor Constantius. Diocletian's scheme was soon disrupted by a set of ambitious men who were thirsty for power (Fatokun, 1999). There arose six rival Emperors, three in the Eastern region and another three in the West. Severus the legitimate successor in the East was raised to the dignity of an Augustus, and others clamoured for the same. Constantius the demise Emperor hastily made his way to Britain and was proclaimed Emperor at York by the army. Maxentius, the son of the retired Augustus put forward his claims, proclaimed himself Emperor at Rome, securing South Italy and Africa, his Father also laid claim to his abdicated throne. In the East, we have Galerius, Maximin Daia, (his Caesar) and Licinius (his comrade-in-arms). Fatokun (1999) rightly observes that this political pursuit also helped in a considerable measure in diverting the attention of the state from the church.

No doubt, Galerius and Constantius greatly influenced Constantine's appetite for power. Before he died, Constantius had proclaimed Constantine his successor. He was however opposed by Maxentius whom he had defeated three times. Tradition has it that Constantine claimed to have encountered the Christian God on the eve of the battle in which he saw a sign of a the Cross in the sky and above it were the inscriptions *in hoc signovinces*, meaning in this sign conquer. Then Constantine pledged that if he succeeded in winning the battle he would become a Christian. The next day, his army eventually had a complete victory, and Maxentius was drowned as he tried to escape across the Tiber river (Hasting, 1999). The seven years between 305 and 312, therefore, were extremely significant both for Constantine and the empire. Maximan had abdicated his successor Constantius had died, Maximian later committed suicide and his Son Mexentius was dead after military defeat. Hence at the age of twenty-four Constantine was supreme in the west. Constantine was now the only Emperor of the west. Similarly, by the death of Galerius in 311 and of Maximin in 313, Licinius ascended as sole Emperor in the East. Constantine's Victories were not events of accidents but rather are well calculated incidents. Gonzalez (1984) rightly observes thus:

An astute statesman, Constantine challenged his rivals one at a time always protecting his flanks before making the next move thus, although his campaign against Maxentius seemed sudden, he had been preparing for it both militarily and politically, for many years. His military preparations and campaign against Maxentius took only one fourth of his resources, thus making sure that during his absence there would not be a major barbarian invasion, or a revolt in his own territories. Diplomatically, he ensured that Licinius, Maxentius' neighour to the east, did not take advantage of the campaign of Constantine to overrun and claim some of Maxentius territories. So as to prevent such possibility, Constantine asked Licinius to marry his half-sister, Constance; and this would avail him the privilege of having a secret agreement with his prospective brother-in-law. This seemed to be a ploy to cover his flank. Nevertheless,

he waited patiently for Licinius to have a conflict with Maximinus Daia invading Italy.

This Milvian Bridge victory gave Constantine control over the western part of the Empire, while the East was still partitioned between Licinius and Maximinus Dais. A less astute states man would have immediately moved against Licinus for it seems that at this time Constantine had already decided that he would eventually go to war with him. But Constantine knew how to bide his time (John, 1986). It appeared that his alliance with Licinius was strengthened by their meeting in Milvian which made Licinius to channel his efforts against their common rival, Maximinus Dais. In 312 they published what became *the Edict of Milvian*, which granted freedom of worship to the church and returned all previously confiscated properties to the church. There upon Licinius to meet Maximin and defeated him in two battles. Maximin died in 314 (Opoku, 2015).

In the East, like the west too, all power was now concentrated in Licinius alone. It soon appeared that two emperors were one too many. Constantine and Lacinius fought a battle in 314 which was undecided. There was, however, peace for the period of ten years during which there was onslaught against Christianity by Licinius. Licinius must have thought that an anti-Christian policy would gain him pagan support in the coming struggle with Constantine (Opoku, 2015). In 323, Costantine defeated and captured Licinius in a sea battle. Fausta, Constantine's wife, persuaded her husband that Crispus (his Son) was trying to kill him so that he could be emperor. Constantine therefore ordered the execution of his son. He also killed his wife, Fausta, when he later realized that she lied and deceived him (Henry, 1984). Having thus defeated all his enemies, and having killed his father-in-law Maximin, his brother-in-law Maxentius, his second brother-in-law Licinius, his son Cripus, and his wife Fausta, Constantine reigned as the sole Emperor of Rome without any challenge.

1.3 Life as an Emperor

Constantine had not sought absolute power for the mere pleasure of it. According to Gonzalez (1984), he also dreamed like Decius and Diocletian his predecessors, of restoring the ancient glory of the Empire. The main difference was that, whereas Decius and Diocletian had sought that end through a restoration of paganism, Constantine believed that it could be achieved on the basis of Christianity. Lietzman (1949) a church historian, with a resentment which one cannot but respect, deplores that Constantine as a rule, allowed barbarians to rise to the highest imperial dignities and gave Christians administrative positions.

Some of the staunchest opponents of this policy were in Rome, particularly in its senates where old aristocratic members condemned the eclipse of their ancient gods and privileges. Several years prior to his last fight with Licinius, Constantine's interests had clashed with Roman Senate members' interest. Now, as sole Emperor, he boldly opted to rebuild and establish new city. Gonzalez (1984) in his description of Constantine's tall ambition maintained that it was going to be a New Rome, an unimaginably large and imposing city that would be named Constantinople, the City of Constantine.

Perhaps, it was the time of Constantine's anti-Licinius campaign that he realized the fact that Byzantium had strategic value. Byzantium sat at the fringe of Europe, almost touching on Asia Minor. It could therefore serve as to connect rod between the European and the Asiatic parts of the Empire. More so, if properly strengthened, Byzantium could control the Bosporus, through which all shipping had to pass in a way from the Mediterranean to the Black Sea (Opuko, 2015). As Seston (2012) noted, the peace treaty entered into with Persia several decades earlier was about to expire, hence there was need for the Emperor to establish his Headquarters near the Eastern border. Opoku (2015) observes that during that time the Germanic tribes of the Rhine were always a threat, and therefore it would not be wise that the emperor would settle too far from the West. It is probably for these reasons that it became seemingly ideal to make Byzantine the new capital. Claiming to have acted on the instructions of by God, Constantine did not take the glory for his choice of Byzantine as the capital city. However, whether he was referring to the Christian God or to the Roman gods is debatable. Nevertheless, this may be true because the city he founded would play a strategic role for centuries to come (Mclintock, 2016).

Since there was short of materials inadequate number of skilled artisans to meet Constantine's timetable, statues, columns and other such things were brought from various cities. Hans (1949) opines that Constantine imposed on the senators a class-tax according to their landed property to be paid, not in goods, but in gold. Constantine's agents scoured the Empire as they searched for anything that could embellish the new capital. It is worthy of note that Byzantine benefited from the pains of the other parts of the Empire. Several of statues of pagan gods were taken from their ancient temples and placed in such public places as the hippodrome, the public baths, or the squares. Thus used as mere ornaments, the ancient

gods seemed to be losing their old power. Perhaps the most famous statue thus taken to Constantinople was the image of Apollo which was purportedly Phidias' work, Phidias was said to be among the best sculptors of all time. This was placed in the middle of the city, a top a huge stone column brought from Egypt, and which was reputed to be the largest of such monolith in the World (Seston, 2012).

Scholar's views on the reign of Constantine as Roman Emperor differ. While some believe it was a time of under development in disguise others believe it was a time of prosperity and boom. While Gonzales (1984) sees it as a period of rebuilding and property, Lietzmann (1950) sees it as a time of no improvement in the economic outlook. Nevertheless, that many signs of ancient Constantinople can still be seen in modern Istanbul shows that Constantine must have embarked on some laudable projects during his reign as emperor.

1.4 Controversies over His Conversion

As regards the nature and motives of Constantine's conversion, there have been several debates. Some scholars doubt that Constantine was truly a Christian, while others are committed to proving that the Emperor's conversion was the goal towards which the church's history was formed. For instance Scholars like Eusebius went all the way to defend the view that Constantine's conversion into the Christian religion was genuine (Lindsay, 2005). For some others, Constantine was a crafty politician who knew and practically took the advantage of identifying with Christianity. Scholars who argue against Constantine's Christianity might have good reasons to do so. Even at the end of Milvian Bridge battle, and throughout his entire life, he never placed himself under the direction of Christian teachers or bishops which was a normal thing for Christians then. He considered himself as Bishop of Bishops (Gonzalex, 1984). After converting to the Christian religion, he participated severally in pagan rites and rituals which true Christians would never have taken part in, and none of the Bishops challenged such acts. The argument has been advanced that this was because he was powerful, dreaded and easily provoked as an Emperor; and more so, despite his pro-Christian disposition and his frequent attestation to the power in Christ's name, he was technically not a complete Christian yet since he had not been baptized. In fact he was only baptized while he was on his deathbed (Kolawale, 2007).

On the other hand, several reasons account for why Constantine may not overly be seen as an opportunist who embraced
Christianity to have their support. Such perspective is rather anachronistic because it does not take cognizance of the salient fact that supposing he was such an opportunist, he chose a poor time to seek the support of Christians. Boer (1985) was trite when he wrote that in spite of Constantine' sun-happy records, one would not take lightly the reports of his conversion. He made Christianity the empire's official religion.
Controversially, almost to his dying Constantine continued functioning as the High priest of paganism. After his death around 337, the three sons who succeeded him did not oppose the senate's move to have him declared a god. Ironically, in spite of all his assault on paganism, Constantine was deified as a pagan god (Prane, 2023). On the basis of this, it is only a matter of sentiment for scholars of church history and other interested analysts to argue for or against the view that Constantine was a true Christian. At any rate, what should be of fundamental concern is how his conversion and reign as a Christian cum pagan Emperor affected Christianity both in his time and beyond his death.

2. The Policies of Constantine as a Christian

Kolawole (2024) rightly observes that Constantine's impact on the church was felt even as late as the 21st century. Evidently, Constantine could affect or influence the church. While some saw it as a blessing, others saw as curse. In the view of Gonzalez (1984),

Majority of Christians reacted to the prevailing situation ambivalently, neither totally accepting nor rejecting it. For most of the church leaders, the new circumstances offered sudden opportunities as well great changes. Since both danger and opportunity were great, these leaders faced a difficult task. It is probable that not all their attitudes, decisions and actions were correct; but nevertheless it was an age of giants who would mould the church and determine its lot for generations to come. Constantine influenced the church in the following ways.

2.1 On the Stoppage of Persecution

After the Milvian Bridge battle, Constantine met Licinius at Milvian where he concluded an alliance with him. Part of what was agreed upon was the stoppage Christians persecution, and that their churches, cemeteries, and other properties would be returned to them. This agreement, commonly termed the *Edict of Milvian* marks the date usually given for the end of persecutions (A. D. 313). Although In truth

"Galerius Edict" was much more important, and despite the Edict of Milvian, Maxminus Daia continued his policy of persecution. Galerius Edict came into existence when Galerius who has been cruel to Christians became ill with a painful disease, and perhaps convinced by those Christians who said that this was a punishment from God, grudgingly decided to change his policy. (Bettenson, 1989). This edict is very important because it ended the cruelest persecution that the church had to suffer from the Roman Empire. Eventually in 323 AD, when Constantine became sole emperor persecution came to an end. In fact, Fatokun (1999) rightly observes that, this complete victory of Constantine brought Christianity into a more favoured position.

2.2 The Development of Official Theology

Eusebius and Ossius respectively, held the view that Constantine was incontrovertibly a fulfillment of the church's history and the Empire also. Others, however, saw a church Apostate leading to monasticism, break with the Apostate church and a great deal of intellectual activities in the church at large (Ayerst, et al, 1987). A lot of people came out to openly declare their theological issues. A notable theological discussion in this era was Arianism, founded by Arius whose principal contention was that Jesus was inferior to the Father; hence he rejected the concept of trinity. According to Gonzalez (1984), Eusebius wrote various theses to prove that Constantine was God sent. It seems he was aware of some of Constantine's shortcomings, especially his irascible and sometimes blood thirsty temperament. Eusebius works were indicators of the degree to which, even unwittingly, Christian theology was being shaped by the new circumstances even to the point of abandoning some of its traditional themes. This period saw the birth of official theology. Also, the first ecumenical council, presently referred to as "The Council of Nicaea", was called at this time and the Council formulated and produced a document now christened The Nicene Creed.

2.3 On Worship

Relatively, Christian worship was simple prior to Constantine's regime. At first, believers could gather in individuals' personal homes to worship, but cemeteries like Roman Catacombs later became their place of gathering (Gonzalez, 1984). However, structures were already being set aside for worship in the third century. The oldest church which archaeologists have discovered is that in *Duro-Europos* which date from around A.D 250 (Ayerst, 1974).

Following Constantine's conversion, worship came under the influence of imperial protocols. Incense, originally used as a mark of respect or to honour the Emperor, started appearing in churches. Gonzalez (1984) remarked that officiating ministers, who have before then had won every day clothes, started to dress in more in garments of luxurious. Similarly, various forms of gestures that indicated respect for the Emperor were then introduced as part of worship. The practice of beginning church services with a procession was also introduced. Nan elaborate and complex Choirs system was developed partly as a complement to the procession. Consequently, the active participation of the congregations began to wane as they played lees devoted roles in worship (Gonzalez, 1984).

According to Fatokun (1999), in A. D. 321, Constantine made the old pagan *Dies Solis* (Sun-day) the day consecrated to the sun, an obligatory holiday in honour and worship of Christ. Thus, a parallel could be drawn between the *Sol Invictus* (the unconquerable sun) worshipped by the Roman army as a battle god and *Christus Victor* (Christ the Conqueror), the Christian God who made him victorious during the Milvian Bridge battle. Consequently, he pronounced *Christus Victor* as the real God of battle to be worshipped by the soldiers. It is imperative to note however, that such was not the first time *Dies Solis* (Sun-day) was declared Christian day of worship. From the inception, the primitive Christians were already meeting on week day for worship. Constantine only made it official.

2.4 Church Architecture

From the era of Constantine, churches built defied the usual simplicity for which churches like Dura-Europos was known. Constantine personally instructed that Saint Irene Holy Place should be built as a church in Constantinople. His mother, Helena, also built church of the Nativity on the Holy land and another one also at Mount Olives. Similar churches were built in the major cities of the Empire by imperial order sometimes; although the church could simply decide to replicate the patterns in the new capital.

This policy continued under Constantine's successors who sought to perpetuate their memory by building great churches. Even though several of these churches constructed by Constantine and later his successors now lie in ruins, evidences abound to show that the basic building plans, obviously copied by subsequent churches at that time, are still being replicated in many churches today.

2.5 Veneration of Martyrs

By the second century, it was already an established practice to commemorate the death of a martyr annually through the celebration of communion at the tomb of the martyr. However, in the era of Constantine, this practice came to national light. Church buildings were eventually built in several of these places. Incidentally, the idea that worship was better when conducted at such holy grounds where the remains of martyrs could be found (Fatokun, 1999). Resulting from this notion, the worshippers began to exhume the remains of martyrs to put them underneath the altars of the churches they were building. Yet some others started to claim revelations about martyrs that were either unknown or readily forgotten (Gonzalez, 1984). Some even claimed to have received visions of about the particular spot where martyrs were interred, like the example of Ambrose and the purported remains of Saint Gervesius and Protasius. Eventually the remains of New Testament Saints were believed to possess miraculous powers.

2.6 Constantines's Influence on the Kind of Christians Raised

The victory of Christianity was seen by pious church members as a curse in disguise (Fatokun, 1999). This is because a great number of nominal Christians were being turned out, instead of true worshippers. In other words many became Christians not because they really wanted Christ, but because of the great opportunities the church now offered. It was fashionable to be called a Christian. The Lords spiritual rapidly became the Lord temporal as well. Besides, Ecclesiastical politics was born, such that the church went into state politics and vice-versa. Some unqualified individuals bought their ways into the bishopric and other offices through simony, nepotism, and so on. The bishopric of Rome itself became highly contested for selfish gain and not really for service to Christ as revealed in the pagan Pratextatus joking remark to Pope Damasus in which he asked the Pope to make him Bishop of a Roman Church and he would become a Christian immediately (Paul, 1976). The clergy of ranks were affected by riches; there was also degeneration of morals among the laity. The church drifted from what it was prior to the persecution and Constantine's conversion.

3. Brief Historical Background of Ughelli Diocese

The Ughelli Diocese of the Anglican Communion was inaugurated on the 8th day of January 1998. At creation, the Diocese started with five (5) administrative units which included All Saints Cathedral, Ughelli Archdeaconry, Ewheru Archdeaconry, Ugheivwen Archdeaconry and All Saints Chapel, D.S.C. The Diocese was made up of over 154 Churches. At present however, there are 360 churches and 22 administrative units.

The Diocese was one of the 11 dioceses in Anglican Province of Bendel, which was among the 14 provinces in the Church of Nigeria (Peter, 2024). The first Bishop of the Diocese was Bishop Vincent Muoghereh. His successor, Bishop Cyril Odutemu was installed as the Bishop of Ughelli Diocese at 38, thus becoming the youngest Bishop in his time. In the year 2020, he became the Archbishop of Ecclesiastical Province of Bendel and also the Bishop of Ughelli Dioces. Again, he became the first Urhobo man in Anglican Church to achieve such feat.

4. Implications of Constantine's Influence on Ughelli Diocese.

Constantine's influence have fat reaching effects on Christianity today, and its implications for the Anglican Diocese of Ughelli cannot be overemphasized. A careful observation would reveal that some of the traits and elements he introduced into the imperial church in his time are still very much prevalent in Anglican Diocese of Ughelli today. Below are some of the significant influences.

4.1 The Relationship between the Church and the State

After Constantine's controversial conversion, Christianity gained prominence and became a state religion. Consequently, interactions between the state and the church started. Prior to Constantine's era, church activities and policies were parallel to that of state (Opoku, 2015). The union of state and the church brought about state interference in the affairs of the church. In contemporary times, one major concern of the church is for her to be totally liberated from the grip of the state. Although there is now separation of state and the church, the latter has become so much interested in politics while the state is also interested in the church. This has led to unwholesome politicization and materialization of Christianity.

4.2 Flamboyancy among Ministers

Among the influences of Constantine on the church was the ostentatious regalia and flamboyant appearance of clerics. Similarly, gestures that marked respect for the emperor have now become a culture and adapted into Christian worship, thereby breeding

eye-service Christianity in which members of the congregation now genuflect and literarily worship high ranking superiors. This has great implication for the contemporary church, like in the case of Anglican Diocese of Ughelli. Ministers are now looking gorgeous and some of these dressings are still present in orthodox churches such as the Catholics and Anglican Churches where their priests wear flamboyant-regalia. Many Evangelical and Pentecostal ministers also adorn themselves with expensive clothes. The Bishops' dresses even have the *Kai and rho* symbol, which was the sign Constantine claimed to have seen before his victory in the famous Milvian Bridge battle.

Although the advantage of this development is that it has greatly improved the appearance of the ministers and also as well as the respect accorded to them. On the other hand, some contemporary Christian ministers go to the extreme in their pursuit of fashion whereby distracting their members from worship, hence have made Christianity void of her simplicity which was evident in the early church.

4.3 Influence on the Order of Worship

Following Constantine's conversion, imperial protocols characterized Christian worship, which affected the way church services were organized, how the congregation sang and host of other formalities were introduced. These have also been introduced in all the churches around the world. In Ugheli Diocese for example, the custom of beginning service with processional has been the practice (Apiloko, personal communication, 2024). Also, the choir tradition was also developed. Before then, it was more of congregational singing. In Anglican Diocese of Ughelli, there are choirs in different churches (Okiemute, personal communication, 2024). Eventually the congregation came to have a less active role in worship. One of the implications of this in present day churches is the fact that the order of service has become more sophisticated. In orthodox churches such as Catholic, Anglican, Baptist and some selected Pentecostal churches such as Winners Chapel and the Redeemed Christian Church of God, members now have less active roles in the service. While most churches in the Anglican Diocese of Ughelli still retain the idea of beginning the order of service with processionals like in the days of Constantine, a lot of Pentecostal churches such as Winners chapel and Redeem Christian have jettisoned the process (Emakpor, personal communication, 2024)

Another way this has affected church service is that there seems to be class and protocol in churches. Seats are now reserved for Very Important Personalities (VIPs) in Churches; special seats are kept for the bishops and other ranking clergymen and even women as well as government functionaries. The reserve seats for Priests and Deacons Anglican Churches. Some churches even go to the extreme of making these special seats majestic and very expensive, like that of an earthly king (Oteri, personal communication, 2024). Obviously this idea of special seat began in the era of Constantine when the idea of Christ sitting on a throne was introduced; and consequently very much like a Roman emperor, Bishops were also given special seats. Although the idea was to give honour to whom honour is due, care should be taken so that contemporary ministers do not begin to assume the positions of Lords. Some men/women of God have misused some of these privileges to turn themselves into demigods.

4.4 Influence of Constantine on the Structures of Church Buildings

Constantine's influence on the architectural designs of church building is very significant. Ughelli diocese boasts of the presence of gigantic and conspicuous church buildings. Although churches built by Constantine's and his find successors have been destroyed, there is enough evidence that their plans were copied and used to reproduce the designs many churches in contemporary times and this has influenced or inspired other similar bogus, sophisticated and expensive church buildings. Churches are now very much concerned about where they worship. They are bordered about the conduciveness of where they worship (Ekiugbo, personal communication, 2024). It is not uncommon to see churches with highly sophisticated architectural designs, and fully air-conditioned. Before the time of Constantine, Christians bother-less about where they worshipped. Although this can be seen as necessary because of the ongoing developments in contemporary era, the church must make sure that emphasis is not shifted from true worship and believers' welfare to building sophisticated and stupendously expensive physical structures.

4.5 Economic Significance.

Constantine's era was marked with prosperity both for state of Roman and the church. The Emperor gave huge grants of money to clergymen. In Constantinople, Jerusalem, Bethlehem and other places, he erected magnificent church buildings. Present day churches are also prosperous in like manner. From his time, the church has prospered financially and is still prospering. This is evident in the land mark projects such as missions, church edifices, universities, schools,

hospitals and so on, that churches now embark on. Ughelli Diocese has equally embarked on many of such projects (Jonathan, personal communication, 2024).

4.6 Implication for Official Theology

The famous Nicene Creed which was developed Constantine's time is still effectively believed in the Anglican Diocese of Ughelli. The agreement reached on the trinity is still what the Anglican Church believes till date. The effect of the official theology which developed in Constantine's era could be seen in how it evolved the practice of training would-be priests in seminaries and some other theological schools. The monks' reactions in Constantinean period gave birth to the idea of seclusion, monastery, and personage in contemporary time, which are evident in the Anglican diocese of Ughelli.

4.7 Implication for the Type of Christians Raised

During the Constantinean period, a lot of people became Christians because of what they would gain and also because it was fashionable to be regarded as a Christian. In the same vein, many people profess Christianity today without being genuine converts but simply for what they think they can benefit from the church (Ekere, personal communication, 2024). Some also become Christians when there are no troubles, just as Roman citizens became Christians after the end of persecution during the era of Constantine's reign. When such people are faced with serious challenges they easily backslid. Some who identify with the Anglican Church in Ughelli today do so because it is fashionable to be classified as a Christian (Peter, personal communication, 2024).

Furthermore, this has also affected the passion for missions in the church of today. The Christians being raised now seem to be at sleeping and making funfair with Christianity like the church in Constantinean era (Bello, personal communication, 2024). Some ministers on the other hand care less of the state of their converts. Some of them no longer follow up converts; hence there are many believers in the churches today who are easily swayed by false doctrines.

5. Conclusion

The extent to which Constantinean legacies have impacted the church can only be imagined. Indeed, his influence cannot be undermined. However, the Constantinean influence on the church is two-pronged, being positive and negative. He laid the foundations for most of the lifestyles of the church today as is evident in the Anglican Diocese of Ughelli. Ranging from the pattern and order of service/worship, the choir model, liberal and material Christianity against strict spirituality and self-denial, class consciousness in the church, bogus, patronage of pagan gods, sophisticated and opulent architectural designs of church buildings, the religio-political interaction between the church and the state, the declaration of freedom of worship, the introduction of official theology, to the introduction of ecumenical councils, Constantine left an indelible mark on the church and the vestiges of his influence are evident in Anglican Diocese of Ughelli.

The church today must be careful, circumspect and discerning to know when it is sliding dangerously into the world of ungodliness. It is true that freedom of worship is good as much as the prosperity of the church is desired, but believers must not allow corrupt and power-drunk people who come from the realm of secular leadership to interfere with the affairs of the church. The church and the state and, politics by implication, are two separate things that must not be fused together in any guise (Omosor, 2019). Church leaders and believers generally should reappraise the church and seek to understand aspects and dimensions of the Constantinean influences on the church so as to know is Christian and what is Constantinean. This will enable the present day church to sieve some of these influences. Those that are not in consonance with the bible should be discarded, while those that are scriptural and beneficial to the church should be retained and improved upon.

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List of Interviewees

S/N	Name	Sex	Age	Occupation	Place of interview	Date
1	Apiloko Tega	M	38 Years	Clergy	Ughelli	25-05-2024
2	Bello Sunday	M	82 years	Retiree	Warri	30-05-2024
3	Ekere, Josephine	F	25 years	Student	Ughelli	25-05-2024
4	Ekiugbo, Philip	M	37	Lecturer	Online	20-05-2024
5	Emakpor Ochuko	M	45 years	Clergy	Ughelli	26-05-2024
6	Jonathan, Akpos	M	33 years	Lecturer	Ughelli	25-05-2024
7	Kevwe Sonia	F	30 years	Teacher	Ughelli	26-05-2024
8	Okiemute, Gladys	F	28 years	Teacher	Ughelli	25-05-2024
9	OteriAghogho	F	35 years	Church Administrator	Warri	26-05-2024
10	Peter, Philip	M	55 years	Clergy	Ughelli	24-05-2024

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Bridging the Divide: Exploring the Journey of Unity in the Ecumenical Movement

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Abstract. The Christian community's ecumenical movement was founded upon a desire for unity and cooperation among differing churches. It aims to create a diverse and yet unified church, grounded in the early churches' apostolic sense. The movement emerged in response to the pluralistic issues of modern society, with hopes of promoting unity amid diversity. The term "ecumenism" was originated after an International Missionary Conference in 1910, gaining further popularity following the Second Vatican Council. Organizations such as the World Council of Churches (WCC) offer means for ecumenical engagement such that various Protestant, Orthodox, Anglican, and others may fulfill their stance under these principles. Overcoming numerous challenges over time, the ecumenical movement continues to evolve today through new strategies, partnerships, and educational resources meant to support its mission of promoting cooperation and fostering interfaith dialogue while also sowing seeds for social justice and addressing human rights issues. In 1948, with World War II having a profound impact on society at large, renewed interest arose prompting new efforts and initiatives for peace and justice. The establishment of WCC that same year achieved a significant milestone by providing a means through which different Christian traditions might work towards unity-improving collaboration through years thereafter. Recent decades have seen challenges such as secularism or religious diversity, but with remarkable progress too via embracing opportunities available. Such opportunities made possible via numerous focal points have strongly supported ecumenical projects through dialogic ties with interfaith groups-and while recognizing core values around promoting peace and reconciliation within nations worldwide in order instilling hope while addressing global injustices of all kinds regardless if religious or political altogether worldwide. In summary, it is indeed ever hopeful than before that the ecumenical movement remains undiminished to continue advancing what has already been accomplished-to allow for continued growth amidst shifting political landscapes, such as nationalistic sentiments or populism styles globally speaking-pursuing tirelessly its objectives of unity within diversity no matter what comes next; being strengthened too by new allies and partnerships, constantly improving educational approaches to meet the evolving challenges of this digital age.

Keywords: Ecumenism, Christianity, Movement

1. Introduction

Christianity as a faith is comprised of several different traditions including Roman Catholicism, Eastern Orthodoxy and various Protestant groups - each of which aims for unity through its involvement in ecumenism. By balancing diversity with unified cooperation within these distinct congregation's ecumenism confronts contemporary pluralistic realities. Despite its early roots stemming from Greek words related to "the entire inhabited world" and "household," during a pivotal moment at the International Missionary Conference held at Edinburgh in 1910 it gained traction indicative of missionary works' demand for unifying forces. Later on (following Vatican II) Roman Catholics also adopted this term with wider implications which included church wide renewal able to better serve societal needs while providing space for "separated churches". Through organizations such as World Council of Churches (WCC) which was founded back in 1948 and boasts more than five hundred million Christians worldwide among its more than 350 member churches belonging to varied Christian denominations - including both Anglican & Orthodox denominations alongside Protestant ones alike. The significance of ecumenism cannot be overemphasized in Christianity's modern context; however, bringing

together diverse establishments is not without controversy or difficulties.

The primary difficulty arises when certain conservative religious fac–ions view ecumenism as detrimental towards their traditional belief structures. Another grey area that needs addressing involves balancing varying perspectives against unifying action in search of collective goals within different Christian traditions. Despite such obstacles' presence or severity at any given period, ecumenism's potential for unifying Christians through fostering co-operation and understanding remains intact. Moreover, the movement has successfully facilitated a vast sense of community and shared purpose among Christians worldwide through church networking events. Studying this historical evolution enables us to gain essential insights into contemporary challenges while discerning opportunities that could lead to achieving collective goals; from an effective ecumenism approach.

1.1 Origins of the Ecumenical Movement

In light of significant changes during the early years of the 20th century including modernity's rise to dominance, scientific discoveries as well as World War I aftermaths have not only impacted different sectors worldwide but also religion significantly-particularly Christianity fragmented easily into diverse views across denominations further leading to a sense of disillusionment among followers around conflicts within themselves they noticed first hand. To address these concerns effectively, the ecumenical movement came up- aiming specifically at greater unity, cooperation along with constructive dialogue between various religious traditions/churches A primary factor contributing to this trend was an increased awareness amongst leaders informed by an acknowledgment that existing divisions greatly limited them from working together especially when operating beyond their traditional functional realms. As per Papini (2019), World War I had a significant impact on fostering ecumenism. The war fundamentally transformed pre-existing assumptions/values leading many people to feel disheartened or despairing about their future. In response, Christians began championing notions of unity and love that Christ exhorted his followers to embody. Notably, John R Mott played a pivotal role during the movement's early years as part of student Christian organizations in late 19th/early 20th centuries (Woods,1965). Through increased focus on cooperation and dialogue between distinct Christian groups he facilitated several conferences such as 1910 Edinburgh conference where representatives from diverse denominations discussed mission work and evangelism - an epochal moment in ecumenical history.

Another critical event during early ecumenical advances was the establishment of Faith and Order movement (Plaatjies van Huffel,2017) aiming towards greater theological/doctrinal collaboration among various Christian denominations convening accomplished church leaders/theologians across various traditions for discussions on several areas like nature of Church/sacraments etc., promoting shared understanding driving better cooperation laid groundwork shaping later ecumenical activities like World Council of Churches. Nevertheless, various controversies arose over differences in theological perspectives/traditional contributions to broader Christianity needing closer examination than was previously available alternative ways ideally suited managing tensions explored in due course of time by future developments in ecumenicism history. With over a century-long history under its belt spanning multiple contributors from varied organizations and personalities alike powerfully depict what constitutes the ecumenical movement. The birthmark of this noble course is assigned to the World Missionary conference held at Edinburgh back in 1910 which offered much direction to this initiative's growth trajectory. Subsequently various other conferences sprang forth with Archbishop Nathan Söderblom leading on topics including faith & order along with life & work (Whiteman,2003). The Roman Catholic church choose distinguished non-participation during these early days with Eastern orthodox participants only representing via exiles residing beyond Western lands with Nazi Germany limiting participation for Germans. However following WW II cueing more cooperation than ever noted before, Amsterdam was chosen as ground zero for founding the World Council of Churches in 1948 that became a powerhouse attracting Protestant, Orthodoxy, Anglicanism & even other church branches totaling 300 (Bassham, 2002). Among its mission objectives existed promoting Christian fellowship via dialogue across theological differences whilst addressing social justice issues and peace matters. This formation was symbolic of unity efforts in Christianity's circle thereby noting an influential milestone.

1.2 Impact of World War II

World War II brought considerable transformations to the ecumenical movement beyond the establishment of the World Council of Churches. It aroused an unflagging interest in exploring Christianity's role relating to social as well as political issues amidst all its respondents and crises during those times. To

overcome challenges from this conflict period a new collaborative change came forth between various religious communities committed to peace-building measures for promotion of fairness as well as restoration both intra-and inter-religiously for reconciliation post-war phase. In spite of challenges facing them such controversies surfaced regarding religion-state relations that encompassed within them divisive power struggles around issues like pacifism or utilization patterns underlining faith practices which bothered Christian faithful. Therefore, Christian religious leaders across continents making fellowship have been trying relentlessly promoting equality helped especially in bridging gaps between communities through interfaith communication by virtue their faith guided actions which has taken form through various initiatives undertaken worldwide post-war.

1.3 Formation of the World Council of Churches

Establishing WCC back in 1948 marked a significant milestone moment during an era where church relations felt extremely fragmented. Its main goal was promoting unity among believers into one voice working towards greater good while aiding social justice issues affecting marginalized groups worldwide at that time. It was first mentioned during the 1937 Oxford Conference on Church, Community, and State sparking a robust conversation among fellow delegates representing various Christian denominations seeking ways to include church society members in secular conversations (Lodberg, 1999).

Beside its origin story, WCC fully took shape after the Amsterdam Conference on Church and World Order in 1948 aimed at exploring mission work, evangelism, social justice issues while promoting theological education. Its attendees included diverse representatives from different Christian traditions who sought peace and reconciliation after WWII while still advocating for better cultural understanding (Kobia, 2010). Despite facing numerous challenges over the years regarding social injustice and diversity issues within its member groups causing differences in beliefs known Schisms that occur within most denominations worldwide today. The Council remains devoted to upholding its vision of promoting unity among its members groups despite any differences through spearheading various initiatives geared towards achieving this goal (George Chanakra, 2017). Several global events have played a vital role in World Council of Churches' development throughout history. Events have been held throughout history aiming to promote unity amongst several Christian traditions by embracing modernization.

One example is the Second Vatican Council held between 1962-65 (O`Malley, 2010), seeking cooperation as well as an opportunity for reform within the Catholic Church. Another significant event is represented by the Lausanne Congress on World Evangelization which brought together representatives from various Christian denominations in order to address evangelism- related questions in1974. Additionally International Ecumenical Peace Convocation was held in 2011 focused explicitly peace-building amongst different divisions of Christianity while addressing issues such as war violence conflict resolution that could otherwise threaten this aim (Simeon & Ayanga ,2022). Since poverty inequality is widely known challenges too often associated with aggression towards others -The WCC launched a Decade to Overcome Violence campaign back in 2001 formulated specifically along nonviolent principles with a focus on issues such as inequality social justice and other structural concerns. Finally, Joint Declaration on the Doctrine of Justification with Catholic Church and Lutheran World Federation- signed in 1999, marked another significant step towards mutual understanding cooperation between various Christian beliefs (Jensen,2003).

1.4 Ecumenical Movement in the late 20th Century

As secularism proliferated in society during the late 20th century whilst religious influence declined. The ecumenical movement encountered significant difficulties (Wilson, 2016). The changing times made it tougher to remain relevant and dominant. Nevertheless. From this challenge arose an opportunity for the ecumenical movement to target new audiences and think outside of conventional methods. Ecumenical organizations acknowledged that engaging with people who had a minimal or nonexistent relationship with religion was vital. Consequently. Creative outreach programs such as community service projects, interfaith dialogues and social media campaigns were developed (Fitzgerald, 2004).

1.5 Ecumenical Movement in the late 21st Century

The quest for greater unity, dialogue across different Christian traditions characterizes present-day ecumenism. Nonetheless modern society's everchanging social-political-cultural landscape leaves complex new issues on its plate. This piece aims at expounding on these matters.

The recent surge in diversity concerning religious-culture traditions constitutes one significant challenge facing this movement: "We cannot preach unity without understanding our differences first," Sukupapa posited (2018). Consequently, more innovative means have arisen& most notably fostering interfaith dialogue through which we can appreciate others' perspectives better (Waweru'18).

World politics' recent attitude of nationalism& populism forms another hurdle for ecumenical harmony therefore more division& polarization (Fitzgerald,04). Yet this challenge also presents opportunities to advance peace, justice and reconciliation amid such hostility. This has led to a quest for international networks- partnerships whose influence can raise awareness consequently increased understanding about global issues.
As such the growing diverse cultures-religions & changing politics pose challenges. Nevertheless, we should always remain optimistic by discovering second chances through opportunities for growth. The 21st century has witnessed a revolution in technological innovation which has opened up an easy avenue for various organizations and movements globally across differing borders to collaborate efficiently while sharing cross-resourcefulness alongside being able experts form unified working partnerships amidst such commonalities which will help advance greater global unity based on cooperation within ecumenical groups. Beyond fostering greater harmony among differing Christian traditions promoting peace as well as growth globally -- changes in political ideology continue giving rise is present new challenges never faced before -- nevertheless seeking redress can only come via a coalition fashioned positively around constructive dialogue aimed at constructive change. By focusing on pressing issues today around social justice and human rights, ecumenical movements must reassess their understandings and relationships with these issues. By raising awareness through advocacy while fighting for global balance against injustices using ethical standards, they continue to uphold the ethos of peace, harmony as well as cooperation amongst themselves.

By exploring these religious and spiritual values relating to social justice, reconciliation& peaceful coexistence while including a faith-based perspective it allows ecumenical groups to engage in new ways of effective discourse in this era of societal change. The changes faced today ranging from the diversity of religious traditions to changes in political landscapes pose considerable challenges that ecumenical movements must tackle head-on -- however, the opportunity exists for them to impact contemporary discourses around peace building by promoting love & care whilst embracing diversity across denominations [while collaborating with other religious groups].

2. Ecumenism in Nigeria

The history of ecumenism within Nigeria is a captivating story that dates back to the inception of Christianity in the country. It all started when Thomas Birch Freeman, a Methodist missionary and fellow Anglican missionary Henry Townsend worshipped together on Christmas day at the Methodist Church in Badagry in 1842.This began a journey of bringing multifarious Christian denominations together within Nigeria. Anglican Bishop Samuel Ajayi Crowther made tremendous contributions playing his role promoting ecumenism when he gifted a Roman Catholic church a parcel of land gifted to him by Onitsha Obi in 1885, an act showcasing Christianity unity across different church groups within Nigeria.

The African Independent churches developed due to ecumenical partnerships between various Christian denominations with the Cherubim and Seraphim Church being established first in Lagos by 1925, later followed by Christ Apostolic Church which contributed significantly towards ecumenical growth. Immanuel College's existence is another product from seamless partnerships among diverse yet critical Christian denominations such as Anglicans and Methodists that founded it for study purposes on September 29th, in 1958 at Ibadan Oyo State.

The university's establishment demonstrated exceptional unity amidst Christians, enhancing cooperation amongst them. Precedent for cooperative inter-church activities has been set through fifteen churches consisting of the Christian Council of Nigeria (CCN), which includes crucial members such as Church of Nigeria (Anglican Communion), Methodist Church Nigeria, Nigeria Baptist Convention and Presbyterian Church of Nigerian amongst others leading towards unity amongst different individuals within Christianity. Nigeria acknowledges Pentecostal Fellowship of Nigeria (PFN) and Bible Society (Nigeria)(BSN)as its two primary organisations with Ecumenical missions. The PFN influences Pentecostal Churches nationwide since its establishment back in1991. Prominent organizations in Nigeria have been crucial in encouraging ecumenism and promoting unity and collaboration between various Christian denominations.

3. Conclusion

To summarize, the role of the ecumenical movement holds significance for creating unity amongst different Christian traditions through dialogue. Despite changes arising due to factors such as politics or culture within this century's landscape creating new opportunities or challenges for development, it has continued to adapt by utilizing newer strategies. This movement can be instrumental by engaging in interfaith dialogues/collaborations which help promote a faith-based perspective for human rights issues/distributive justice while also working towards more substantial networking & partnerships aiding worldwide crises resolution. Through its contributions to these causes above all headwinds amidst growing conflicts/divides arising everywhere reconciling peace, justice or increasing understanding is possible based on its insights & active role-play beyond doctrine/dogma. As current/worldwide political-social scenarios undergo unprecedented changes staying informed/learning more about ecumenism remains critical for its effectiveness on critical global socio-political concerns at present.

4. Recommendations

In view of ecumenical movements throughout history, this present article formulates ten guidelines providing recommendations for today's world-religion:

- Acknowledge dialogue is paramount between various Christian indications along with other faiths or non-religious groups
- Promote respectfulness concurrently fostering mutual understanding; recognizing diversity in both culture(s), tradition(s), and experiences within the Church or general society
- Push forward as an entity seeking constant addressing of issues from prospective views premised upon vital aspects including; environment sustainability, social justice, and human rights
- Develop curricula to educate society at large and raise awareness about underlying factors causing social, environmental issues and ways to solve this plaguing phenomenon
- Actively advocate for policy changes capable of tackling societal systemic problems; combats against poverty, human rights abuse, equality etc.
- Embrace technological advancement whilst ensuring the viability of social media platforms to address contemporary issues.
- Nurture by encouraging participation from women, youth and other underrepresented/marginalized groups, stimulating their leadership potentials within the church. 8.Encourage cohesion barriers between local churches, national ecumenical organizations, regional and global ecumenical as well
- Emphasize accountability schemes in a culture that breeds transparency by subjecting leaders/institutions to actions committed or decisions reached
- Enable heartfelt humility by fostering open communication within diverse cultural backgrounds while celebrating tradition(s); encouraging honest communication when confronted with contentious differences.

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Part Five

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'Choreoclecy': Beyond the Borders of Choreography

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Abstract. The framework upon which the structure, form, contents and chronological sequencing of dance hinges has always been considered to be choreography for as long as it fulfils the requirement of being consciously and purposely done. However, since there are two sides to dance especially in Africa; the secular (that which warrants consciousness to do) and the sacred (especially the trance inducing ones - that abhors being consciously done), the term 'choreography' has often been inadequate to capture the science of creation of such latter kind of dance. This is why this paper is concerned with examining the extent to which the term can really fare where it concerns esoterically inclined African worship dances with propensity for trance. To atone for this noticeable gap, this paper has adopted being descriptively analytical in its approach to navigating the strength and weaknesses associated with the term choreography in dance composition situations. The paper goes beyond pointing out the gap to making frantic efforts to solving it by introducing the term 'Choreoclecy', being; that which converges both the sacred and secular motifs, movements, actions, patterns, designs and forms with the ontological and worldviews of a people in evolving as well as inducing dances for worship irrespective of the depth of consciousness that is required. This term is articulated through the basic principles and formulae that are required to aid easy dissection and analysis of the inherent compositional structures in most worship dances.

Keywords: Choreography, Choreoclecy, trance, worship, dance

1. Introduction

The question of whether or not there can be dance without choreography deserves more attention than it has ever received, bearing in mind that what makes choreography is the 'consciousness' with which the dance was meant to be 'meticulously', 'purposefully,' and 'deliberately' composed. Basically, choreography in its broad sense is a process that combines the art and act of compiling, coordinating, arranging and packaging of movements, actions and other semiotic devices into an aesthetically pleasing artistic dance product. Leveraging on the above explanation, let us ask, can there really be a dance without choreography? Substantively put, the answer ought to be NO, since choreography is popularly believed to be the skeletal framework upon which the form, content, structure and nuances of a dance piece is built. This implies that without choreography, there most likely can not be a dance as, such an experience will, at best remain an amoebic experience that is without form or essence. Premised on this assertion therefore, the aim of this paper is to examine if the term 'choreography' is adequately appropriate in devising a process for all dance composition especially those that are trance inclined.

Now, if we are to ask again; can there be a trance inclined worship dance without choreography? The answer may not be as easy as we have tried to clarify above. Bearing in mind that most dance experts are of the opinion that every African dance is essence-driven which means it must either be saying or expressing something, commemorating an event or at best, be representing, documenting and propagating the communal beliefs, aspirations and worldviews of the people. *The New Encyclopedia Britannica* (1998:267) gives credence to this assertion in positing that the only absolute rules in choreography are that "it should impose order upon dance beyond the level of pure improvisation and that it should shape dance in the three dimensions of space and the fourth dimension of time, as well as according to the potential of the human body". Consequently, this means that the absence of choreography in a dance performance implies that

there is no message that is thoroughly conceived, articulated and relayed in the performance.
In a worship situation therefore, due to the fact that it is linked to faith, religion and the worldview of a people, all the socio-aesthetic criterion for dance appreciation are grossly inadequate as the context of appreciation a worship (especially the ones with high propencity to induce trance) far surpasses moves from a 'man to man' engagement to a 'man to the spirits/ god(s)' experience. In addition, the criterion for valuation and validation differs from mere on-lookers perspectives to an initiate's perspective. The paradox created here is aptly noted by Anderson, who observes that "All dance styles are not alike, and some, to the uninitiated, may look decidedly odd" (Anderson, 1974:9), this puts the choreographic merits in such a dance to some questions. Such a referred dance case may warrant plausible 'infrared mirror-cast situation' to dichotomise the differences between the sacred and the secular dance orbits.

2. Understanding Worship Dances in Relation to Choreography

Dance and music are inseparable in religious acts emphasizing worship. Thus, in a worship situation, dance provides a vehicle for the merger of body and spirit. For that reason, dance seems to provide a unique experience by which the constraints of the flesh are broken down and the spirit taking possession by transforming the body into a malleable pulp. Thus, the use of prayers, songs, chants, drumming, clapping and dancing characterizes the worship in almost all Christian sects under the Organization of African Churches especially those ones wearing spiritual gabs like the Aladuras, Celestial Church of Christ, the Christ Apostolic Church, the Cherubim and Seraphim Churches and the Olumba Olumba Obu. However, the heavy reliance of the worship mode of the Cherubim and Seraphim church on dance acts is unparalleled in comparison with these other Christian sects. This is why Harper (1999:43) further corroborates that in worship situations "the question of sacredness or profaneness is defined by the variety of occasions and performance places in which the dances are observed". Nonetheless, worship modes differ considerably depending largely on factors such as:

- The myth or belief that establishes and sustains the deity, phenomena, or element that is being worshiped;
- Reason(s) that necessitate the worship/ occasion;
- The place and materials for the worship;
- The nature of songs, chants or rhythms that are devised for the worship, etc.

In relation to liturgical worship dances therefore, three distinct dance typologies or categorizations exist. These basically are the

- Dance modes that are strictly or purely secular in nature.
- The partially secular and semi ritual dance types. and
- The purely sacred dance type which often lead to ecstatic frenzies or trance-like moments.

Nonetheless, it must be stressed that all the three categories of the liturgical worship dance can either occur separately or simultaneously within a worship situation.

The ritual dancers believed that whatever experience that is being physicalized (by the dancer) must first have been composed and relayed in the esoteric realms, hence the physicalized dancer is merely complying with or animating instructions, order and injunctions as shown or handed to him/her by the visiting spirit/ angels. The dancer may be manipulated by a spirit being who has temporarily 'borrowed' his/her body or simply walking through a familiar routine of actions that is derived from a dream, vision or any other medium of means of contact between man and the spirits.

'Deliberateness' in the course of most liturgical worship dances is akin to the African way of explaining the mystery of orderliness and purposefulness in most ritual dance situations. This explains why Idowu (1962:142) observed that religious dances (of which the liturgical dance types form a part) are often of considerably

…fixed patterns and must be done correctly – which foot goes forward first, which movement of the hands and body accompany it, which turns are taken next and how many times each component of the pattern is to be repeated – all these must be carefully observed.

Hunningher (1968:57) also corroborates this idea of fixed patterns in the demonstration and adherence of orderliness in the various features of the dance movements when he observes that during ritual performances "…the dances are exact… a single misstep and the dance must be repeated from the beginning, to prevent the spirit from becoming confused and to preserve the order of the dance itself".

This view of strict adherence is further corroborated by Awolalu (1979:142) who asserts that in worship dance situations the '… songs *(and dances)* are not

sung *(and danced)* accordingly, the sacrifices will not be acceptable to the divinities… this is because the ritual dances are not mere emotional response to the rhythm of music. They are symbolic, often re-enactments of something sacred'.

In the light of this, it is apparent that dance acts in worship modes are often done to emphasize order or mapped-out outline of procedure, a convention that is composed. Its structured instances imply that all actions (codes) are deliberately knitted together to make a complete whole which can neither be omitted nor added to in the cause of its performance whether consciously or sub-consciously.

It is a sort of 'being led' syndrome by the muses. Horn (1981:196) observes that in ritual (performances) the actor (dancer) is seen either as a representative

… (a priest) or as another being entirely (a spirit). As a priest, he is …the repository of certain arcane knowledge and the skilled or even inspired master of magical processes. As a medium, he is presumed to become another entity, to cease entirely being himself. Whatever the degree of his dissociation, whatever the depth or duration of his trance, he is perceived by the audience, if not always by himself, as the spirit incarnate.

Awolalu (1979:112) affirms also that those who are possessed always "find it difficult to explain how it all happens". This means in plain terms, that the dancer (mounted person) is unconscious during the act of trance. This incidentally explains why terms like 'possession', 'mediumship', 'multiple personality', and 'religious ecstasies' are often used by researchers in the course of relating the experience(s) of the trance medium personality. Horn (1981:187), in his analogy (based on Raymond Firth's explanations) agrees that in both cases of spirit mediumship and that of spirit possessions, a person's actions are believed to be dictated by an

… extra-human entity which has entered his body or otherwise affected him. Both kinds of phenomena may often be regarded as instances of multiple personality, that is the individual concerned assumes another identity, refers to his normal self as "he" and sincerely differentiates this new identity sharply from his everyday self (Horn, 1981:187).

The possessed and the medium character are not treated equally in most societies. Whereas a person possessed is believed to be sick, those in the categories of medium are regarded as hale and hearty. However, in the case of spirit-possession, the behavior does not

…necessarily convey any particular message to other people… It is just regarded as "bodily expression of spirit manifestation". While in the case of spirit mediumship, "the emphasis is on communication…" This implies that the verbal and non-verbal behavior of a person, who is possessed by a spirit, acts as a medium, must be more highly controlled than that of a person simply possessed … They are regarded as people who are just "carrying out a special role, and the behaviour of both tends to be largely stereotyped, to conform to a kind of code" (Firth, 1969:xii).

Adelugba (1981:217) approached this discourse from the point of their ascribed designates for medium characters as being the "horse" or the "mounted" when he asserts that

…the relation between the god and the man of whom he has taken possession is comparable to that of a horseman to his mount. Thus it is said that the god 'mounts' or saddles his (cheval). Possession being closely associated with the dance, the image of a 'spriit (sic) which dances in the head of its horse' is used. The invader is a supernatural being who takes possession of the body; hence the current expression: 'the loa (the spirit) seizes his horse".

By religious 'ecstasies' and 'frenzies' (being other kinds of terms that is used) however, we refer to a situation where the possessed is

…consequently transformed into the essence of the god himself or the goddess herself, and during the trance, characterized by ritual sacrifices, incantations, music, song and dance, the possessed is capable of the prophet's sight, communicating with man as a first-person representative of the deity (Adelugba, 1981:210).

3. Choreography and Choreoclecy: the Twinning Twinning Context

Fodeba's (1959:20) proposal that "African dance is not detached from the lives of the people, but a spontaneous emanation of the people". Fodeba's assertion, like most other African dance -based theories is, first and foremost, anchored on the notion that every dance by an African is holistically created to reflect both the tangible and the intangible experiences that characterize the African worldview as a unique experience and understanding in itself. By this, Fodeba seems to have subsumed the culture of the people in its entirety under their dance practices, bearing in mind that a people's culture itself is believed to imply the "sum total of a people's way of life; their shared beliefs, practices and social behaviour (Lynne, 1979:3). This further implies that the dance of a people is therefore an inalienable part of their everyday living because it documents their habits such as eating, walking, singing, dancing, dying, celebrating, talking as well as other patterns of relating and living.

As mentioned earlier, unlike the secular dances in Africa, the sacred (worship dances) are yet to enjoy sufficient theoretical choreographic attention, especially when they have trance attributes. These are largely due to the several knotty problems that are found to characterize the nature of ritual/worship dance performances both in their content and in context. Some of these difficulties are:

(a.) drawing the boundary between the esoteric and the mundane world or spheres (as reflected in the body motifs, movements and actions) of the dancer, where like the self tail-chewing snake, one aspect of the two worlds dovetails into the other (the sacred and the secular).

(b.) unearthing the nature of trance in most worship dances is often very obscure and scary because of its subconscious and sometimes unconscious (esoteric) attributes.

(c.) Insufficient knowledge of the ritual processes of a sacred dance based on the idea of secrecy of practice that often characterizes the nature of most trance inclined dance practices.

The operations and nature of most of these worship dance practices are shrouded in mystery and coded gestures, movements and actions that make it difficult for non-initiates to penetrate or decipher. This has been taken into cognizance in our devised theory of *Choreoclecy*, which essentially relates to the fusionistic tendencies of both the sacred and secular factors in the motifs, movements, actions, styles, patterns and dance designs as used in a worship context.

'*Choreoclecy'* is a derived term, whose root words are based simultaneously on the concepts of "choreography" and "eclecticism". The peculiarity of the worship dance as a performance entity is broadly conceived, understood, relayed and preserved as a cultural aesthetic and potent worship activity. This is because dance performances in the African perspectives are always an eclectic experience in which several factors often combine in varied proportions to form the style, techniques, contents and context of the performance. As an ephemeral and transitory art which takes its form in the performance rather than in the 'outlined' designs (scripts), dance creation experiences (whether viewed as a sacred or a secular activity) are therefore as dynamic as the processes and the essence that necessitate their creation. This eclectic chord is viewed from the functional purview of the compositional process while its aesthetic values compliment such outcome.

The creation patterns in the choreography and performance aesthetics of liturgical worship dances highlight both the sacred and the secular dance features (as exemplified by the worship practices of the C&S Zion Church) hence, their creation patterns and processes are hinged on the medley of the notion of 'conscious', 'sub-conscious' and the 'unconscious' intentional levels of human actions.

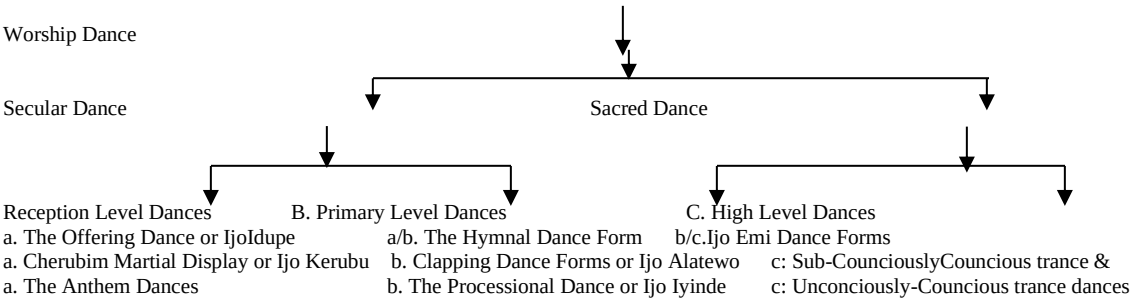
Attempts at unearthing the worship dances by isolating these three parameters often amount to treating a microcosmic unit of the dance as against the macrocosmic entity. This is why most existing choreographic theories of note are not considered adequate in the treatment of liturgical worship dances, especially that of the C&S Zion Church. For instance, the '*Emotionalization'* choreographic theory in dance as pioneered by the likes of Isadora Duncan and made popular by the likes of Martha Graham, Anna Sokolow and other such Modern choreographers is of the opinion that 'dance must reflect the emotional states of the dancer'. This is considered inadequate in the analysis of worship context, especially in trance inclined dance situations. If this happens, the performance would have lost its worship potency as it would only be analyzed based on its theatrical features alone as a conscious act. Subsequently, the '*Motionalization'* choreographic theory of dance as pioneered by Alwin Nicholais and pursued by other such avant-garde radical choreographers like Merce Cunningham's (chance method), Doris Humphrey's (fall and recovery technique), etc., is a theory that is concerned with studying the motional attributes of dance rather than the trivialities of storytelling and vagaries of emotional displays in dance (curled from Reynold and Reimer-Torn's *Dance Classics*, 1991:233-287).

If this theory is to be applied as the basis of the analysis of a worship dance, the '*motionalization'* theory can only go as far as determining the aesthetic formations and perhaps the scientific analysis of the movements and other mannerisms of the dance while the ontological realities of the worshiper's world as meaningfully relayed in the movement compositions will be left out. Worship dances are in themselves unique experiences that thrive in layers of consciousness; hence, it demands a unique compositional analysis that will take care of all its attributes wholesomely. This has always been the philosophy behind the cautious formulae for the handling of sacred matters such as this, by the practitioners of such worship tradition that "*E je ki a se bi won ti n se, ki o ba le ri bi o ti n ri"* implying that "things should be conventionally followed in order to ensure that the desired result be as it is meant to be".

This principle of 'systematic formulations' and 'systematic adherence', has equally guided us in adopting the theory for the analysis and understanding of this worship dances.

Thus, our introduced theory of '*Choreoclecy'* in worship dance discourse implies that the designing and formation process and patterns of a worship dance are of various dimensions, hence, it is to be perceived as an interwoven galaxy of beliefs, motives, cultures, artistry etc, in order to make operative or functional statements using the dance art. It conjures up an emerging scenario of two or more identical or un-identical intentions, purposes and worldviews to form a new identity that is complete in itself. The principles of the theory of 'Choreoclecy' gives credence to three kinds of worship dance variables that is marked according to the levels of consciousness that they thrive in. Based on the worship dances studied for this study being the the ilaje's version of the C&S Zion churches, there were seven dance categories or forms, which in turn characterize the features of the worship situations.

Fig. 1. *The Ilaje C&S Zion Church model dance chart.*



Category A. This refers to dance modes that are strictly or purely secular in nature but are performed in the course of worship as an essential aspect. This dance mode demand full consciousness since it places very high priority on performance aesthetics. The dances in category A are done with full Consciousness of the dancer/ worshipers. The common denominations here are that they are all meant to serve as inducements for entertainment purposes and to induce monetary appreciations to the church either directly or to the individual or group dancers based on the measure of their virtuoso and performance dexterity. The dances are often rehearse-able and they are often infused as separate segments into worship segments and are thus not considered a part of the 'living worship'.

As mentioned above, this category features such dances as; The Offering Dance and Ijo Idupe (Thanks Giving Dance modes), Kerubu Martial Display and the Anthem Dances. The formulae for arriving at the composition of such dances within the framework of *Choreoclecy,* is

Reception Level Dances (Secular Worship Dance)

$$\frac{C\,i + E}{W} \times S = \frac{D}{A}$$ (Secular Worship Dance).

Key

C I = Conscious Intention
E = Dancer's Experience
W = Worldview(s)
S = Skill
A = Aesthetics
D = Dance Experience

Category B. This refers to the partially secular and semi-ritual dance types. The level of consciousness here is equally full but it may fluctuate into the sublime, especially if done under the isoji or revival services atmosphere. The dances in category B are considered the preliminary stages to the actual 'living worship' known as "*Isin Emi".* Not only do they usher in the actual climax moment of the service, they are in fact so crucial that without them there is no worship. Each of the three dances in this category often starts ordinarily with full consciousness and gets accelerated as the worship progresses.

The momentum gathered often transcends the consciousness or controllable abilities of the worshipers into a state of sub-consciousness. The situation here is flunctuative as a worshipper who for instance is engaged in the clapping

action, finds himself or herself entrenched in the clapping action beyond his limit of comfort yet he can feel the pains and perhaps injuries sustained in the course of the uncontrollable clapping action.
This category features such dances as The Hymnal Dance Form, Clapping Dance Forms and The Iyinde Dance form. Also, the formulae for arriving at such dances (choreographically) within the framework of *Choreoclecy,* is
B. Primary Level Dances (Sacred Secular Worship Dance)

$$\frac{Q + W + E + C}{A} + i = D \text{ (Sacred-Secular Worship Dance)}$$

Note: Variables are denoted by the keys below.

Key

Q = Intention
E = Experience
W = Worldview(s)
C = Culture
A = Aesthetics
i = Intuition (level of spirituality which in this case is always flunctuative depending on the level of muse)
D = Dance Experience

Category C. This category is about the purely sacred dance types, which often lead to ecstatic frenzies or trance-like moments. In this category, the dance that is featured is the Ijo Emi Dance Forms (Ijale or Egungana concept). The dance in category C marks the climax of any worship especially in African liturgically devised worship situations. It refers to the state of already being in the spiritual muses or realms, a sort of completely given to the muses syndrome. The peculiarity of its manifestation is culturally binding as the Ilaje C&S Zion churches manifests theirs peripherally (called *Ijale*) while the other C&S churches, Celestial church of Christ and other churches in the Organization of African Indigenous Churches operates their Ijoemi within the core space limits.
The formulae for arriving at such a dance (choreographically) within the framework of *Choreoclecy,* is in two phases;
C. High Level Dances (Trance inclined)
Peripheral or Mobile Trance Dancing

$$\frac{Sc^1 + Wc \times W}{S + P \quad I} = TD^1 \text{ (Peripheral or Mobile Trance Dancing Dancing}^1\text{)}$$

Note: Variables are denoted by the keys below.

Key

Sc^1 = Casual Case of Sub-Consciously Conscious-ed
Wc = Worship conventions
W = Worldview(s) of the people
S = Skill or dexterity of the dancer
P = Physique/ presence/ weight and height of the dancer
I = Intuition (message intended and as may be seen to have been communicated)

Core or Restrictive Trance Dancing

$$\frac{Sc^2 + W \times W}{S + P \quad I} = TD^2 \text{ (Core or Restrictive Trance Dancing}^2\text{)}$$

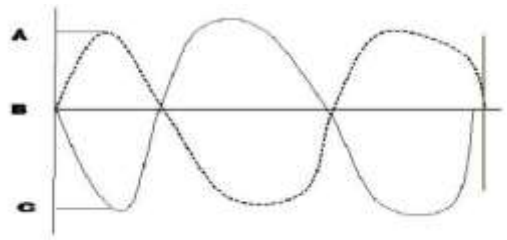
Note: Variables are denoted by the keys below.

Key

Sc^2 = Extreme Case of Sub-Consciously Consciousness
Wc = Worship conventions
W = Worldview(s)
S = Skill
P = Physique
I = Intuition

The above show that worship dances occur within the limits of three dance poles as mentioned above. Also, that the dance experience as might have manifested in the secular situation may not be termed secular in the worship situation but sacred, even though the content and structure, style and form of the dance remain same (as exemplified in prototype 'A'). The content of dance prototype 'A' category is secularly inclined but the context is now for a religious purpose at a religious arena and that automatically transforms it into a sacred activity.

Fig. 2. Frequency Chart in the Conscious Levels during Worship Dances

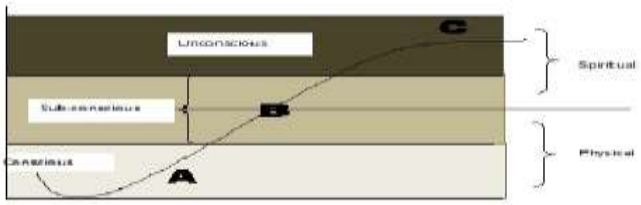


Key:

A- Exoteric Spheres/ Unconsciousness
B- Sub-Consciousness
C- Conscious sphere

The case of prototype 'B' is the same, even though the attitude in this case is revered and more disciplined. This in turn transforms the 'secular' formatted dance into a kind of 'secular-sacred' oriented dance. These two mentioned dance cases that is 'secular-sacred' dance form, is according to the worldviews of the Zionists considered 'ordinary' irrespective of the degree of aesthetics or intricacy of patterns that it thrives in. This is because it is devoid of the essential 'life force' that is functional and required for the assurance and communication between the world of the spirits and of man.

Fig. 3. Levels of Consciousness in most Worship Dances



This type of 'Ordinary Dances' (Secular-sacred) in the worship situation refer to the 'insignificant' movements that are derogatorily referred to as '*Ijo Ara'* which in local parlance implies 'dance of the flesh' or the 'lifeless' dances. This further means that they are movements, motifs and actions of mere motions that are devoid of worship 'life-force'. Among such secularly inclined worship dances, aesthetic considerations are high. Nonetheless, irrespective of their aesthetic appeals, they are not treated as core activities but they play complimentary roles in form of desirable movements, actions and conventional nuances in the course of the worship performance.

The third pole however Is directly opposite to the first. It is considered the 'Living' dance or "*Ijo Emi*" in local parlance. This refers to the dances (movements, motifs, actions, etc) that are considered to contain life force. They may follow a progressive, regular or irregular pattern, or seem impromptu. Yet, due to the fact that these movements have certain efficacies with direct bearing on both the spiritualists, the congregations and the spiritual world, it is believed that the dancer is only dancing/ communicating or communing in the language of the spirits. The dance is thus considered as polysemic (carrying multiple meanings). In such sacred dances (especially the trance inducing worship dances), the semiological indices of a movement, motif or action counts more than the aesthetic considerations, as it is functional rather than complimentary.

4. Justification for Choreoclecy

The choreographic features manifest in the creative parameters of the content while the context of the worship performance dwells more in the appropriateness and efficacy of the chosen icons that in themselves are totemically coded in the worldviews and belief of the people. In this wise, the eclectic nature of such dance products is of two-fold. First, each dance is a combined product of the worldviews or civilizations that have merged to produce the worship. Hence, to understand such works may amount to understanding all the strands that makes up

the emerging culture. Secondly, the idea that a worship activity is by its very nature a sacred affair is diffused by the fact that most dance typologies that are observed at such worship moments are makeup of the secularly conceived actions and nuances, but with added values. This is why Harper (1999:43) further corroborates that in worship situations "the question of sacredness or profaneness is defined by the variety of occasions and performance places in which the dances are observed".

This act of dilution in secularly-given movements, actions and motifs within a diverse, heterogeneous, or multifarious sacred characteristics is eclectically inferred in describing the act of selecting what appears to be the best from various doctrines, methods, or styles of one or more cultures to evolving a new 'culture'. This also includes picking from varied aesthetic and ideological dispositions, art, politics, social science, management, administration, teaching, etc, as well as the creative arts (carving, weaving, painting etc) to make a new, independent and a holistic product. Kofoworola locates this eclectic chord in African performances, though from the aesthetic point of view and declares that the functionality of arts (especially in worship) context goes beyond the 'visible' which provides the form for the experience of the arts in form of the creative and the performing arts into the realm of the 'invisible' elements or factors by which aesthetic performance of the 'artiste' or 'performer' is enhanced (Kofoworola, 2004:11)

Furthering this Anozie also affirms that there are eclectic imperatives in the art, religious and cultural practices of the people when he asserts that in every culture in Africa, there exists empirical models, which may be normative or prescriptive, conscious and unconscious, developed to account for other manifestations and events, both creative and cognitive in all fields and cultural life of a people (cited in Obafemi, 2008:176).

5. Conclusion

The New Encyclopedia Britannica (1998:267) declares that the essence of choreography is to "ensure that the evolved movement activities qualify to be called dance rather than mere motor activity". similarly, the term choreoclecy as it has been argued all along identifies and accommodates both the conscious and the sub-conscious design patterns and process in dance composition and performance. This implies that all forms of liturgical worship dances qualify for rich choreographically enriched experiences as even the manifestation of trance and heightened ecstasies in worship dances are not mere display of unstructured actions. Whatever be the movement executed, actions observed or passions relayed, the experience is always in consonance with a manifested experience that is divinely motivated/ devised.

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'Maiduguri' as Parable of Postcolonial Condition: Interrogating the Contexts of Patrick Oguejiofor's *Maiduguri Requiems*

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Abstract. In Patrick Oguejiofor's collection of poems, *Maiduguri Requiems*, 'maiduguri' is metaphorised as a weird landscape noted for endless lamentations, especially over the horror of terror, instability and permissive tragedies of human disaster and disillusionments. The poems resonate a disruptive parable of postcolonial African encounters that invite critical attention. This work adopts a qualitative method of analysis in which the collection is read purposively and examined critically, relying on trauma theory and post colonialism as theoretical parameters. The selected entries are examined towards situating the connections between poetic imagination and socio-political and historical realities of a nation that has remained atomistic, ill at ease with itself and as citadel of terror, banditry and appalling contradictions. The analysis unravels 'maiduguri' beyond the assumed locale but as symptomatic of a nation that held great promise at independence but has continued to drift many decades after independence till deep into the 21th century, when others are growing at great speed on the scale of living standards and meaningful progress. The work concludes that the postcolony has remained too long at the brinks of human tragedy, and must exert as much energy as possible to brace up to the reality of postmodernity through systemic repair and reorientation in every ramification.

Keywords: Maiduguri, the postcolony, extremism, human disaster, lamentation, Oguejiofor.

1. Introduction

In every society, the artist carries the mirror of the universe high up for purposeful reflection and serves as both 'rememberer' and reminder in terms of socio-cultural reality and human progress. The creative artist thus serves as agency for self-retrieval and self-examination so that the present and the future generations can benefit through appreciation of the dynamics of human society across time and space. S. E. Ogude rightly points out that "literature… is not simply the reflection of a people, but the collective experience of a people expressed collectively" (1). In the African traditional world and even in the contexts of 'postmodern' reality, the artist plays the role of embodying the collective mind of the universe of his/her existence. Uwem Affiah, David Udoinwang and Offiong Eneh Amaku aver succinctly that the artist brings his/her ingenuity to bear on the prevalent existential reality as the work, among others, rouses attention of social participants "...stimulates thought, creates suspense, yields amusement, and compels participation on the part of the audience" (13). The audience in this case is constituted in the consciousness of sensitive populace who are alive to the realities of the society in the artist's imagination. The poems that we are going to deal with in this analysis utilize the symbolic geo-physical and socio-political landscapes to recreate the reality that are embellished in them.

In this regard, Oguejiofor's collection simply serves as artistic reflector as well as mediator of the banal order of the postcolony envisioned in the setting of the poems by creatively echoing persistently and stridently the gruesome moments of the collective experience of a people whose chequred history hinges at the multifaceted troubling parables of and paradoxes that palpably weave the unfortunate encounters and bleakly songs in the poetic rendition. In the metaphors of the poem, the citizenry of the universe which

'Maiduguri' aptly depicts in the poet's imagination, clearly intertwines a postcolonial Africa where socio-political crisis and existential malaise are common place and symptomatic. Reminiscing on the half a century of African liberation, Martin Meredith hints at the dynamics of this shared agonising heritage of postcolonial African condition thus:

Although Africa is a continent of great diversity, African states have much in common, not only their origins as colonial territories, but the similar hazards and difficulties they have faced. Indeed, what is so striking about the fifty-year period since independence is the extent to which African states have suffered so many of the same misfortune (14).

The above statement is bound to project one's guess into the backdrops of the pessimism that continues to permeate artistic vision on African situation. The assertion above draws attention to the prevalence of traumatising encounters that have been pervasive in the real life drama of living in the African postcolony where daily existence has remained harsh, brutish and despicably contradictory. The leadership elites of the postcolonial societies behave with impunity of power even when 'democracy' and democratisation have been realized and trumped up as the continental norm. The elites largely corner the patrimony and leave the mass of the citizenry in dire straight, and the latter struggle hopelessly in the bids for bare existence.

The universe in the poetic imagination of *Maiduguri Requiems* focused in this critical context is a milieu that is still grappling with existential setbacks which rests at the fringes of human development, without a significant flicker of sustainable hope and optimism. The poetic unction and simulating symbolisms that adumbrate 'maiduguri requiem' could be utilised as the aesthetic figuration by which the reality of the moment can be re-defined and interrogated to illustrate the reality, tragically though, in Africa's postcolony even in the present digital age. Elleke Boehmer while citing Achebe, puts it thus succinctly that, "In the postcolonial period, too, as Chinua Achebe has said, stories define us" (5-6). The writing in every genre with the critical interventions of scholar across humanities disciplines point at the dire situation of postcolonial encounters that echo through the lines in the anthology analysed in this work.

About a decade after independence of most African states, in the second half of the 1970s specifically, Areoye Oyebola lamented the unpleasant situation that points at the reality of black man's backwardness in his book, *Black Man's Dilemma* (1976) stating pessimistically that:

"No black country has successfully developed or adapted the technology of Industrial civilisation to assure its citizens of high standard of living. I don't know of any black country which has made any meaningful beginning in the development of, at least, parts of modern technology or science. No black country has solved the problem of poverty among a great majority of its citizens. None has found any concrete solutions to the problem of poor nutrition, endemic diseases, inadequate basic education and infrastructural facilities" (10).

The situation articulated in the passage above has not in any significant sense of it changed several decades after the above author's outburst. What most of the nations have had has been harvest of violence and crudity and mutual destruction under one label or the other that have formed the grieving parable of postcolonial Africa of which 'Maiduguri Requiem' is merely echoing the situation. J.P. Clark's poem 'Here nothing Works' from the anthology *State of the Union* (1986), vividly echoes the sordid realities of postcolonial state situation. The prolonged nightmare that overhangs postcolonial African universe has unleashed barrages of human tragedies, and the blame hinged on the misfortune of weak, self-serving and visionless leadership. The baffling footages of violence, genocidal conflicts, starvation and the cataclysmic carnages that continue to ravage and weaken postcolonial states, especially those states geographically located down the equator, including Nigeria, where the dark testaments oozing out of *Maiduguri Requiems* is set, give writers in every genre the humming ferment for artistry energy, biting rebukes and the unending quest for national redemption in each of these hapless postcolonial states.

The reality of postcolonial encounters has continued to ginger creative engagements among scholars, creative writers and humanists in the bid to remind, negotiate or re-negotiate the awful condition of the African postcolonial condition. Consequently, Elizabeth Enukora asserts that African writers have continued to powerfully resonate their voices with defiant outrage by utilizing literature as a dissident tenor to confront and dissipate their venomous anger against bad leadership, violence, poverty, disintegration, violent crises, exploitation and foreign dominated economy (101). This scenario informs what James Tsaaior[a] refers to as "the historical scene" that map 'modern' African poetry" (115). 'Modern' African poetry since inception in the 1940s has remained fervently committed and deliberate in appropriating artistry as tool of socio-cultural re-engineering and nationalism in the face of the political culture that has remained wayward, atomistic and inhibitive to progress.

Focusing specifically on Nigeria, James Tsaaior[b] puts it aptly and specifically this way:
Nigeria's monumental failure to lead has continued to receive literary and critical attention from its many creative minds. Nigerian writers spanning the generic and generational gamut have reached deeply into their quivers to cast barbed arrows at their nation which inspired great optimism at birth but has chosen to squander its patrimony (11).

Much of the crises that continue to truncate postcolonial African states are mostly man-made and often traced to leadership failures. Most of the states are victims of misrule held captive and bound in the claws of self-serving tyrants, a bird's eye view across the African continent and a journey through history book and inquiries through creative literatures, all point at this same proposition of state failure as source of the multifarious human disasters that characterise most of African states.

The thematic issues that run through the collection vividly reverberate the idiolect of angst and awaken memories of horror that characterise social ambience captured in the renditions. There are evidently undertone of multifaceted reversals and human disasters which the persona tries to scene-map or recount in every title that makes up the collection. Each of the subtitles rememorises landmarks of fatalities and tragedies that result into the trauma of human horror, brigandage, banditry, terrorism, and the imagery of the dead, burials and morning house situations in the poetic presentation. It is quite benumbing that at the historical moment when well-meaning nations are competing at great speed in the bids to catch up with the all-encompassing digital globalization and development (David Udoinwang and Ikpe Akpan 2023), the Nigerian postcolony is depicted as a universe that still languishes at developmental crossroads. These images are symptomatic of the continually drifting status of the postcolony. 'Maiduguri' as captured in the poetic lenses has become a milieu that has been sorely violated, broken down and devastated. The landscape is depicted metaphorically as a haunted world; a place of lamentation, despair and sorry tales. In its social context of the subject matter, Maiduguri thematised in its infamy as the vast, ever-yielding graveyard waiting to receive its uncouth victims, creating space for mourners and the dead. It is apicture of a place of horror and terror, littered with shallow graves, bones and skulls. The landmass in the allusions of the poet persona appears to be wired with lethal mines, bombs and grenades.

In the 21st century postcolonial Nigerian, the concept of 'Maiduguri' draws some remarkable attention that is bound to strike some dread and hysteria. The global community has come to associate the word 'Maiduguri' with death, horror and human disaster. But this has not always been the character of Maiduguri, as history bears records of its pre-terror glowing heritage as a place of trade and commercial center of the Sahel African zone. But this was before religious extremism erupted and at the moment the land lays maimed with nauseating sore. In the introductory part of the book, the author points out that, as 'eye witness' with vivid guess, that this violently ravaged milieu was once "…a beautiful city that serenely housed individuals from various parts of Nigeria and sub-Saharan Africa" (v). It is globally reported that Mohammed Yusuf founded the Boko Haram sect in 2002 in Maiduguri, Bornu State, which was hitherto one of the most serene and important historical cities of the north-eastern zone of Nigeria. He found ready hands and foot-soldiers to recruit in the sprawling homeless, poor and castaway mendicants that marked the face of the otherwise peaceful city; and with it, the Islamic preacher established a religious complex that became averse to Western education and modern technology and development. Gillian Dunn reports that the crisis of Boko Haram in the north-eastern Nigeria and other related incidences started to manifest with temperaments of force and jihad. This prepared the grounds for the mutation of Maiduguri to a cauldron of woeful tales as adapted in Oguejiofor's *Maiduguri Requiems*. An extract form Dunn's report goes thus:
Nigeria is Africa's most populous country and among its most diverse with over 400 ethno-linguistic groups. The country is affected by several conflicts based on overlapping ethnic, religious, political and regional divisions including over resources in the Niger Delta, Christian-Muslim divides in the middle of the country, and most recently, the rise of Islamist groups in the north, most importantly, Boko Haram (1).

The above elicits the chequered narrative of the ever-festering crisis bedeviling the Nigerian state which is aptly captured in the poetic binocular of the poet persona in the texts being analysed in context. The specific setting of the poet's experience might be Nigeria, but the wider perspective stretches to other similar and variegated tales of woe, beyond one specific state to cover the length and breadth of the whole postcolonial African landscape.

The author of the text poses as a witness or life experience in an attempt to give glue to the audience or reader of his rendition. This foregrounds the lamentations that pervades the landscape of the poems

in the collection. The author puts it further at the introductory pages concerning the social world that compels the temperament of the poems in the book thus:

Though first composed in 2007, 'Maiduguri Requiem' was inspired by the moon eclipse of April, 1996, and the senseless and mindless killings that followed it which I witnessed while serving the mandatory NYSC scheme in that alluring but now devastated city. No compensation was paid to those who lost their loved ones. Nor was any one charged for the atrocities by the authorities. Not too long after that, the city witnessed yet a worse waste of

the innocents in what has come to be known as the Cartoon Riot instigated by a newspaper cartoon in faraway Denmark. An estimated 80 people died in this particular incidence…Then the mother of them all: the Boko Haram insurgency. As I write these lines, the Boko Haram sect continues its rampage of terror laying waste thousands of innocent lives including those who share the same faith with them… The killing of scores of students of Federal Polytechnic, Mubi…The kidnap of 200 school girls from their college at Chibok village, countless bombings of market and other public places in Maiduguri, Jos, Abuja and several towns and villages and so on are crimes the earth will never pardon (iv-v).

This prelude to the collection sets the tone and temperament of the collection and kicks started the issues that need to be continually interrogated in the committed quest for redress over the multifaceted crisis and conflicts that have benighted the African postcolonial space. The writer, the scholar or critic cannot fail to visit these landmarks, no matter how odious, nauseating, mind-numbing or troubling they may be, for the writer as well as the critic is socially responsible to the real universe of their existence. The writer must continue to bring these situations back to mind for the sake of remedying shared humanity and as elected duty that must be carried out with commitment. Stephen Lynn aptly asserts that "Literary works are, in a way, like places we can visit…Some call us back again and again: others we feel obliged to experience, knowing they'll do us good, even though we never quite enjoy them. Inhabiting a literary work, we can … We can momentarily transcend the boundaries of our lives (xvii). The renewing memories of the puzzling circumstances in the postcolonial encounters serves to perpetuate the needed radical, revolutionary temperament (David Udoinwang and Kufre Akpan 2023) and for keeping with human progress and socio-cultural dynamics of postcolonial history and encounters.

2. Musing the Dirges and Allegorical Requiems Over the Postcolonial Ferment

The titles of each of the poems in the sections constitute and constantly echo the agony and dreadful milieu that is enshrouded in 'maiduguri'. The sphere is cast as a badly battered landscape. The choice of words or idiolects, coupled with the aura or atmosphere under which the poet persona selects in building the lines in the verses invokes solemnity and enchanted the universe of which the reader or audience is emotionally aroused. The tone of the words and symbolic usages deployed by the poet persona are weighty, penetrating and intensifies the gruesome atmosphere, sobering temperament and traumatising feeling one gets. The rhythm pointedly embodies a rather banal symphonies and disruptive mien of disquiet that transports the reader to a nightmarish unconscious. The reading of the collection tends to evoke a state of violence and anomie that results in a mourning mood situation. This unpleasant situation is also necessitated by the myriad of tragic scenes and disastrous repercussions.

The persona appears avidly traumatised, and the audience of the delivery cannot feel less so. Nastrullah Mambrol asserts that "The concept of trauma, itself as a source of critique is generally understood as a severely disruptive experience that profoundly impacts the self's emotional organisation and perception of the external world. 'Trauma studies explore the impact of trauma in literature and society by analysing its psychological, rhetorical, and cultural significance" (2). Sequel to the above conceptual explication, the titles such as 'The Funeral Dirge', 'The grave lay unmarked', 'I dread your names', 'Dreams under siege', 'Graveyards of Dreams' and 'In the Scorching Desert Sun', the atmosphere is set for a journey round sites and situations of horror, accentuated by such images as 'morning houses and graveyards' in the milieu referred to as 'Maiduguri'. In the figuration of the surrounding situation, the notion 'maiduguri' in the artistic construct serves as the icon of postcolonial state condition.

Maiduguri is then deconstructed as a tumultuous, fragmented or disoriented universe which pronouncement elicits fear in the immediate poetic moments; a contrast to the pristine notion or reality of the glowing and flowering heritage that Maiduguri was supposed to project to the minds of people before now. In the four stanzas of 'Funeral dirge', the first line of each stanza of the poem begins rhetorically by screaming the word, 'Maiduguri!', and the words that follow serve to intensify the momentum and tension of what Maiduguri translates into since the upsurge of the

extremism. The multiple allusions, symbolic statements, coupled with the poet's power of eloquence and apparent intensity of vision sundry devices puts the metaphoric 'maiduguri' on trial in the court of history. The ancient ideals of peace, harmony, commerce and mutual equanimity that was the then 'maiduguri' has now been violated, distorted and disfigured. Maiduguri now lay moribund, having been turned to a site if obscenity. The third stanza of 'The Funeral Dirge' in the work sums up the 'maiduguri' in the personified case scenario that now appears to be grappling with prostrate condition:

Maiduguri!
I know an ancient city, a conquered land
Forgotten memory on tripod pillars
Peace- but disaster reigns like the stars at dark
Faith- faith of killer tanks
A caged history of celebration ambushed (3).

In essence, Maiduguri as captioned in its socio-historical context, personifies a universe of "*…barbed-wired, muzzled souls, unfettered cosmos…*" (3) where graves lay unmarked and the very name 'maiduguri' strikes a chord of fear and dreams botched "under siege" which now seems grossly aborted, "*Like sex-starved prisoner*" ('Dreams under Siege', 7).

The collection is arranged in five movements or sections and the labeling of each section, in some ways, portray the specific landmarks of particular trajectory of what 'Maiduguri' represents in the sensibility of the poet persona. Section Two opens with a statement captioned, '*A Tragic Heritage*'. The first poem in the section is entitled '*The Myth Has a New Name*' (11). Here the persona expresses the tragic circumstances that now define the notion of 'maiduguri' as victim of cannibalistic ambush, and for that reason, 'maiduguri' has become a myth and riddle, inundated by a shaming condition which the persona describes as 'halitosis' – '*a condition of a fetid breath*' about which the persona does not hide his traumatised state, as he meditates on his feelings thus: "*For I have wept on the cradles of ancient faiths*" (11). Maiduguri as portrayed by the persona is 'a tragic heritage' for those who still remember what it symbolised before the ambush of terror brought it to the present state of captivity.

The other poems continue to intensify the gloomy and death imagery of an obviously ravished heritage and environment. The many troubles that conspire to bring 'maiduguri' to the present deracinated state include the activities of those the persona described variously as '…praise singers in traditional songs/AK47 in each hand"; with brutal agents tagged as: "Boko Haram, excrement of imported gods in penitence" (12-13). The violators are described as renegades of imported gods that have stripped the natives of their identities and then made infidels of the pre-islamist ancestral natives, who freely embrace the ancestral spirits, who knew no violence of cohesive worship. The captive universe in context has been brought to its knees, and is now located at "…crossroads of Civilization" (14), having been fatally seduced by "…the pestilence that strikes at night" (15). Tragically the persona insinuates that 'maiduguri' has become associated with 'Poisoned rain', and that 'Hiroshima' and 'Nagasaki' are her namesakes ('Poison Rain', 16). It now lays 'forlorn hope', overrun by 'holy murderers' (19); who relish in bloodsheds and fiery, maddening rampages. Maiduguri symbolises anguish of perfidy, fragmentation, treachery and disillusionment which is symptomatic of a typical postcolonial condition.

In section three of the collection sub-headed 'Beyond Dreams,' the searchlight stretches the poetic binocular beyond a specific locale that implicates 'Maiduguri' as a microscopic setting, to take a continent-wide landscaping of postcolonial African sphere. In this historical excursion, the persona remembers the many tragedies that have befallen postcolonial African history. He invokes memories of Samuel Doe's Liberia and reflects on the travesty of the birth of Biafra in the annals of postcolonial history. Also, he meditates on the various legacies of alienation and mutual transgressions that continue to wrack memories of what has become of the postcolony and points at the hopeless state of the moment, while decrying the solitude situation of the larger humanity at the moment. The persona on the other hand, eulogises the heroes of the failed attempt at redeeming postcolonial societies from the humiliation of history, invoking Jonas Savimbi with a sense of pride. This sensibility is actualised in the poem 'To Jonas Savimbi':

Man of the African jungles
Man of subdued deep sea
Whose bowels echoes lust for name (33).

Reading down the lines, the persona seems to indict international imperialism and their internal collaborators as agents responsible for the truncation of sustainable development that has birthed the multifaceted crisis that bedevil postcolonial societies. In this poem therefore the persona regurgitates on the obvious state of anxiety, while musing on the many travesties of postcolonial history. From the third stanza of the same poem the persona reflects on these interrupted memories thus:

I dreamt of Museveni
Charles Taylor and Fidel Castro

In my dreams subdued by floating moon
Across my rusty verses and lakes
Sweeping over the Sahel, winding path…

With songs for Samora Marcel
Harvesting victory at last in the wind…
Blueprints for peace in Africa?
See Taylor, lovers I hide and seek
And they killed Gaddafi
Meditate on the drumbeats
Of Laurent Kabila against cattle rustlers
Ponder on the lifestyle of Marechera…

A war against our peace…
With western civilisation swarming the creeks…
Riddles and mysteries are tag
And launching pad… (33-34).

These lines vividly echo the contrastive symphonies of the back-and-forth strutting of postcolonial African states in the perennial struggles to find footings of true independence in the face of western meddling that have contributed to interlock the erstwhile colonies to the apron strings of the former colonial powers which has resulted in instabilities and underdevelopment that characterize the postcolonies. The lines above constitute the riddles and mysteries of instability, misrules, arrested development and sundry tragedies that define postcolonial African states.

In the fourth movement tagged 'Deserted Homestead', the persona intensifies his authorial voice of lamentation and gloom over a universe that has been estranged through many seasons of vicissitudes. There have been landmarks of setbacks, paradoxes and illusionary hopes. He touches on "crumbled" value system and moral poverty that bedevil his imagined landscape; an environment that is entangled in a circle of "Uncared for cemeteries/Without mercies, powerless prayers…" ('Our Forgotten Shame', 54), and haunted by the grueling despair and frustration unleashed on the living by forces of imperialism and terror. But the poem 'Lament for My Land' caps it all with statement such as "… the drifting seasons:. "…blood is raining"; "…highways of death/where youths, children of several seasons/lay wasted" (56-57). These and such dreary images keep reverberating through the lines in the verses that make up the anthology.

The last section of the collection captioned 'Twilight Dirges' raises yet a higher tempo of outcries over complicated crises that have brought the traditional world order of equanimity to the present state of near anarchy in most of the African postcolonial spaces. The first poem in this section titled 'The Virus', reimagines the origins and conditions that paved the way for the incursions of alien cultures and religions from the western and eastern world into Africa; an experience that brought in strange, alienating and violent religions with their credos of imposition and rule of force. In most cases, the enthronement of alien values were done by forces of arms or by inducement which all tended to blacklist everything indigenous to African people. In the first stanza of 'The Virus' the persona raises his solemn dirge to lament the prevalent situation:

They came from distant lands and from across the sea and from across the desert
From the East, they swarmed over, and from the West
They pulled her down, her rapists
Peals of thunder echoed her voice
Agonising centuries of inhumanity…
('The Virus', 76).

The above extract tries to buttress the repercussions of imperial contacts that have brought most of the now postcolonial Africa to the present crossroads. These include imported religions, cultural worldviews and ideology which continually induced violence that stalk the landscape and truncate sustained socio-economic development.

The next two poems namely 'Requiem Maiduguri' and 'Twilight Elegy' bring the dirge on Maiduguri to what reels like a crescendo. In the first situation, 'Requiem Maiduguri' raises the tempos of the murning song and laments afresh the strident forcefulness towards a pausing limit. It reflects again the tempo of the mourners' gathering, just as the poet seems to take another glance across the graveyards with mix affection in the face of the scattered, unmarked gravesides that adumbrate this landscape:

I shall write you a poem
I shall sing you a dirge at twilight
Tears rolling through the night
I shall observe the various Stations of the Cross
My sweats thick like blood
Like Jesus on Golgotha.

So the AK47s came
Mass burials, the bulldozers
The onlookers, silent carnival
Burial of humanity… ('Requiem Maiduguri', 78).

This is a solemn memorial enacted with great grief for a universe that has become notorious for bloodsheds, tragedies and disasters which is continually so for over a decade of horrible agony and unending despair despite great prices that have been paid to redeem the metaphorised maiduguri from her seemingly irredeemable state of sickening experience. In the

same temperament, the next poem 'Twilight Elegy' gives another, but yet, related angle of perspective on what makes sense to the world as postmodern Maiduguri. This sounds like a photographic passing glance where the zoomed sphere reveals the broken pieces of a world that is captured in the lenses of the observer.

Their bones lay scattered
Scattered on the balcony
Awaiting mourners
Humanity lay in mystery chemistry
Waiting for burials by installments…
('Twilight Elegy', 79).

This dirge is an addressed to what appears like a deserted homestead where the inhabitants seem to have taken flight, having abandoned the otherwise rich and glowing ancestral heritage to vampires who have continually raped their homes, farmlands and place and have continually laid siege on her hitherto warm and welcoming environment, leaving on their heels trails of blood, broken skulls and unmarked graves. Hope of recovery and reparation seems to have been lost and the dirge elicits the depth of the prevalent nostalgia, disillusionment and despair on the whole place.

The poet who can be said to be an avowed optimist and positively forward looking, ends the anthology with a breathe of hope and optimism. He tends to see the future as bright by feeling that the sordid situation of things that exists will improve as he is confidence that there will be bright future at the end of the tunnel. The last poem in the anthology entitled 'And the Gods Shall Clash in the Street', turns prophetic. The audacity of the rendition is obvious and seemingly grounded on the persona's feeling of patriotism and nationalism. The poet persona's temerity and outburst seem predicated impliedly on what could be considered his abided faith in his society and the anxiety over the direness of the moment captured in the renditions. The lines sound both elegiac and audacious, just as the onus of the poetic statement on the other hand elicits courage on the path of the victims as well as the persona who seems to still nurture hope that time could spring up reawakening in the minds of the subjugated and compel them to resort to drastic actions toward a restoration or historical self-recovery and awareness even if it comes through confrontation "in the streets" as the persona seems to insinuate, so that the lost glory and self-esteem of a ravished 'maiduguri' might be restored regardless of the travesty and despair of the present situation. The first stanza of 'And the Gods Shall Class…" is captured thus:

And the Gods shall clash in the streets
Though they kill us by our sacred forest
They shall have our vanquished voices strip their vampire
The stars shall be our guide… (85).

The extract here points at the role of the poet as a motivator, a social mobiliser and a teacher of the way out of the present malaise, seer or visionary and as a role model in the project of redeeming human dignity that has been badly disoriented, disfigured and abused owing to the hangovers of colonial encounter and imperialism in the subjugated and disoriented African postcolonial societies.

3. Conclusion

The above analysis extrapolates specific repercussions of socio-political and cultural imperatives of postcolonial crisis and the perspective of artistic interventions in the discourse of human liberation, social reengineering of the universe and prospects of realising purposeful and dignifying existence among a disoriented people. The tone of the poems analysed elicit historical memories that intertwines contemporary crisis of extremism that further aggravate the sorry state of postcolonial African societies. Furthermore, the analysis engages the artistic strategies of commitment to human value and dignifying social evolution of societies in the pursuit of a better world order, and in opposition of the present condition of religion or ideology-induced wars, human suffering and the prevalent near anarchy situation of most postcolonial African states, where terror and horror, power tussle, weak governments and uncertainties have remained daily companion of the majority of the people. It is important to note that the engagements with the present reality are anchored on the need to awaken creative consciousness towards addressing the multifarious malaises that bedevil postcolonial Africa; where existence from state to state has become continually brutal, harsh, appalling and despairing with heavy toll on the part of the toiling millions of people whose daily existence has become highly excruciating, especially for the vulnerable and the direly disadvantage victim of the confusing situations.

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Request as a Speech Act: A Study of the Features of the Spoken Nigeria English

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Abstract. This study examines Request expressions as speech acts in Spoken Nigerian English. Subjects for this study were drawn from the University of Port Harcourt. Data for this study were collected from two different speech interactions, namely: face-to-face conversations (FTFC), telephone conversations (TC). The researcher made use of a mini-tape recorder and note-taking method for data collection. Here, Corpus of conversations were selected using purposive sampling method and surreptitiously recorded at strategic points. This enabled the researcher to collect the Corpus in its original form. The Corpus for this study was collected at different points where the students meet: lecture halls, hostels, canteens, relaxation centres among others. From the data collected through a purposive sampling method, request expressions were isolated and used for the analysis. The framework for the analysis of this study is provided by the speech Act theory. Frequency of the distribution between the male and female subjects, were calculated using the mean statistical method and subsequently represented in bar charts. This study found out that beyond the main function of request, it also performs an array of other functions. Data have also revealed that the multilingual situation in Nigeria has affected the choices of language use, resulting in features such as code-mixing, slangs, Nigerian English-based pidgin, among others. This study has specifically shown that apart from the usual function of request, it also performs an array of other functions. Therefore, this study concludes that with regard to the selected speech act, the co-existence of English with other indigenous languages has given rise to linguistic patterns and forms, identifying Nigerian English as a distinct variety of the world Englishes.

Keywords: Request Expressions, Speech Acts, Nigerian English, Gender Difference.

1. Introduction

In every language and tribe, there are specific rules for interpreting messages communicated verbally or non-verbally. A speech community could be seen as a group of people who share a common language, dialect and communicates with same. Wardhaugh (2006) observed that "conversation involves much more than using language to make propositions" (p. 280). The author upheld that there exists an establishment of relationship with others when there are some forms of co-operation amongst members of the speech community for greater relationships through communication. In years past and in recent times, several studies have been carried out in the area of conversational routines. These include: Aijmer (1996), Liu (2004), Utin, (2017) and others. These writers were concerned with varieties of English Language such as the national varieties of English like British English, American English, New Zealand English, Indian English, Nigerian English among others.

However, in a situation where two or more languages come in contact, there is a tendency for cultural and linguistic interference. This is the case in Nigerian English with reference to conversational routines of requesting. In this routine, there are transfers of some socio-cultural habits and traits expressed by Nigerian speakers of English. Issues like, kneeling down, bowing, praying for the person and many more are employed as way of requesting in Nigerian English. In addition, there are also the issues of introducing the Nigerian-English-based pidgin, use of slang, code-mixing/switching by Nigerian speakers of English to make requests.

Abdullahi-Idiagbon (2007) quoted in Utin, 2017 observes that:

In Nigeria, code-mixing is now a common phenomenon both in Urban and Rural settings. It is more common in Urban areas due to the complexity, heterogeneity and density of the areas. Indeed, we are at the threshold of a language shift where the ability to speak an indigenous language continuously, for a minute, is a difficult test to pass for the Nigerian elites (p.2).

For instance, expressions such as, *"Abeg, carry that chair for me",* "Can you give me your pen", "I want to stop here, please, drop me", *"Biko nyem your pen?"* are either code-switched or code-mixed to express request. Requesting about one's state of being could be shown in the following examples, "*How far now?", "How you dey?," "How una dey?"* and many other varieties. In the course of this study, many more varieties were discovered.

Conversation serves as a life wire in every speech community. This is because without people communicating or interacting with one another, the world itself would be a lonely place. Conversation helps us to establish relationships with friends, spouses, colleagues and many other people in our speech communities. It has been observed that the speech habits of any community cannot be fully ascertained without examining the linguistic routines of that language (Hymes, 1962, in Utin, 2017). The source also observes that the analysis of routine includes, "Identification of idiomatic units, not only greeting formulas and the like, but also the conversational significance for an individual, group or whole culture" (Utin, p.3). It has been observed that in our everyday interaction, a great deal of communicative activity is experienced, consisting of enacting routines that make use of prefabricated linguistic units in a well-known and generally acceptable manner.

In a socio-cultural context like Nigeria and with the diverse linguistic backgrounds, language use experiences a lot of influences. Some of these influences hinder the free flow of conversation. Jaszczolt (2002) observes "if the maxims are breached or ostentatiously flouted, the hearer infers that the speakers must have meant something else, that is, the speaker must have had some special reason for not observing the maxims" (p. 212). In breaching or flouting the maxims of conversation, the speaker causes the hearer to either understand or misinterpret what was intended. In addition, let's examine this of conversation:

1. A) Give me your pen, I want to write
   B) Did you give me any pen; can't you just be polite?
   A) Okay! Please give me your pen.
   B) You may have it.

In this conversation, 'A' gave a command to 'B' instead of making a request. B demanded a more polite approach to requesting. On that note, 'A' reluctantly presented what sounded like a request by using "please" just to get what he wanted.

Requesting expressions are basically used to get people to do things. For this reason, this research examines the spoken forms of requesting in Nigerian English.

Specifically, the researcher observed that some Nigerian speakers of English do not take into consideration the maxims of conversation. In requesting, some Nigerian speakers of English either violate or flout the maxims of conversation, code-mix or use slang as highlighted in the background to the study. The researcher observed that some requesting expressions are not polite in terms of choice of words. They do not also take into consideration issues of appropriateness and politeness of such expressions. Example:

Conversation 2
A) I want to use your umbrella
B) Take naa, I will soon go home.
C) Thanks, I'll be back soon.

In conversation 2, the speaker introduces the Nigerian English-based pidgin "take naa" to respond to the request made. Also, the expression "I want to use your umbrella", lacks element of politeness.

As a corollary, it is needful to know what conversational routine really is. Should the maxims of conversation be observed? Does gender have any influence on the use of conversational routine of requesting in Nigerian English? Does educational background influence the use of these speech acts by Nigerian speakers of English?

2. Research Methodology

The data for this study was collected through a face-to-face (FTFC) conversation and telephone conversations (TC). Varieties of conversations were selected through a purposive sampling method and surreptitiously collected using a mini tape recorder. A total of three hundred and ninety-seven (397) request expressions were isolated from the corpus of conversations collected. Subjects for this study were taken from the University of Port Harcourt. The choice of this school was as a result of being a federal University. The results were calculated using the mean and bar chats.

3. Theoretical Framework

Speech Act Theory is associated with a British Language Philosopher, known as J.L. Austin (1911-1960). Speech Act is an act performed by a speaker the moment he/she makes an utterance. As one of the working theories in pragmatics, Speech Act takes into consideration functions of utterance such as thanking, apologising, requesting, complimenting, commanding, promising, among others. Jaszczolt (2002) observed that:

The unit of linguistic communication is a speech act, not a sentence or utterance. This is an act that depends on the intentions of the speaker and the hearer. Speech acts are little like physical acts (hitting a ball) and a little mental acts (imagining hitting a ball) (sic) they are used to perform various functions, such as these, to convey information, to ask for information, to give orders, to make requests, to make threats, to give warnings, to make bets, to give advice, to make a promise, to complain, to thank (p.294-295).

It therefore follows that speech acts either assert a fact or do 'something', bring about some change in the world. As a result, Austin's terms for these two categories are performatives and constatives utterances. While performatives refer to the act of doing, constatives refer to statements and assertions. Further categorisation of the performative result in explicit or implicit or primary speech acts. Explicit performatives contain verbs such as promise, warn, thank, reject, congratulate and apologise. In this regard, examples such as the under listed exist:

I thank you for all that you have done
I promise that I will see you tomorrow

Moreover, implicit meaning refers to the linguistic context in which a particular expression occurs. For instance, the situation in which the utterance is produced can cause the hearer to understand what is being said. In conversation, where the interlocutors are physically present and interacting the speaker needs not bother himself with providing much detail. This results from the fact that quite a lot of information is implicitly conveyed. In the course of their interaction, information could be rendered through the non-verbal cues such as nodding of the head, facial expressions, hand movements (gesticulations) and so on. In addition, the shared previous knowledge or common cultural backgrounds between the interlocutors also play an important role in understanding implicit meanings. At this level, certain aspects of meaning are taken for granted because the interlocutors share similar background knowledge of the subject-matter. Furthermore, the linguistic context in which a particular expression occurs also helps in understanding the implicit meaning. This sort of meaning is understood from the surrounding linguistic environment in which the utterance is made. Aijmer (1996) observed that conversational routines are phrases which, as a result of recurrence have become specialised or 'entrenched' for discourse function which predominates over or replaces the literal referential meaning (p.11). Conversational routines of thanking, complimenting, requesting and apologising recur in social interactions at all levels of conversation and communication. As a result, the framework for the analysis of conversations is mainly provided by the Speech Acts theory.

4. Literature on Nigerian English

In Nigeria, English performs a variety of functions ranging from formal to informal. It is used by preachers, medical personnel, pressmen, lawyers, advertisers, military men, students among others. The many years of English co-existence with the indigenous languages has led to the observation by Udofot (2007) that:

The many years of co-existence of English with Nigerian languages and its use for expressing Nigerian experiences and situations has resulted in English developing linguistic patterns that have identified it as a distinct variety of world Englishes (p.7).

The above observation indicates that in relation to all language contact situations, the varieties of English spoken in the new area have been found to be different from the one spoken in England. For example, there are varieties like: Indian English, New Zealand English, Singaporean English, Ghanaian English, Nigerian English, etc., all resulting from English coming in contact with these languages. In all these Englishes, it is worthwhile to note that they are adequate for the communicative purposes of the speech community and also meet the sociolinguistic needs of their new environment.

In a multilingual situation like Nigeria, request expressions have been influenced by the indigenous languages, resulting in code-mixing, code-switching, pidginisation and so on, to suit the Nigerian situation. It therefore indicates that there is a Nigerian English which is different from other varieties of Englishes due to its presence in the new environment. Interestingly, many scholars in the field of English in Nigeria have acknowledged that the sort of English spoken and written in Nigeria has adapted to the Nigerian environment. Such scholars include Jowitt (2000), Udofot (2007) and Utin (2016, 2024). Furthermore, Ogu (1992) observed that "the varieties of English spoken by educated Nigerians, no matter

what their language is, have enough features in common to mark off a general type which may be called Nigerian English" (p.88). The growth, development and spread of the English language in Nigeria, through wide usage, have resulted in what is known as Nigerian English. The fact remains that there is a variety of English known as Nigerian English, because it sets apart a speaker from other speakers even at the international level.

5. Conversational Routines of Requesting

Many studies on request have their emphasis on direct and indirect request and the derivation of indirect speech acts from direct speech acts. It should be observed that there are linguistic forms such as 'will you', 'can you', which can be seen as fixed patterns or 'routines' and can be analysed with respect to grammatical and semantic structure, function, style and situation. Moreover, it is glaring that most of the time we know what people mean because of what they say. Stubbs for instance wrote:

Any discourse analysis must integrate an account of what is said into an account of what is done: first, because otherwise we have no realisation rules or recognition criteria for underlying categories, second, because speakers themselves are condemned to stand by what they say, not by what the mean or intend. (1983: p.177f).

This suggests that speakers should be mindful of the choices of utterance they make as they could be misunderstood. Most writers in indirect speech acts have remarked on the role of politeness. Searle (1975), for instance, wrote:

In the field of indirect illocutionary acts, the area of directives is the most useful to study because ordinary conversational requirements of politeness normally make it awkward to issue flat imperative statements (e.g. Leave the room) or explicit performative (e.g. I order you to leave the room), and we therefore seek to find indirect means to our illocutionary ends (e.g. I wonder if you would mind leaving the room). In directives, politeness is the chief motivation for indirectness (p. 64).

In addition, the author highlighted the different conditions for requesting (Searle 1975: p.71) (where S = Speaker, H = Hearer, A = the future action)

Preparatory condition: H is able to perform A.
Sincerity condition: S wants H to do A
Propositional Condition: S predicates as future act A of H.
Essential condition: counts as an attempt by S to get H to do A.

In the same vein, Ervin – Tripp's (1976) study of the social implications of indirect request and order in American English concludes that speaker to calculate issues of social power and politeness in farming speech acts.

Indirect request expresses pragmatic or functional ambiguity. Requests are categorised under the directive speech acts. Directives are mainly concerned with getting people to do things. The speech acts which express directive force vary in strength. For example, we could attempt to get people to stand up by requesting, suggesting or inviting them to do so, we could also do same by either ordering or commanding them to do. Orders and commands are speech acts which are generally expressed in imperative form.

Requests should be polite in their choice of language. Holmes (2008), observed that polite attempts to get people to do something tend to use interrogatives or declaratives, as the following examples illustrate:

Sit down	Imperative
You sit down	You imperative
Could you down?	Interrogative with modal verb
Sit down, will you?	Interrogative with tag
Won't you sit down?	Interrogative with negative modal
I want you to sit down.	Declarative
I'll like you to sit down	Declarative
You 'll be more comfortable sitting down	Declarative

The author further asserted that in general the interrogatives and declaratives are more polite than the imperatives. In addition, the author noted that a great deal depends on intonation, tone of voice and context. The source also observed that a gentle 'sit down' may be far more polite than a thundered 'I want you all sitting down now'. In requesting, the degree of politeness varies depending on the setting and on the role the speaker has at the moment. As a result, the extent of politeness expected in requesting could vary depending on the context and the level of familiarity existing between the interlocutors, social class and status.

6. Data Presentation

Table 1: Request Functions/Features of Expressions in Nigerian English

S/N	Request Features in Nigerian English	Types of Expressions	Frequency	Male	Female
1.	Permission question	a) Please may I …	3	1	2
		b) Can I (we) …	7	3	4
		c)Let me…	2	1	1
2.	Anticipating gratitude	a) I'll be grateful if you …	6	4	2
		b) I'll be glad if …	5	3	2
3.	Instruction	a) Come to the church, it'll be rewarding	3	1	2
		b) Hug me! I love you!	2	2	0
4.	Hearer's ability to do something	a) Can you…	7	3	4
		b) Can we …	5	2	3
		Will you …	3	2	1
5.	Asking Wh– Question	Why don't you …	10	3	7
		What about …	5	1	4
		Why not …	6	2	4
		Where have you been …	4	2	2
6.	Appropriateness of the desired action	You need to …	6	1	5
		You should …	4	3	1
		I think we …	2	1	1
		I (you) should (need to)…	3	2	1
7	Availability of the desired object	Is … in the room, (class, office …)	15	6	9
		Do you still have airtime in your phone	10	3	7
		Is that the …	5	2	3
8	Willingness or objection to doing something	Would you mind (like) …	3	1	2
		Do you mind if …	7	3	4
		Aren't you going (coming) to …	2	1	1
		Will you …	6	1	5
		Wouldn't you …	3	1	2
9	Suggestion	I think … is better	5	2	3
		I hope you wouldn't mind if …	3	1	2
		What if you do …	6	3	3
10	Expressing a wish	I wish you could …	2	1	1
		I would like you to …	3	1	2
		I wish I could …	2	2	0
11	Requesting as a plea	Please, may I …	15	7	8
		Could you please …	6	3	3
		Please send me …	4	1	3
12	Negation as a request strategy	Don't you have …	6	3	3
		Haven't you …	3	1	2
		Can't we …	2	2	0
13	As a question	How may I help you?	1	1	0
		Are we meeting today?	3	1	2

		Is that the …	6	4	2
		Who do you want to speak with?	6	3	3
		Do you want to …	4	2	2
		How can I help you?	5	2	3
		What do you have…?	7	2	5
14	Nigerian English-based Pidgin	*Abeg*, give me that …	6	4	2
		Where you dey…?	5	4	1
		You don buy…	4	3	1
		You get …	4	4	0
		You fit arrange	4	4	0
		You fit dash me…	4	4	0
		I dey hungry you get …	5	3	2
		Abeg can you wait for …	3	1	2
		Abeg come over to …	5	2	3
		Wetindey happen	3	3	0
		Yawa don gas?	2	2	0
		How far now?	16	12	4
		How you dey o?	3	2	1
15	Nigerian English	Please Sir/Ma sign…	20	10	10
		I want …, please	9	4	5
		Can I speak with …	4	1	3
		Can you hold on please…	5	1	4
16	As an invitation	Come to the …	3	3	0
		I hope you would not mind coming to …	5	4	1
		Come over to …	6	3	3
		Please come over to …	3	3	0
17	Code-mixing/ switching	*Biko give me …*	3	1	2
		Give me your … mbok	11	10	1
	Total		355	185	170

Table 2: Codes for Request Functions/Features in Nigerian English

S/N	Request Features in Nigerian English	Codes
1.	Permission question	PQ
2.	Gratitude	AG
3.	Instruction	INS
4.	Hearer's ability to do something	HAS
5.	Asking Wh – question	AWA
6.	Appropriateness of the desired action	ADA

6.1 Results of Request Functions/Features in Nigerian English

From the results of request functions features (RFF) in Nigerian English, it has shown that Requesting as a plea had the highest mean point of 10.5, followed by Availability of the desired object with a mean point of 10. Nigerian English had a mean point of 9.5 while Nigerian English-based Pidgin had a mean point of 9.2. In addition, Code-mixing/switching and Asking Wh Question had a mean point of 7, and this was closely followed by Hearer's ability to do something with a mean point of 6.0, anticipating gratitude with a mean point of 5.5. Requesting as a suggestion had a mean point of 4.66, while requesting as a question had a mean of 4.5. The result also showed that request as an

invitation had a mean point of 4.25 and willingness or objection to doing something had a mean point of 4.2, while permission question had a mean point of 4. Appropriacy of the desired object and Negation as a request strategy both had mean points of 3.75 and 3.66 respectively. Finally, for request as an instruction and expressing a wish as request function, there were mean points of 2.5 and 2.33 respectively.

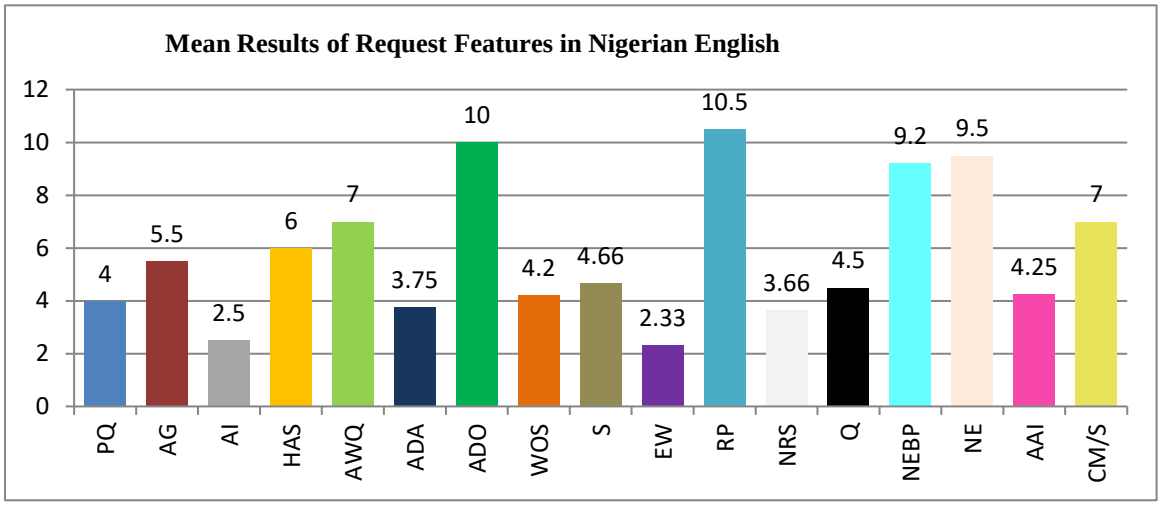

Figure1: Mean Results of Request Features in Nigerian English

Table 3: Gender Differences in the Use of Requesting Expressions

S/N	Request Features	Male	Female
1	Permission question	1.6	2.3
2.	Anticipating gratitude	3.5	2.3
3.	As an instruction	1.5	1
4.	Hearer's ability to do something	2.5	3.5
5.	Asking Wh – question	2	5
6.	Appropriacy of the desired action	3.5	1
7.	Availability of the desired object	3.6	6.3
8.	Willingness or objection to doing something	1.4	2.8
9.	As a suggestion	2	2.6
10.	Expressing a wish	1.3	1
11.	Requesting as a plea	5	5.5
12.	Negation as a request strategy	2.2	1.6
13.	As a question	2.1	2.4
14.	Nigerian English-based Pidgin	10.0	3.5
15.	Nigerian English	4	5.5
16.	As an invitation	3.25	1
17.	Code-mixing/switching	1	6

6.2 Result of Gender Differences in Requesting Expressions in Nigerian English

The total mean points of the gender differences in the use of requesting expressions show that the female subjects had 2.94 while the male subject had a mean point of 2.79. The table also shows that expressions pointing toward availability of the desired object had a mean of 6.3 by the female subjects and 3.6 for the male subjects. For the use of Nigerian English, the male had 4 points while the female had 5.5 points. In requesting for the availability of the desired object, the male had a mean point of 3.6 while the female had 6.3. With regards to requesting as a plea, the female subjects had higher mean points of 5.5 while the male subjects had 5. Furthermore, asking Wh – Question as a request strategy shows that the male had a mean point of 2 and the female have 5 points while request as an invitation shows that the male subjects had a mean point of 3.25 and the female subjects had 1. The results for Negation as a request strategy indicates that the males had 2.2 mean points and the females had 1.6. Also, using Nigerian English-based Pidgin expression as a request strategy recorded the highest mean points of 10.0 by the males and 3.5 points by the females. For appropriacy of the desired action, the male subjects had a mean score of 3.5 while the female counterpart recorded a mean score of 1. Furthermore, for permission question and request as an instruction, the male subjects mean points were 1.6 and 1.5 while the female mean points were 2.3 and 1 respectively. The result also shows that for making request as a question

and as a suggestion the females had mean points of 2.1 and 2, while the male subjects had 2.4 and 2.6 respectively.

7. Discussion of Findings

The above analyses have shown the different functions, types of expressions that feature in the Nigerian English requests. To start with, this study has revealed that features such as Code-mixing/switching, Nigerian English-based Pidgin and slang are characteristics of languages in contact, a clinical example of English in Nigeria. The analysis has shown indicated that the speech acts of requesting and complimenting are context dependent; this is because from the data presented in Table 1 for requesting, there are variations in the types of expressions despite the fact that there are some shared similarities in the functions. For example, if we consider the expressions on code-mixing/switching in requesting, the expressions show that this speech act is context dependent, corroborating Akindele (1990) assertion that speech acts are context dependent and that failure to express such at the appropriate time and context leads to ill–feeling. This is sequel to the fact that the expressions used for this speech act are different but some are peculiar to the specific acts. For instance, request expressions in Nigerian English-based Pidgin are peculiar to the context in which they are used the same heading or features, 'Abeg! give me that thing', is a command in the form of a request. 'Abeg', does not change the tone to give it the status of a request. However, from our data, such was seen as a request expression. Basically, the social function of request consists in getting the hearer to do something for the speaker (Searle 1969, p.66) which makes them beneficial to the later and costly to the former. Consequently, it can be seen as Face Threatening Acts (FTA) since it is costly to the addressee. The finding in this study does corroborate this assertion as request sometimes does not necessarily involve the hearer directly, that is, the hearer would not be the one outrightly performing the said action. For example, there were items like 'Could you please tell (inform) … to come over to ….' In this instance, the hearer is merely carrying out an instruction to the one who will then undertake the action of the request. In this case, the hearer serves as a channel and not really the doer of the action and as such may not threaten the face of the hearer as he or she in the action to be taken.

Other features of request in Nigerian English include expressing a wish that the hearer should do something as shown in Table 1 item number 10 (a,b,c). These examples are basically those of expressing a wish towards carrying out an action. These expressions were either used as explicit request strategy while in some cases they were used as request response. For example, 'I would like you to help me with some money to pay my school fees', serves as a request while 'I wish I could help you' is a response towards an indirect request such as the one illustrated above. Also, negation as a request strategy is an indirect way of making a request but the problem associated with this strategy is that it may sometime be seen as a question which could elicit a response without necessarily following up with any action as peculiar to requests. This is typified in Table 1, Item Number 12 (a,b,c) 'Don't you have …', 'Haven't you…' and 'Can't we …', 'Don't you have …', can be seen as indirect requests and as questions. The fact is that is that the hearer may choose to say 'I have' or 'I don't have' without giving a thought to the implied meaning of the expression, while as a request, the expression is expected to be followed by a response or an action. That is 'I have' should be followed by subsequently handing in the requested object, but where this is lacking, it points to an indirect speech act where the speaker communicates with the hearer more than he actually says by way of relying on their mutual shared background information together with the general powers of rationality and inference on the part of the hearer.

With regard to the Nigerian English-based Pidgin, there were varieties of request expressions as seen in Table 1 item no. 14 (a – k). The various expressions drawn out from the data fit into some of the different features of request presented in Table 1. For example, 14 (b and j) - 'Where you dey? and 'Wetin dey happen?' are requests in the form of question. Item 14 (f), 'You fit dash me …,' is equally a question which can be translated as 'Can you give me …' and this falls under the category of seeking the hearer's ability to do something. Another example is Item 14 (g) 'I dey hungry, you get …'. Here, the speaker states his feelings and makes a request. The above is translated as 'I am hungry, do you have …'. This points to the category of checking the availability of the desired object. Others include, 'Abeg, give me that ….' and 'Abeg, can you wait for me…' are both translated as 'Please give me that …' and 'can you wait for me, please' respectively. Despite the inclusion of the word 'please' in these expressions, they still increase the FTA effects because of the use of 'can' to introduce the expression which makes it a direct question instead of a request. The varieties of request expressions seen in this study with specific reference to Nigerian English-based Pidgin, are clear indications of languages in contact in a multilingual environment such as English in Nigeria. Furthermore, slang expressions and Nigerian English usage were also

isolated as exemplified in items No. 15 (a – b) and 16 (a – d) for slang and Nigerian English respectively. 'How far now?' is a slang expression meaning 'How are you? How's everything? How far have you gone with…etc. From the above interpretations, this slang expression can be used directly as a question and indirectly as a request.

8. Conclusion

The study set out to investigate the Spoken English in Nigeria with its focus on request as a speech act. It concludes that beyond the everyday use of request expressions, they also perform other functions. It was also discovered that gender plays an important role in the choices and uses of request expressions. It also revealed that the choices of the expressions made in conversations and social interactions are affected by the relationship of the interlocutors, context, the shared previous background, sex among other things. This confirms what Adegbija (2004) refers to as domestication:

The term "domestication", in the context of English in Nigeria, connotes "Home grown", "made native", "adapted and tamed" to suit the Nigerian Environment." We may also apply the terms "acculturation", "naturisation" or "indigenisation" with the same sense.

Requesting as a speech act performs different functions ranging from asking permission question, instruction, using negation, Nigerian English-based Pidgin and so on. The study has equally shown that in Nigerian English, request responses are sometimes given using questions. Despite the fact that this study did not specifically consider responses to this speech act as a major feature, it noted some of the peculiar ones like using questions to respond to requests. Requests, there were functions/feature such as expressing a wish, appropriacy of the desired action, hearer's ability to do something, permission question, requesting as a plea, code-mixing/switching. This study has provided answers to some of the research questions and hope to conduct a further study which will include the responses. Finally, this study has revealed that with regard to request expressions, the co-existence of English with other indigenous languages have given rise to linguistic patterns and forms, which are peculiarly Nigerian which identifies it as a distinct variety.

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