NIU Journal of Social Sciences

Nexus International University, Uganda.

Copyright © 2025 Nexus International University.

All rights reserved.

Apart from fair dealing for the purpose of research or private study, or criticism or review, and only as permitted under the Copyright Art, this publication may only be produced, stored or transmitted, in any form or by any means, with prior written permission of the Copyright Holder.

Published in September, 2025

ISSN: 3007-1682 (Print)
ISSN: 3007-1690 (Online)

DOI: 10.58709/niujss.v11i3

Published by:

Nexus International University,
Kampala, Uganda.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 3-4

Editorial

This edition of NIU *Journal of Social Sciences* focuses on Godfatherism, Ethnographic Study, Human Security, Entrepreneurship Mentoring Education, Psychological Distress as well as Effective Mental Health Service Utilization.

One of the papers, in this issue, reveals that godsons' preference for political survival above administration has a detrimental effect on public services and infrastructure. It also disclosed that political parties' financial limitations encourage corruption, erode internal democracy. It suggests therefore that electioneering campaigning funds should come directly from consolidated funds established by federal government; political parties in Edo State should implement transparent and democratic systems in candidate selection to eliminate the power of godfathers and the state government and relevant stake holders should develop long-term strategies for sustainable infrastructure development.

Another paper also reveals that interventions addressing depression and hopelessness, alongside programmes promoting resilience, social connectedness, and self-worth, are crucial for alleviating distress among unemployed graduates. It therefore, recommends multi-level approaches involving counselling, institutional support, and policy-driven initiatives to enhance psychological well-being and reduce the adverse mental health outcomes associated with graduate unemployment.

Readers are advised to make proper use of the ideas presented by the various authors in this issue of *NIU Journal of Social Sciences*. 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.

Professor Oyetola O. Oniwide

Nexus International University,
P.O. Box 70773,
Kampala, Uganda.

editor@niujournals.ac.ug

September, 2025.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 5-14

Assessment of Godfatherism and Internal Democracy on Infrastructural Development in Edo State, Nigeria

ABDULLAHI ALABI, MOSHOOD OLAYINKA SALAHU,
RASHIDA ADAMU OYORU
Kwara State University Malate, Nigeria

PAUL OLUWOLE ALABI,
Oyo State College of Education, Lanlate, Nigeria

Abstract. Godfatherism is a means through which the leadership of political parties is imposing the surrogate candidates into political positions for the purpose of serving interest on their behalf. Godfatherism and internal democracy in Edo State end up in rift to suspension, political conflict to defections, violence to civil unrest and litigations in the courts of law which have negative impact on infrastructural development. The study examines an assessment of godfatherism and internal democracy in Edo State. The target area of the study includes State Party Executive of All Progressive Congress (APC) and (PDP), Local Government Executive APC and PDP, Electorates APC and PDP, INEC, Academias and Civil Society. The study adopted analytical and descriptive research types and the study used primary and secondary sources of gathered data. The objective of the study is to examine the factors that contributed to the trend of godfatherism in Edo State. Findings revealed that, godsons' preference for political survival above administration has a detrimental effect on public services and infrastructure. It also revealed that political parties' financial limitations encourage corruption, erode internal democracy. Therefore, the study recommended that, electioneering campaigning funds should come directly from consolidated funds established by federal government; political parties in Edo State should implement transparent and democratic systems in candidate selection to eliminate the power of godfathers and the state government and relevant stake holders should develop long-term strategies for sustainable infrastructure development in Edo State.

Keywords: Edo State, Godfatherism, Internal Democracy and Nigeria.

1. Introduction

Since Nigeria got her independence, political surrogate or political godfatherism has been the tradition of politics and invariably leads to political crisis, such as godfather-godson conflicts, corruption and internal political conflict. Democracy, as a moral and legitimate means of governing a nation, has spread to many parts of the globe but it's yet to take root in Nigeria most especially in Edo State. That was why Ahmed & Ali (2019) opined that power of incumbency, influence, political thug, money politics, lack of political knowledge, selfishness, greediness, lack of publicity, over ambition, nepotism and politics of regionalization are among the factors that led to the politics of godfatherism in Nigeria. When the roads between the godfathers and godsons become rough and there will be tension all over the places, litigation in competent court of law, civil unrest, disunity and disharmony.

Edo State witnessed an uproar, rift, tensions and defection as a result of godfatherism and internal democracy that taken the centre stage between Adams Oshiomhole (godfather) and Godwin Obaseki (godson). Edo State is a state that no longer holds polls concurrently with general election. After Adam Oshiomhole second term in office as a governor, the battle to the seat of No 1 in the state was between the APC and PDP. Godwin Obaseki was the main challenger while Osagie Ize-Iyamu was a close ally of Oshiomhole. Both were handpicked by the godfather

and imposed on the party on the day of primary and Obaseki was declared winner of the primary and became governor after governorship election in 2016 with the strong support from Oshiomhole and Oshiomhole became the national chairman of APC. The marriage between Oshiomhole and Obaseki could not hold again and began to sink as a result of who control the party and who control the governance.

Therefore, Oshiomhole (godfather) was suspended by local wards executive and Obaseki (godson) and try as much as possible to use court to suspend Oshiomhole as the national chairman of the APC. In response, Obaseki was disqualified from APC governorship primary election because of academic credentials. Also, Obaseki defected to People's Democratic Party (PDP) in other to get his re-election ambition. Edo State Assembly inaugurated nine (9) out of twenty-four (24) members elected in other to weaken the strength of the godfather and Obaseki sacked eight (8) commissioners loyal to the godfather. Federal High Court in Port Harcourt stopped the National Assembly from interfering in the affairs of Edo State House of Assembly and vote of no confidence was passed by eighteen (18) Chairmen of the State Local Government Chapter on Oshiomhole and the House of Assembly sacked twelve (12) out of fifteen (15) lawmakers elected who were excluded from inauguration.

In the same vein, Godwin Obaseki and Phillip Shaibu were given waiver to become candidates for PDP governorship election as governor and deputy governor. Both were the governor and deputy governor respectively after defected from APC and PDP after the governorship election in the state. Invariably, before the end of the second term of Godwin Obaseki and Phillp Shaibu political marriage could not again and began to sink. Godwin Obaseki took another deputy governor Marvellous Omobayo after the 18 State House of Assembly found Phillip Shaibu wanting of gross misconduct and impeached him. Phillip Shaibu went court and Godwin Obaseki also went to court.

At end of the litigation and counter litigation the court ruled in favour of Phillip Shaibu as authentic and recognised deputy governor. During the rift between Godwin Obaseki and Phillip Shaibu, Phillip Shaibu defected from PDP to APC in other to reconcile with Oshiomhole who left four years ago. This was captured by (Igbini, & Okolie 2020:93) when he reinstated that multiple political parties, frequent and competitive elections, which would otherwise be called irreducible minimum requirements for democratic rule, have not resulted in a corresponding flourishing of fundamental liberal ideals that are vital to democracy's survival.

1.1 Statement of the Problem

In politics, according to the saying of Niccolo Machiavelli, the ends justify the means' some of the aspirants/candidates who might have money to finance their political activities and the failure of the parties to organized the political manifestoes due to financial incapacitation will run to the wealthy individual that the parties were built around to donate and subsequently dominate the party structures.

Imposition of candidates motivates the internal conflicts of political parties and thereby weakens both the development of the state and internal democracies. Galles (2011) contends that godfatherism may not consider the important of putting all the tenets of democracy into action rather the personal aggrandizement.

It has however been argued that various policies of the parties, campaigning and funding of the parties always cause troubles, rifts and tensions between godfathers and godsons and political party leaders Majekodunmi & Awosika (2013) and this may be due to the fact that godfather, godsons, stakeholders, gladiators and political party leaders always championing the course of getting who get what when and how according to Lasswell.

It has been debated that self-finance, wealthy aspirants and absence of strategies of political parties' influence party decisions on candidates Osayi (2015) and this may be due to the fact that there are gladiators, stakeholders and hierarchy of power that can determine what happen and what come to pass in the political parties.

1.2 Research Objectives

The general aim of the study is to do an assessment of godfatherism and internal democracy in Edo State while the specific objectives are to:

- examine the factors that contributed to the trend of godfatherism in Edo State.
- evaluate the role of party internal democracy on the relationship between the godfathers and the godsons in Edo State.
- investigate the impact of party financial incapacitation on internal democracy and how it affected infrastructural development in Edo State.

1.3 Research Questions

The study tended to answer the following research questions:

- What are the factors that contributed to the trend of godfatherism in Edo State?
- What are the roles of party internal democracy on the relationship between the godfathers and the godsons in Edo State?
- How does the degree of financial incapacitation affect internal democracy and infrastructural development in Edo State?

1.4 Research Hypotheses

H_{01}: Party financial incapacitation of political parties has no significant relationship on infrastructural development in Edo and Kaduna States.
H_{02} **:** Imposition of candidates has no significant relationship on infrastructural development in Edo and Kaduna States.

2. Conceptual Clarification

2.1 Democracy

World Bank (2017) argued that democracy is a form of government, a way of life, a goal or ideal and political philosophy. They opined that democracy can be referred to a country that has a democratic form of government and the word democracy means rule by the people. Seeing democracy as a way of life is questionable because a way of life includes culture and culture is total way of life such as dressing, eating, reading, dancing, speaking, moving, reasoning and others. Does democracy carry all these features? To what level has been democracy imbibe the features of dancing and eating?

2.2 Godfatherism

Alabi & Sakariyau (2013) opined that godfatherism in Nigeria particularly in its current form and character is distributive in nature. They saw political godfatherism as one of the factors that embedded democratic setting in Nigeria since first republic. They concluded that the recent activities of some Nigerian godfathers to be likened to attributes of mafianism and see the existence of godfathers as balance of power in the democracy. It is obvious that the character of godfathers has to do with distributive political and administrative power to the godsons and this singular act always end up in tension and violence between the godfathers and the godsons. Invariably, godfatherism is one of the factors that retrogressed the democratic setting and practices in Nigeria as Alabi & Sakariyau (2013) emphasized. The recent activities of godfathers are more than mafianism and cannot in any way balance political power in a democracy. What power does godson has in a state? What power does godfather has in a state? Is there any other power apart from counter balancing power from the godfathers or godsons? These are fundamental questions to be addressed before we can agree with Alabi & Sakariyau (2013) on godfatherism as a balance of power in a democracy.

2.3 Imposition of Candidate

Ogbe (2015) opined that Nigeria democracy is threatened by candidates' imposition by some powerful party leaders due to lack of political parties' internal democracy. He argued that though political party has made formation of representative democracy easier and possible via the instrumentality of election yet he sees Nigeria's democracy to produce incompetent leaders as a result of the imposition of candidate. Stakeholders, gladiators, godfathers and godsons imposed their preferred candidates on the political parties because of their wealth of experience in politicking. They are so powerful to the extent that they determine, shape and control all activities in the political parties.

2.4 Internal Democracy

Sindre (2016) emphasised that internal democracy is to be considered as an important factor of former rebel movements adoption to democracy. It is not only rebel movements that embracing internal democracy. Internal democracy is being embraced by clubs, societies, political parties and religious organization in their respective jurisdictions.

2.5 Political Parties

Berger (2017) explained that the principle of self-government through political parties as the corner stone of democracy has come to be regarded as a solution to the problem of nationality. He opines that the principle of nationality entails the acceptance of the idea of popular government. He went on to see the importance of principle of nationality to be undeniable. To what extent does self-government through political parties serve as corner stone of democracy? Majority of political parties across the Africa, particularly in Nigeria revolve around ethnicity with only a few preaching and carrying the element of nationality. In essence, political parties characterize ethnic coloration and the issues of nationality are nowhere to be found.

3. Empirical Review

Nkwede & Ibeogu (2024) wrote on political godfatherism and governance in a developing democracy: Insight from Nigeria. They used descriptive and content analytical methods to carry out their study. Their study discovered that godfatherism has threatened the country's nascent democracy since 1999. However, godfatherism did not threat nascent democracy in Nigeria alone, godfatherism makes governance problematic in Nigeria and it can be kind of spillover effect in other neighbouring countries.

Opone & Ikuni (2024) wrote on godfatherism and Nigeria 2015 general election: The case of Delta State. They used historical and analytical methods to carry out their study. One of their findings was that forcing the godfathers out of politics may be dangerous. The gap in their study is that if all relevant stakeholders in politics are call to order by observing all the tenets of democracy systematically godfatherism will be ameliorated.

Sapele & Jeko (2024) wrote on the implications of godfatherism and eliocentricism in Nigeria politics for national development. They used secondary means to carry out their study. Their finding was that godfatherism has very negative consequences and if necessary, steps are not taken, Nigeria's quest for sustainable national development would only be a mirage. The gap in their study is that they compared godfatherism with eliocentricism and their study focused national development whereas impact of godfatherism and internal democracy on infrastructural development compared Edo and Kaduna States.

Akpama & Ayomola (2021) wrote on internal democracy and political violence in Rivers and Bayelsa States Nigeria (201`0 – 2020). They used qualitative method to carry out their study. Their finding was that internal democracy had effect on political violence in Rivers and Bayelsa States. The study on impact of godfatherism and internal democracy on infrastructural development in some selected states in Nigeria compared Edo and Kaduna States.

Yahaya & Abba (2021) wrote on an overview of the implication of godfatherism in Nigeria politics. They used qualitative and descriptive methods to carry out their study. They discovered that godfatherism lead to inter party and intra party defections among the political parties and party members in Nigeria. The gap in their study is that godfatherism lead to litigations, civil unrest, disharmony and disunity among the political parties and parties' members.

Asaju (2023) wrote on infrastructural development and development administration: A retrospective. He used descriptive qualitative research and secondary data. His finding was that various infrastructures in Nigeria are in deplorable state and efforts at building modern infrastructure are still very insignificant. His study supposed to be infrastructural development and development of administration and economic because separating or removing economic from administration is an exercise in futility.

Koulaoum (2023) wrote on digital infrastructural development and inclusive growth in sub–Saharan Africa. He used four indicators of digital infrastructures and their components scope to determine their effects on inclusive growth. His finding was that inclusive growth in sub–Saharan Africa is enhanced by the number of individuals using the internet, the number of fixed broadband and subscribers, fixed telephone and mobile cellular subscription per 100 adults. He finding was that digital infrastructures enhance the level of inclusive growth in sub–Saharan Africa economies irrespective of whether the countries belong to the lower, middle- and upper-income groups. What will be the fate of numerous individuals in the rural areas that could not avoid the internet, fixed telephone and mobile cellular subscription serve as gap to be filled.

Piechowicz & Szymanek (2024) wrote on stabilisation of loose soils as part of sustainability development of road infrastructure. They used descriptive and analytical methods to carry out their study. Their finding was that soil stabilisation technologies significantly improve road strength and durability. The study on impact of godfatherism and internal democracy on infrastructural development in some selected states in Nigeria compared Edo and Kaduna States using road construction and water supply as reference.

Nickdoost & Jauad (2024) wrote on a comparative index framework for qualitative resilence assessment of road infrastructure system. They used case study to carry out their study. Their finding was that the framework cans effectively corresponding roots capture and track progress/ detritions in various resilence aspects. Their study was basically on road infrastructure while the study on impact of godfatherism and internal democracy on infrastructural development in some selected states in Nigeria used road construction and water supply as reference points.

4. Theoretical Review

4.1 Participatory Theory

The propounded of participatory theory of democracy was J. J. Rousseau in the 18th century and later promoted and developed by John Stuart Mill and G. D. H. Cole. The theory implied that political participation is indispensable for a just society. They emphasized that citizens have the opportunity to be involved in decision making on matter that affect their life. There are eight degrees of participation in the ladder of citizens participation. One is manipulation where party primaries among political parties are purely rubber stamp because the party leaders together with godfather had preferred candidate that will eventual emerged. Two is therapy where internal democracy is all about party supremacy anything outside party supremacy is nowhere to be found among the political party in developing countries.

Three is informing where the beauty of party primary is to inform the party members about the way forward to establish a true democracy through putting into practice what the party intend to teach and practice when they win the election but it is other way round. Four is consultation where there should be adequate consultation from the party leaders, godfathers, godsons, stakeholders and gladiators before, during and after party primaries but consultation is minimal as regard internal democracy of the political party. Five is placation where citizens are giving limited degree of influence in the process of internal democracy of appointing, nominating and electing the flag bearer of the party. Six is partnership where there is room for negotiation of better deals and opportunity which may be in form of positions, money (dollars and other hard currency) in exchange for full degree of participation. Seven is delegated power where the electoral body that has been saddled with the responsibility of overseer the conduct of the primary through the delegated authority collaborated with the dictate from the party leaders and the godfathers. Eight is citizens control where the level of citizens control during the internal democracy of political party is not feasible at all. There is no room for any control from the masses, citizens, electorates and party members, the controls come from the party leaders, godfather, godson, stakeholders, gladiators, electoral body, courts and of course the security officials. Some of the defect of the participatory theory are the participations are purely rubber stamp. There is minimal consultation during the participation. Disbelief in citizens capabilities to bear the greater responsibility and feasibility of participatory is not encouraging.

The knowledge of the theory helped us to understand that political parties is all about equitable distribution of positions, executives, resources, powers, and the recognition of the minorities. Also, it helped us to understand that there are different powers in political parties and how these different powers interchangeably and perform functions in the political parties.

5. Methodology

Research designs for the study were analytical and descriptive research types. Questionnaire, structured interview and focus groups discussion were used The study population included State Party Executive of All Progressive Congress (APC)) forty five (45); State Party Executive of People's Democratic Party (PDP) forty two (42); Local Government Executive APC thirty (30); Local Government Executive PDP thirty (30); Electorates APC thirty (30); Electorates PDP thirty (30); INEC ten (10); Academias from State University sixteen (16), Civil Society fifteen (15) from Edo State Nigeria making a total population of two hundred and forty eight (248). The samples size was one hundred and two (102) using Taro Yamane's formular. State Party Executive of All Progressive Congress (APC)) eighteen (18); State Party Executive of People's Democratic Party (PDP) seventeen (17); Local Government Executive APC twelve (12); Local Government Executive PDP twelve (12); Electorates twelve APC (12); Electorates twelve PDP (12); INEC five (05); Academias eight (08), Civil Society six (6) from Edo State Nigeria making a total of one hundred and two (102).

Respondents for the selected interview for the study included party chairmen of All Progressive Congress (APC) and People's Democratic Party (PDP) four (4), party secretaries of All Progressive Congress (APC) and People's Democratic Party (PDP) four (4), senatorial leaders of All Progressive Congress (APC) and People's Democratic Party (PDP) three (3), religious leaders three (3) and traditional rulers three (3) from Edo State Nigeria making a total of seventeen (17). Respondents selected for the focus group discussion for the study included old and educated male and female ten (10), old and uneducated male and female ten (10), youth and educated male and female ten (10), and youth and uneducated male and female ten (10) from Edo State Nigeria making a total of forty (40).

Instrument the study relied upon was questionnaire on assessment of godfatherism and internal democracy in Edo State Nigeria (AGIDIESNQ) while instrument

used for structured interview was assessment of godfatherism and internal democracy in Edo State Nigeria (AGIDIESNSIQ) and instrument used for the focus groups discussion was assessment of godfatherism and internal democracy in Edo State Nigeria (AGIDIESNFGDQ) and they were used to collate data from the respondents. The face and content validity test of the instruments were determined by Seniors Political Scientists and Statisticians in Kwara State University Malete, Nigeria.

6. Empirical Analysis

Factors contributing to the trend of godfatherism in Edo State

Table 1 showed the responses of the respondents on factors contributing to the trend of godfatherism in Edo State.

S/N	Statements	SA	A	SD	D	N	Total	Aggregate Response
1	There is a high cost of electoral campaigning and an insufficiency of party funding.	43 47.9%	40 44.4%	4 4.4%	2 1.2%	1 1.1%	90 100%	Strongly Agreed
2	There is weak political ideology and mass poverty among the party members.	27 30%	37 41.1%	14 15.6%	11 12.2%	1 1.1%	90 100%	Agreed
3	Low level of political elites and lack of patriotic leaders among the political parties.	31 34.4%	29 32.2%	14 15.7%	13 14.4%	3 3.3%	90 100%	Strongly Agreed
4	Military incursion in politics and absence of transparency, accountability as well as due process.	35 38.8%	21 23.3%	17 18.9%	10 11.1%	7 7.9%	90 100%	Strongly Agreed

Source: *Researcher's Field Survey 2025*

Table 1 above explains that, 43 (47.9%) + 40 (44.4%) = 83 (92.3%) agreed, while only 2 (2.2%) disagreed. This implies that the high cost of electoral campaigning and the insufficiency of party funding significantly contribute to the trend of godfatherism in Edo State. Also, Respondent 12_{Ed}, opined that, godfatherism is a situation in which someone is in charge of political activities trying to fix someone into politics and if the road is not good again, the next thing is to remove the person at all cost. (FGD, Fieldwork 2025). Nkwede & Ibeogu (2024) argued that godfatherism has threatened the country's nascent democracy since 1999 and Lotshwao (2009) sees internal democracy within the political parties as a threat to consolidate democratic state. *On whether there is weak political ideology and mass poverty among the party members.* Data collected revealed that 27 (30%) + 37 (41.1%) = 64 (71.1%) agreed, while only 11 (12.2%) disagreed. These findings show that weak political ideology and mass poverty among party members significantly contribute to the persistence of godfatherism in the state.

The role of party internal democracy in the relationship between godfathers and godsons in Edo State

Table 2 showed the responses of the respondents on the role of party internal democracy in the relationship between godfathers and godsons in Edo State.

S/N	Statements	SA	A	SD	D	N	Total	Aggregate Response
5	Godfathers utilize all their resources during the election campaigning and it affects infrastructural development.	38 42.2%	26 29%	18 20%	6 6.6%	2 2.2%	90 100%	Strongly Agreed
6	The fear of impeachment from office makes the sitting governor lack focus.	27 30%	35 38.8%	15 16.7%	8 9%	4 5.5%	90 100%	Agreed
7	There are always legal tussles between the godfathers and godsons in the State as a result of internal democracy.	27 30%	30 33.3%	17 18.9%	11 12.2%	5 5.6%	90 100%	Agreed
8	Godfathers received big contracts without executing the projects.	35 38.9%	23 25.6%	18 20%	10 11.1%	4 4.4%	90 100%	Strongly Agreed

Source: *Researcher's Field Survey 2025*

Findings from the second objective, which is to evaluate the role of party internal democracy on the relationship between the godfathers and the godsons in Edo State. *On whether godfathers utilize all their resources during the*

election campaigning and it affects infrastructural development: Table 4.4 above revealed that 38 (42.2%) + 46 (41.8%) = 84 (84%) agreed, while 18 (20%) + 6 (6.6%) + 2 (2.2%) = 26 (28.8%) disagreed. These findings revealed that the excessive financial involvement of political godfathers in electioneering significantly diverts resources that could otherwise be used for infrastructural development. Sapele & Jeko (2024) opined that godfathersm has very negative consequences and if necessary, steps are not taken,

On whether there are always legal tussles between godfathers and godsons in Edo State due to internal democracy: The quantitative data collected revealed that, 27 (30%) + 23 (20.9%) = 50 (50.9%) agreed, while17 (18.9%) + 11 (12.2%) + 5 (5.6%) = 33 (36.7%) disagreed. These findings indicate that internal democracy challenges within political parties contribute to frequent legal battles between political godfathers and their protégés in Edo State. While Respondent 3 $_{Ed}$ also said that, when there is a conflict between the godfather and godson, the roads that pass through the axis of the godfather will be neglected for maintenance or construction. He concluded that public funds that were meant to provide quality water and construction of roads would be diverted into private accounts by the godfather and godson. (FGD, Fieldwork 2025)

The Impact of Party Financial Incapacitation on Internal Democracy in Edo State

Table 3 showed the responses of the respondents on the impact of party financial incapacitation on internal democracy and how it affected infrastructural development in Edo State.

S/N	Statements	SA	A	SD	D	N	Total	Aggregate Response
9	Political parties in the State revolve around self-finance.	37 41.1%	29 32.2%	11 12.2%	8 8.9%	5 5.6%	90 100%	Strongly Agreed
10	Corrupt practices of the godfathers and godsons bring disparity in development in the State.	26 28.9%	30 33.3%	21 23.3%	9 10%	4 4.5%	90 100%	Agreed
11	Strategies to conduct and supervise primaries, congresses and conventions solemnly rest in the hands of godfathers and godsons.	32 35.6%	26 28.9%	19 21.1%	10 11.1%	3 3.3%	90 100%	Strongly Agreed
12	A larger percentage of the contributions towards party funding come from godfathers, godsons, stakeholders and gladiators.	32 35.6%	26 28.8%	14 15.6%	10 11.1%	8 8.9%	90 100%	Strongly Agreed

Source: *Researcher's Field Survey 2025*

Findings from the third objective, is to investigate the impact of party financial incapacitation on internal democracy in Edo State. On whether political parties in Edo State revolve around self-finance, data collected revealed that, 37 (41.1%) + 48 (43.6%) = 85 (84.7%) agreed, while 29 (32.2%**)** disagreed. It is important to stress that, Respondent 3 $_{Ed}$ submitted that, internal democracy means internal arrangement, picking the candidate that will represent them in the affairs of politics. (Fieldwork Interview, 2025). This submission is line with Yahaya & Abba (2021) when they argued that godfatherism lead to inter party and intra party defections among the political parties and party members in Nigeria.

On whether the strategies to conduct and supervise primaries, congresses, and conventions solemnly rest in the hands of godfather and godson: Quantitative results revealed that, 32 (35.6%) + 32 (29.1%) = 64 (64.7%) agreed, while 26 (28.9%) disagreed. Respondent 5 $_{Ed}$ explained that, the impact of godfatherism and internal democracy on infrastructural development could be seen as bad roads cut across the nooks and crannies of the state, bad water through contaminated efforts, human activities, industrial waste, sewage, domestic waste and crude oil extraction. He submitted that the incumbent governor of the state Monday Okpebholo inspected bad roads less than one month in office. (FGD, Fieldwork 2025).

7. Discussion of findings

The first objective is on factors that contributed to the trend of godfatherism in Edo State. The lack of patriotic leaders and the insufficiency of visionary political elites are also noted in the study as important problems. This factor weakens political structures, according to 65.6% of respondents. This finding supports Eze (2020), who argues that the absence of ideologically driven leadership fosters self-serving political ambitions, weakening democratic institutions.

The second objective is on the role of party internal democracy on the relationship between the godfathers and the godsons in Edo State. 50.9% of respondents concurred that frequent legal disputes between godfathers and their protégés are a result of internal democracy issues inside parties. These findings support the claims made by Theriault (2008) argued that congress of the political party polarizes the political party more and the issue of congress is accounted to increase frequency of polarization because of the procedure used during the process.

The third objective is on the impact of party financial incapacitation on internal democracy and how it affected infrastructural development in Edo State. These results from the third objective demonstrate how party financial incapacity has a major effect on internal democracy in the state. Respondents from Edo State emphasised how godsons' preference for political survival above administration has a detrimental effect on public services and infrastructure. According to the data gathered, godfathers, godsons, and other high-ranking stakeholders provide a substantial amount of party funding.

8. Hypothesis Testing

8.1 H_{01}: Party financial incapacitation of political parties has no significant relationship on infrastructural development in Edo and Kaduna States.

8.2 Model Summary of Hypothesis Three

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
1	.604a	.365	.363	.38947	2.117

Source: *Researcher's Field Survey 2025*

a. **Predictors:** (Constant), AV_ Party financial incapacitation of political parties1
b. **Dependent Variable:** AV_ Infrastructural development1

8.3 ANOVAa

Model	Sum of Squares	Df	Mean Square	F	Sig (p-value)
Regression	28.247	1	28.247	186.451	.000b
Residual	49.875		.148		

Source: *Researcher's Field Survey 2025* Total 78.122 339

a. **Dependent Variable:** AV_ Infrastructural development1
b. **Predictors:** (Constant), AV_ Party financial incapacitation of political parties1

8.4 Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig (p-value)
	B	Std. Error	Beta	
3 (Constant)	2.103	.087		24.178
AV Party financial incapacitation of political parties3	.425	.031	.604	13.654

Source: *Researcher's Field Survey 2025*
a. **Dependent Variable:** AV_ Infrastructural development1

The null hypothesis (H_{01}) is rejected since the p-value is less than 0.05 and *this means that party financial incapacitation of political parties has significant relationship on infrastructural development in Edo and Kaduna States.*

***8.5 H_{02}*:** Imposition of candidates has no significant relationship on infrastructural development in Edo and Kaduna States.

8.6 Model Summary of Hypothesis Four

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
1	.578a	.334	.332	.40215	2.095

Source: *Researcher's Field Survey 2025*

a. **Predictors:** (Constant), AV_ Imposition of candidates 2
b. **Dependent Variable:** AV_ Infrastructural development2

8.7 ANOVAa

Model	Sum of Squares	Df	Mean Square	F	Sig (p-value)
Regression	26.379	1	26.379	162.985	.000b
Residual	54.791	338	.162		
Total	81.170	339			

Source: *Researcher's Field Survey 2025*

a. Dependent Variable: AV_ Infrastructural development2
b. Predictors: (Constant), AV_ Imposition of candidate2

8.8 Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig (p-value)
	B	Std. Error	Beta	
1 (Constant)	1.882	.093		20.237
AV_ Infrastructural development	.398	.031	.578	12.768

Source: *Researcher's Field Survey 2025*

a. Dependent Variable: AV_ Infrastructural development2

The null hypothesis (H_{02}) is rejected since the p-value is less than 0.05. This indicates that *imposition of candidates and infrastructural development in the states of Edo and Kaduna are significantly related.*

9. Conclusion

Political parties rely on donations from political godfathers and their supporters and this affected internal democracy as could be seen from Respondent 9 $_{Ed}$ when he said that there should be a kind of enlightenment to the masses and the electorates on the negative impact of godfatherism. Indeed, patron-client relationship in Nigeria politics facilitates financial misappropriation which erodes governance, because public resources are used for political survival rather than development. Conflicts exacerbate underdevelopment by resulting in depilated roads, inadequate water supply and heightened poverty.

In Edo State, godfathers put their own interest a head of political belief and this hindered by godfatherism to enjoy the provision of political dividends and good governance and this could be seen from the responses of the Respondent 6 $_{Ed}$ when described godfatherism as a system of politics where somebody serves another person as his leader or mentor. The godfather is a politician who act as a father and mentor to the candidates and the godson is a person that is obedient to the godfather. Disenfranchisement remains a key issue in political land scope of Edo State and this compromising the democratic rights of citizens. Respondent 5 $_{Ed}$ explained that godfatherism bring about flexing of political power between godfather and godson, unconducive, unsafe and unstable environment, kidnapping, assassination of big whips and party stalwarts. Respondent 14 $_{Ed}$ responded that godfatherism bring risk on good governance, legal battles and different litigation in the courts of law.

There is continuance occurrence of political violence and electoral fraud which impede Nigeria's democratic consolidation in Edo State. Political godfathers and their supporters had impacted negatively on electoral process which compromises democratic governance and electoral integrity as could be seen from Respondent 8 $_{Ed,,}$ Respondent 2$_{Ed}$ and this jeopardised political stability, democratic governance and election integrity. Respondents interviewed submitted that godfatherism is a deceptive system that restricts the ability of godson to make autonomous policy decisions by forcing them to stay faithful to their sponsors. Godfatherism results in voter rights violations and disenfranchisement according to the findings in Edo State.

10. Recommendations

The following recommendations were made to reduce the detrimental consequences of godfatherism and a weak internal democracy and thereby improve infrastructural development in Edo State:

- Electioneering campaigning funds should come directly from consolidated funds established by federal government.
- Improve security to reduce election violence and political thuggery by partner the political parties, traditional rulers, religious organization and nongovernmental organization.
- Introduction of merit-based appointments and performance-based governance
- Political parties in Edo State should implement transparent and democratic systems in candidate selection to eliminate the power of godfathers and relevant stake holders should develop long-term strategies

for sustainable infrastructure development in Edo State. Electoral Act 2022 and other electoral reforms should be enforced on all political parties in Edo State before, during and after the internal democracy.

- There should be a regular political education, orientation and civic engagement from a body such as National Orientation Agency (NOA) and relevant agencies on good governance, internal democracy (congress, primary, convention), election, electoral system, political parties in Edo State.

References

Ahmed & Ali (2019). Politics of godfatherism and its implication on socio economic and political development of Nigeria. *American International Journal of Social Science Research,* 4(1),

Akpama, E. R., & Ayomola, O. (2021). Internal democracy and political violence in Rivers and Bayelsa States Nigeria (201`0 – 2020). *International Journal of Humanities and Social Sciences,* 20, (4).

Alabi, A., & Sakariyau, R. T. (2013). Democracy and politics of godfatherism in Nigeria: The effects and way forward. *International Journal of Politics and Good Governance,* 4, (4.2)

Asaju, K. (2023). Infrastructural Development and Development Administration: A retrospective. *Journal of Foresight and Thought Leadership.* 2, (1).

Berger, A. A. (2017). *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy,* Routledge.

Eze, C. M. (2020). Leadership and Governance: Nigerian experience. *American Journal of Multi-Disciplinary Research and Review (AJMRR).* 1, (3).

Galles, S. (2011). Why primaries? The party's tradeoff between policy and violence. *Journal of TheoreticalPpolitics.* 23, (1).

Igbini, D. M., & Okolie, U. C. (2020). Godfatherism and its treat to the Nigeria's Nascent Democracy. *Journal of Public Administration, Finance and Law.*17.

kouladoum, J. C. (2025). Digital infrastructural development and inclusive growth in Sub Saharan Africa. *Journal of Social and Economic Development.* 20, (2)

Law, T. H., & Jakinni, F. M. (2019). Road infrastructure development and economic growth. 10th Malaysian Road Conference & Exhibition.

Lotshwao, K. (2009). Internal party democracy in African national Congress: A threat to the Consolidation of democracy in South Africa. *Journal of Southern African Studies,* 35, (4).

\Majekodunmi, A., & Awosika, F. O. (2013). Godfatherism and political conflicts in Nigeria: The fourth republic in perspective. *International Journal of Management and Social Sciences Research 2 (7)* pp.70-75

Nickdoost, N., & Javad, M. (2024). A composite index framework for quantitative resilence assessment of road infrastructure system: Transportation Research Part D *Transport and environment* 13, (1).

Ogbe, H. E. (2015). Political parties and imposition in Nigeria: A menace to democracy and national security. *Journal of Humanities Social Sciences and Creative Arts.*13, (1).

Opone, P. O., & Ikuni, D. O. (2024). Godfatherism and Nigeria 2013 General Election: The Case of Delta State. *NIV Journal of Humanities,* 9, (1).

Osayi, F. O. (2015). Regressive democracy: The monstrous role of godfatherism in Nigeria *International Journal of Politics and Good Governance 6 (6.2)*

Piechowicz, K., & Szymamek, S. (2024). Stabilisation of loose seals as part of sustainable development of road infrastructure. *Sustainability* 16, (19).

Sapele, F. F., & Jeko, V. O. (2024). The implications of Godfatherism and Eliocentricism in Nigeria politics for national development. *Journal of Lexicography and Terminology,* 8, (1).

Sindre, G. M. (2016). Intra party democracy in former rebel parties, *Journal of Party Politics,*22, (4).

Theriault, S. M. (2008). *Party Polarisation in Congress.* Cambridge University Press.

Yahaya, J. U., & Abba, M. A. (2021). An overview of the implication of godfatherism in Nigeria politics. *Jalingo Journal of Peace Science and Conflict Management,* 1, (2).

All Progressive Congress (APC) Constitution (2014)

csc.edostate.gov.ng

People's Democratic Party (PDP) Constitution (2007)

World Bank 2017

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 15-23

An Ethnographic Study of the Roles of Age Grade in South Ibie, Etsako West Local Government of Edo State, Nigeria

MOHAMMED D. ENAIKELE
Federal College of Fisheries and Marine Technology, Lagos, Nigeria.

Abstract. The age grade institution, locally known among the people of South Ibie as "Otu," is a dynamic system deeply embedded in the cultural fabric, facilitating communal cohesion, governance, and development over centuries. This study is a field based sociological investigation of the multifaceted roles of age grade institution among the people of South Ibie, Etsako West Local Government, Edo State. Drawing on fieldwork conducted between 2023 and 2025, the research examines how the age grades have functioned as mechanisms for cultural preservation, social cohesion, conflict resolution and community development. Sociological theoretical insights of structural-functionalism and conflict theory were applied for the study. Qualitative ethnographic instrument using participant observation, in-depth unstructured interviews, and analysis of historical and archival records were used to gather data. Findings indicate that age grades in South Ibie have achieved institutional adaptability in the face of modernization and has contributed to South Ibie societal cohesion and community development, though challenges like urbanization and youth migration were observed to be threatening its sustainability. Recommendations include policy support for integrating age grades into contemporary governance structures for policy makers seeking to leverage indigenous systems for sustainable rural development in Nigeria.

Keywords: Ethnographic Study, Roles of Age Grade, South Ibie, Etsako West Edo State, Nigeria.

1. Introduction

The age grade institution is a cornerstone of traditional social organization in many African societies, particularly in Nigeria, where it serves as a robust mechanism for structuring communities by grouping individuals into age-based cohorts tasked with specific social, economic, and political responsibilities. Among the South Ibie people of Etsako West Local Government Area of Edo State, Nigeria, this institution, locally known as "Otu," is a dynamic system deeply embedded in the cultural fabric, facilitating communal cohesion, governance, and development over centuries. SouthIbie, a clan within the broader Etsako ethnic group, traces its historical and cultural roots to the ancient Benin Kingdom, sharing linguistic and socio-cultural ties that shape its age grade practices (Bradbury, 1957). The Etsako people, including the South Ibie, are renowned for their rich heritage, encompassing vibrant festivals, chieftaincy systems, and collective labor practices intricately linked to age grades (Orieso & Ohikhokhai, 2001).

Historically, age grades in Nigerian societies served as pre-colonial instruments for socialization, defense, and governance, organizing young men into cohorts for tasks like warfare, farming, and ritual activities. In South Ibie, age grade system locally known as “Otu” has its origins in migratory influences from the Benin Empire, where age grades were critical for mobilizing labor and maintaining social order. Despite disruptions from colonial rule, which undermined many traditional institutions, age grades in South Ibie demonstrated resilience, adapting to post-independence realities while continuing to drive community initiatives such as building infrastructure and mediating conflicts (Nwagbara, 2019). For example, in the neighboring Auchi and Uzairue clans, age grades have spearheaded socio-cultural development by constructing roads and maintaining markets (Yakubu, 2023a), a practice now known in South Ibie.

Ethnographic research on age grades in Nigeria has often focused on Igbo communities in the South-east, where they are pivotal in rural development and social control (Otu, 2016; Uzoh, 2024). However, recent studies in Edo State reveal comparable dynamics, with age grades in clans like Auchi and Uzairue contributing significantly to economic and social cohesion through collective projects (Obijuru et al., 2023). In South-Ibie, the age grade system is marked by elaborate initiation rites, notably an annual festival known as "Ukpe", a vibrant festival celebration where young men are inducted into adulthood through ritual initiation involving communal feasts, dances, and oaths of loyalty to community norms and values. This festival not only reinforces social hierarchies but also serves as a cultural anchor, preserving traditions in the face of modernization (Borgatti, 2005)

The functional roles of age grades in South Ibie extend far beyond cultural preservation. The institution is structured into three tiers—junior, intermediate, and senior—each with distinct responsibilities. Junior grades undertake physical tasks like clearing farmlands or maintaining communal spaces, intermediate grades focus on security and dispute resolution, and senior grades provide advisory roles in governance and decision-making (Ebbonu, 1995). This stratification ensures a seamless transfer of knowledge, skills norms and values across generations, fostering social stability. Recent research highlights how age grades curb youth restiveness by engaging young people in productive activities, particularly in agrarian communities like South Ibie, where farming remains the economic mainstay (Okafor, 2022). Furthermore, age grades have adapted to contemporary challenges, such as climate change and economic shifts, by incorporating modern initiatives like vocational training for youth, demonstrating their flexibility (Mbah, 2020).

Despite these contributions, age grades face significant challenges that threaten their sustainability. Urbanization and youth migration to urban centers like Benin City, Lagos and Abuja have reduced active participation, and thereby weakening the institution's capacity to mobilize labor and resources (Imhonopi et al., 2013). Historically male-dominated, the age grade system in South Ibie has traditionally excluded women from full participation, though recent developments in some Edo communities like Auci and Uzairue, indicate the emergence of female age grade focused on empowerment and primary health matters like family planning and immunization, signaling a shift toward inclusivity (Okwelume, 2010). These changes reflect broader societal transformations driven by education, globalization, and exposure to gender equality movements, which challenge patriarchal norms within traditional structures (Nwagbara, 2019).

Conflict resolution is another vital function of age grades in South-Ibie. Senior age grade often serve as informal courts, mediating disputes over land, marriage, inheritance and resources using customary laws, thereby fostering peace and reducing reliance on formal legal systems (Nabofa, 2021). This role is particularly significant in Edo North, a multi-ethnic region with historical inter-clan tensions (Bello-Imam, 1995). In addition, age grades promote moral education, instilling values of respect, diligence, and community service, which contribute to lower crime rates in traditional settings (Taiwo, 2022). The institution's integration into modern governance, such as through community policing initiatives, further underscores its potential to bridge gaps in service delivery, particularly in healthcare and education (Onwuka, 2024; PIND Foundation, 2020). However, challenges like corruption and political interference can hinder these efforts (Nwachi, 2021).

In conclusion, the age grade institution in South-Ibie remains a vital mechanism for social organization, cultural preservation, and community development, despite pressures from modernization. Its ability to adapt—by incorporating modern initiatives while maintaining traditional roles, positions it as a valuable asset for sustainable development in rural Nigeria (Nwagbara, 2019). Following this, the study aims to document the multifaceted roles of the age grade institution that will offer insights for academic discourse and practical interventions to strengthen the indigenous institutions.

1.1 Aims and Objectives

This study is a field based sociological investigation of multifaceted roles of age grade institution among the people of South Ibie of Etsako West Local Government, Edo State. Over and above this, the primary aim of this study is to ethnographically examine the sociological multifaceted roles of the age grade institution among the South-Ibie people, highlights its contributions to social cohesion and community development in the context of contemporary Nigeria.

However, the specific objectives include:

- To explore the ethnographic history of South Ibie.
- To examine the multifaceted functions of age grades in cultural preservation, conflict

resolution, and community development of South Ibie.
- To assess the challenges facing the institution, such as urbanization and gender exclusion, and their impacts on sustainability.
- To provide recommendations for integrating age grades into modern governance for social cohesion, unity and rural development.

2. Ethno-Historical Profile of South Ibie

In his ethnographic monograph, Bello-Imam (1995) provides the history and social life of South Ibie. The South Ibie clan, located in Etsako West Local Government Area of Edo State, Nigeria, is part of the larger Etsako ethnic group, which forms one of the major ethic subgroups of the Edo people. South Ibie is one of the six clans that make up Etsako West Local Government Area of Edo State. Other clans include Uzairue, Auchi, Anwain, Jagbe, and Aviele The oral history, colonial map and ethnographic records indicates that the people of South-Ibie are part of the larger Ibie people whose ancestors migrated from Benin kingdom into the area several centuries ago. The oral traditions and ethnographic accounts tracing the migration of Ibie people from Benin kingdom during the 14th to 17th centuries historically linked the present day North Ibie and South Ibie together as one, with common ancestral leader or a figure often described as the progenitor of the Ibie people. But the post-independence local government Creation divided the Ibie kingdom into North Ibie and South Ibie and made the North Ibie and South Ibie distinct clans under different local government administration.

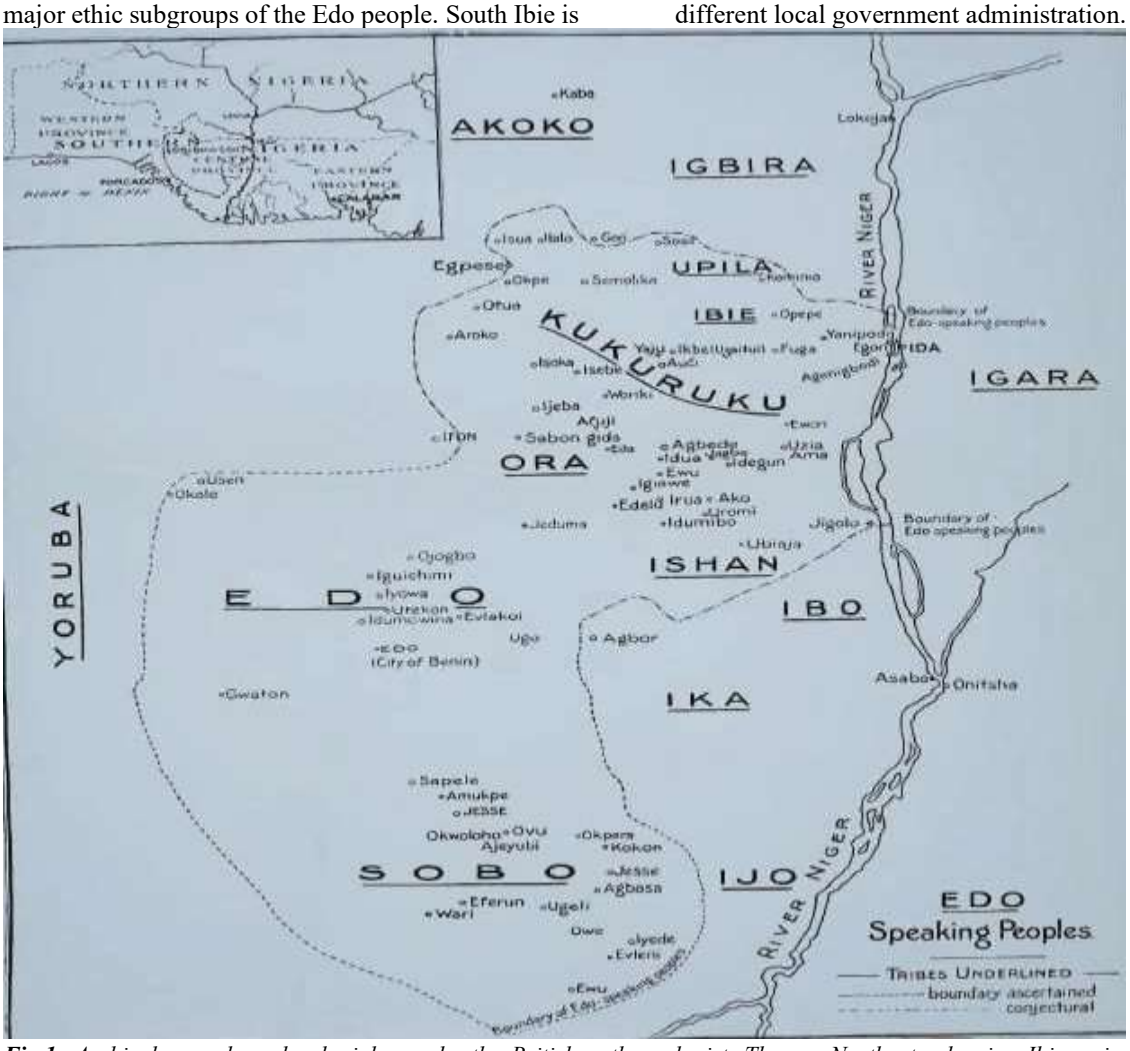


Fig.1: *Archival records and colonial map by the British anthropologist, Thomas Northcote showing Ibie, prior to its post-independence division into North Ibie and South Ibie, and later recognized as distinct clans under separate local government jurisdictions. Source: Etsako West Local Government secretariat, Auchi, Edo State Nigeria.*

South Ibie has a number of contiguous indigenous settlement communities like Ibie Iyakpi, Ibie Nafe, Iyerekhu, Ughieda and Ughiekha that formed the present day South Ibie clan. Ibie-Iyakpi was the initial ancestral settlement point of all the South Ibie people. This is why these five contiguous indigenous settlement communities, are known to have descended from a common ancestral and patriarchal leader, fostering strong kinship ties among them. The people of South Ibie maintain strong ties with Edo traditions, including culture, festivals, kinship systems, taboos and age grade institution. Today, South Ibie contributes to the vibrant cultural mosaic of northern Edo with ongoing pride in their Benin roots as seen in their language and aged-long institution of age grade (Blench, 2020).

Historically, during the 19th and early 20th centuries, South Ibie, along with other neighbouring Etsako communities, experienced inter-communal raids and the expansion of Hausa-Fulani and Nupe jihadists and this brought Islam to South Ibie and many parts of Etsako and northern Edo communities. Linguistically, in the pre-colonial-era, South Ibie was among the subgroups that were known as Kukuruku. The word Kukuruku evolved from the people common language of alerting their neighbourhood of danger of war and raid of the Hausa-Fulani and Nupe jihad expansionist campaign. Politically, the pre-colonial South Ibie society was organized along kinship, and village-lineage, age-grade and Magajia institutions. Local chiefs and elders often draw authority from lineage heads, age-grade leaders and the Magajia institutions to judge customary matters like land disputes, inheritance and conflict resolution. Much later, the British colonial administrative reorganization, colonial maps, ethnographic histories and the post-independence local government creation recognized South-Ibie as a distinct clan within Etsako West. However, post-independence developments of South Ibie have recorded steady population growth and urban encroachment because of its association and contiguous to Auchi, where the local government secretariat is located. Etsako West itself is composed of six clans: South Ibie, Uzairue, Auchi, Anwain, Jagbe, and Aviele, with Auchi as the administrative headquarters.

3. Theoretical Orientation

This study adopts a dual sociological theoretical framework, combining structural-functionalism and conflict theory, to capture and analyze the multifaceted roles of the age grade institution in South Ibie. Structural-functionalism, as articulated by Emile Durkheim and Talcott Parsons, views society as a complex system composed of interdependent parts that work together to promote stability and social cohesion (Haralambus, et.al., 2013). Within this framework, age grades serve as critical subsystems that maintain social equilibrium by allocating specific roles to different age cohorts, enforcing cultural norms, and facilitating intergenerational integration. For instance, the tiered structure of junior, intermediate, and senior grades in South Ibie ensures that each group contributes to communal goals (juniors with labor, intermediates with security, and seniors with governance) thereby fostering social order and continuity. This perspective highlights how age grades contribute to societal stability by providing structured pathways for socialization, resource mobilization, and conflict resolution, aligning with Durkheim's emphasis on collective conscience and Parsons' focus on functional prerequisites like adaptation and integration (Olayinka and Olutayo, 2013).

However, structural-functionalism alone may overlook power dynamics and inequalities inherent in social structures. To address this, the study incorporates conflict theory, drawing from Karl Marx's ideas (Morrison, 2006), to examine tensions within the age grade system, particularly around generational hierarchies and gender disparities. Conflict theory posits that social structures are shaped by struggles over power and resources, and in South Ibie, age grades reflect such dynamics through their male-dominated nature and the hierarchical authority of senior grades over juniors (Olayinka and Olutayo, 2013). Historically, women have been excluded from full participation in age grades, a practice rooted in patriarchal norms, though recent shifts toward female age sets indicate evolving power relations influenced by education and globalization (Okwelume, 2010). In addition, the control exerted by senior grades over decision-making processes can marginalize younger members, creating potential for intergenerational tension, particularly as youth migrate to urban areas and question traditional authority (Imhonopi et al., 2013). By integrating conflict theory, the study explores how age grades navigate these power imbalances while adapting to modern societal changes.

This dual theoretical approach provides a comprehensive lens for understanding the age grade institution's dual role as both a stabilizing force and a site of contestation. Structural-functionalism illuminates the institution's contributions to social cohesion, such as through communal labor and moral education, while conflict theory highlights challenges like gender exclusion and the impact of modernization

on traditional hierarchies (Nwagbara, 2019). Together, these frameworks enable a nuanced analysis of how age grades in South-Ibie balance tradition and adaptation, offering insights into their resilience and potential for integration into contemporary governance structures. By grounding the study in these theories, the research not only ethnographically explains the institution's enduring relevance but also critiques its limitations, paving the way for recommendations that address both its strengths and challenges in a rapidly changing social landscape and modernization.

4. Research Methodology

The ethnographic methodology of this study provides a deep sociological dive into age grade system, capturing the practices and live experiences of South Ibie residents through immersive fieldwork conducted between May, 2023 and June, 2025. By participating in age grade meetings, "Ukpe" festivals, and daily community interactions, the researcher gained insights into the institution's resilience and adaptability. Comparative analyses with other neighboring clans like Uzairue and Auchi, reveal both clan variations and shared themes, such as the emphasis on collective labor and conflict mediation (Obijuru, et al., 2021). In an era of rapid development, understanding the age grade institution is critical for policy makers seeking to leverage indigenous systems for sustainable rural development in Nigeria (Okafor, 2022).

4.1 Research Instrument and Sampling Method

This study employs purposive sampling method using qualitative ethnographic approach to investigate the multifaceted roles of the age grade institution among the South Ibie people, aiming to sociologically capture the live experiences and cultural nuances of the age group in the community. Fieldwork was conducted over a two-year period, from May 2023 to June 2025, in the five village communities (Ibie Iyakpi, Ibie Nafe, Iyereku, Ughieda and Ughiekha) of South Ibie, Etsako West Local Government Area, Edo State, Nigeria. The primary methods included participant observation, in-depth unstructured interviews, and archival analysis of records and map, designed to provide a comprehensive understanding of the age grade system's structure, functions, and challenges. Participant observation involved the researchers immersing themselves in community life, attending age grade meetings, initiation ceremonies (known as Ukpe festival), and communal labor activities. This method allowed for firsthand insights into the initiation rituals, interactions, and roles of different age grades, capturing the age grade institution's dynamic roles in daily life and special events.

In-depth unstructured interviews were conducted with 45 participants, purposively selected to represent a diverse or cross-section of the community. The sample included 15 individuals from each age grade category—junior (ages 18–33), intermediate (ages 34–49), and senior (ages 50 and above)—ensuring representation across age categories, occupation (e.g., farmers, traders, teachers and local politicians), and social status. Interviews were unstructured, allowing flexibility to probe and explore participants' perspectives on the historical evolution, current functions, and challenges facing the age grade system. Questions focused on personal experiences, perceived benefits, and the impact of modernization on participation. Interviews were conducted in the local Etsako language and pidgin-english, with translations verified for accuracy.

To provide historical and contextual depth, the study analyzed archival record and map from the local government office and the community archival records from the palace of the traditional ruler (Aidonogie), which include documents on age grade activities, land disputes, and the festival records. Oral histories were also collected from the senior age grades, the traditional ruler, the Magajia, the Red Cap Chief (Daudu) in each of the following contiguous indigenous village communities (Ibie Nafe, Iyereku, Ughieda and Ughiekha) that formed South Ibie, whose narratives provided insights into the institution's evolution since pre-colonial times. These sources were triangulated to validate findings from observations and unstructured interviews, ensuring a robust data. In all, the data gathered (such as the roles of the age grades, initiation, socialization, development, and conflict resolution, as well as challenges like youth migration and gender dynamics) were qualitatively analyzed

Ethical considerations were paramount throughout the research process. Informed consent was obtained from all participants, with explanations provided in both pidgin-english and Etsako dialect to ensure understanding. Anonymity was maintained by assigning pseudonyms to participants in all records, and data was securely stored in compliance with sociological research standards. Community leaders were consulted prior to fieldwork to secure approval and foster trust, particularly given the cultural sensitivity of age grade initiation rituals. Limitations of the study include the likely potential researcher bias due to the immersive nature of ethnography participant observation research tool, but which was mitigated through triangulation of data sources and regular

reflection on gathering authentic data. In addition, the study's focus and findings on South-Ibie may have the limitation of generalization on other clans in Etsako West (like Uzairue, Auchi, Anwain, Jagbe, and Aviele) age grades, though comparisons with neighboring clans like Uzairue and Auchi age grades also enriched the methodological approach and contextual understanding of the age grade institution's multifaceted roles in South-Ibie.

5. Results and Discussion

The findings of this ethnographic study illuminate the multifaceted roles of the age grade institution in South Ibie, revealing its enduring significance as a mechanism for socialization, community development, cultural preservation, and conflict resolution. At its core, the age grade known as "Otu" institution serves as a primary agent of socialization, instilling communal values such as respect, cooperation, and responsibility in young members through initiation rites like the Ukpe festival. This annual event, hosted with communal feasts, dances, and oaths, not only marks the transition from childhood to adulthood but also reinforces collective identity and social hierarchies, ensuring that cultural norms are passed down across generations (Nabofa, 2021). The Ukpe festival's vibrancy, observed during fieldwork, underscores its role as a cultural anchor, uniting the community in a shared celebration of heritage despite pressures from modernization (Borgatti, 2005).

Economically, age grades in South Ibie are pivotal in driving the community development through collective labor and projects. Junior and intermediate grades undertake projects such as construction and renovation of schools' buildings and providing furniture for the students, and construction of roads, and boreholes, which are critical for self-reliant of the rural communities in South-Ibie. For instance, during fieldwork, the researcher observed a junior age grade clearing land for a new community health center, a project funded entirely through communal contributions. Such initiatives highlight the age grade institution's capacity to mobilize resources and labor, filling gaps left by limited government intervention in rural areas (Okafor, 2022). This aligns with findings from Uzairue, where age grades have similarly driven infrastructure development, suggesting a pattern of community-driven growth in Edo State (Yakubu, 2023a).

In terms of conflict resolution, age grades, particularly senior grades in South Ibie, function as parallel informal judicial bodies to Magajia institution, mediating disputes over land, marriage, and inheritance using customary laws. Fieldwork revealed instances where senior age sets resolved land disputes between families, preventing escalation to police case or formal court case thereby fostering communal harmony and unity. This role is particularly significant in Edo North, a region with historical inter-clan tensions, where age grades serve as trusted mediators grounded in local knowledge (Bello-Imam, 1995). The institution's emphasis on moral education further complements this function, as initiation rites and ongoing mentorship instill norms and values of fairness and community service, thereby contributing to lower crime rates in South Ibie compared to urban areas (Taiwo, 2022).

However, the age grade system faces significant challenges that threaten its sustainability. Urbanization and youth migration to cities like Benin City, Lagos and Abuja have led to the declining membership, as young people increasingly view the traditional institution as outdated. Interviews with junior and intermediate grades revealed frustration of the age grade institution's capacity to mobilize resources and labor due to irregular coming home of members and economic situation in the country. This urban-migration, therefore weakens the institution's capacity to undertake large-scale projects, as observed during the 2024 community meeting and "Ukpe" festival where fewer than half of the expected junior members participated. In addition, the patriarchal structure of age grades in South Ibie has historically excluded women thereby limiting their contributions to community development. However, the emerging female age grade institution as observed in the neighboring clans like Uzairue and Auchi, has beginning to motivate the South Ibie women to form female age grades to address the issues like girl child education, gender empowerment, vocational training and primary healthcare immunization and vaccination initiatives, signaling a gradual shift toward gender inclusivity (Yakubu, 2021). These groups, though nascent, suggest potential for reform, driven by broader societal changes like education and exposure to global gender equality movements (Nwagbara, 2019).

Comparatively, South-Ibie's age grade system shares similarities with that of other Etsako West clans (Uzairue and Auchi) age grades where collective labor and conflict mediation are central. The age grade in South Ibie is different from Igbo age grade, especially with emphasis on initiation rituals like the Ukpe festival (Otu2006). While Igbo age grades often prioritize economic contributions, South-Ibie's system integrates cultural preservation more prominently,

reflecting on Etsako people's deep historical connection to Benin Kingdom traditions (Bradbury, 1957). This regional variation underscores the cultural adaptation of age grades institution of South Ibie.Yet, the South Ibie age grade institution share the same challenges and experience of migration of their Junior, intermediate and senior grades to urban centers In addition, the South Ibie age grade institution's efforts to incorporate programs such as youths empowerment and vocational training, observed during the fieldwork, demonstrates its resilience for community development, but sustaining this requires addressing structural challenges like the declining participation of members.

The interplay between age grades and modern governance further illustrates their potential. In Edo State, initiatives like community policing led by intermediate age grades against the increasing cases of insecurity, have enhanced local security, bridging the gaps in state-led policing (Onwuka, 2024). This role is particularly significant in Edo North, a region with increasing records of insecurity, where age grades serve as community police (Bello-Imam, 1995). However, corruption and political interference of local politicians noted during the interviews with senior age grade members, can undermine these efforts, as external actors (politicians) sometimes exploit age grades for political gain. Despite these challenges, the institution's role in mobilizing volunteers for primary healthcare immunization and vaccination drives observed in 2024, suggests a pathway for integration into formal governance structures (PIND Foundation, 2020). Overall, the age grade system's adaptability underscores its potential to contribute to modern Nigeria, but its long-term sustainability hinges on addressing migration, gender exclusion, and political challenges through targeted interventions. Over and above all, this study's ethnographic findings provide a foundation for both sociological understanding and practical action, highlighting the need to preserve and adapt this indigenous age grade institution into Nigeria modern governance institutional framework.

6. Conclusion and Recommendations

The age grade institution in South-Ibie remains a vital pillar of social organization, cultural preservation, and community development, demonstrating remarkable resilience in the face of modernization. Its roles in socialization, economic development, and conflict resolution affirm its enduring relevance in fostering social cohesion, unity and self-reliance in rural Nigeria. Through the Ukpe festival and other rituals and initiation, age grades in South Ibie preserve Etsako cultural heritage, while their contributions to community development, infrastructure and conflict mediation address practical community needs (Nabofa, 2021). The age grade institution is tiered structure—junior, intermediate, and senior age grades—ensuring intergenerational continuity, with each group performing distinct roles that maintain social equilibrium (Ebbonu, 1995). Moreover, its adaptability, observed in the incorporation of vocational training, youths' empowerment and the recent emergence of female age grade, highlights its potential to evolve alongside societal changes (Mbah, 2020).

However, the age grade institution faces significant challenges that threaten its sustainability. Youth migration to urban centers like Benin City, Lagos and Abuja has led to declining participation of members, weakening the labor pool and resources mobilization for community projects (Imhonopi et al., 2013). This trend, observed during fieldwork, reflects a broader disconnect between younger generations and traditional institutions, exacerbated by urban opportunities and perceptions of age grades as outdated (Nwachi, 2021). Gender exclusion is another critical issue, with women historically marginalized in the male-dominated age grade "Otu" system, though the recent emergence of female age grade in South-Ibie and other neighboring clans like Uzairue and Auchi signals gradual progress toward inclusivity (Okwelume, 2010). The emergence of this female age group, though nascent, suggest potential for reform, driven by societal changes and exposure to global gender equality movements (Nwagbara, 2019). Political interference and corruption also pose risks, as external actors (especially the politicians) sometimes manipulate age grades for their political gains, undermining the age grade autonomy (Nwachi, 2021). These challenges underscore the need for strategic interventions to ensure the institution's continued relevance in the rapidly changing social landscape of South Ibie.

The integration of age grades into modern governance offers a promising avenue for revitalization. Their success in community policing and volunteer mobilization for community development, especially in the area of primary healthcare, education and youths' empowerment initiatives demonstrates their potential to complement government efforts to bring development to the people at the grass root (Onwuka, 2024; PIND Foundation, 2020). However, without support, the institution risks further erosion, particularly as urbanization accelerates. By leveraging the institutional capacity and cultural legitimacy, age grades can bridge gaps in rural service delivery, fostering sustainable development in areas previously neglected by the government (Okafor, 2022).

7. Recommendations

Government should:

- evolve policies to recognize and fund age grade projects for rural development
- Promote gender inclusivity by encouraging female age grade
- Integrate age grades into educational curricula to engage youths about its relevance.

Further research on comparative ethnography study of age grade institution across Nigeria is also advised.

These recommendations aim to strengthen the age grade institution's role in South Ibie and beyond, ensuring its legacy as a driver of social cohesion, unity and sustainable development.

By addressing current challenges and leveraging on its adaptability, the South Ibie age grade "Otu" system can continue to thrive in the modern socio-cultural landscape and development.

References

Bello-Imam, I. B. (1995). An ethnographic survey of South Ibie Clan of Etsako West Local Government of Edo State, Nigeria. Ibadan Vantage Publishers. Retrieved Aug. 2025 from https://www.scirp.org/reference/referencespapers?referenceid=490677

Blench, R. (2020). *An Atlas of Nigerian Languages* (section on Etsako/Yekhee languages) — useful for linguistic and ethnolinguistic context of South-Ibie/Etsako. rogerblench.info

Borgatti, J. M. (2005). The Otsa festival of the Ekperi: Igbo Age-Grade Masquerades on the West Bank of the Niger? African Arts. Retrieved August 2025 from https://go.gale.com/ps/i.do?id=GALE%257CA120033589

Bradbury, R. E. (1957). The Benin Kingdom and the Edo-speaking peoples of South-Western Nigeria. International African Institute. Retrieved August 2025 from https://ia802206.us.archive.org/8/items/TheBeninKingdomAndTheEdo-

Ebbonu, M. C. I. (1995). Age grade in Esan: A study of the changing roles of age grade from pre-colonial period to date. AfricaBib. Retrieved August 2025 from https://www.africabib.org/rec.php?RID=185339808

Enaikele, M. D. (2025) Gendered Authority in Traditional Justice System: Unveiling the Roles of Magajia in Customary Justice System in Auchi, Edo State. *NIU Journal of Humanities* Vol. 10 (2) Pp.205-214.

Haralambos, M., Holborn, M., Chapman, S. and Moore, S. (2013) Sociology Themes and Perspective (8th Edition) Harper Collins Publishers, London. Pp52-53

Imhonopi, D., Urim, U. M., & Iruonagbe, T. C. (2013). Transcending the Eurocentric development paradigms in Nigeria: The traditional age grades in discourse. Anthropologist. Retrieved from https://www.researchgate.net/publication/283186008_Transcending_the_Eurocentric_Developm

Mbah, P. O. (2020). Age-grades and communitarian values. Academic Excellence Society. Retrieved August 2025 from https://www.academicexcellencesociety.com/age_grades_and_communitarian_values.pdf

Morrison, K. (2006) Marx Durkheim Weber: Formation of Modern Social Thought. Sage Publication, London. Pp. 48-55

Nabofa, M. Y. (2021). The role of age grade system in peace building in Ohafia. Retrieved August 2025 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3950997

Nwagbara, E. N. (2019). Changes and continuity in age grade practices in Nigeria: A study of the Igbo traditional society. *Arabian Journal of Business and Management Review*. Retrieved from https://www.researchgate.net/publication/282476085_Changes_and_Continuity_in_Age_Grade_

Nwachi, L. O. (2021). Age – grades and community development in Southeast Nigeria. Retrieved Aug 2025 from https://rsisinternational.org/journals/ijriss/articles/age-grades-and-

Obijuru, J. U., Obi, H. H. and Chukwura, D. C. J. (2021) Influence of Ade Grade Association on Rural Development in Anambra State Local Government System. *International Journal of Academic Accountinting, Finance and Management Research* (IJAAFMR) VOL 5 (10) Pp 36-46.

Okafor, E. E. (2022). The relevance of age grade system in community development in South Eastern Nigeria: The Afikpo village group. Retrieved from https://www.academia.edu/126396502/THE_RELEVANCE_OF_AGE_GRADE_SYSTEM_IN_

Okwelume, O. C. (2010). Igbo caste practices: Persistence and public attitudes in the media

[Doctoral dissertation, University of Birmingham Retrieved August 2025 from https://etheses.bham.ac.uk/id/eprint/1012/1/ Okwelume10PhD.pdf

Olayinka, A and Olutayo, A. O. (2013) The Macro-Sociological Theories (in) Sociological Theory for African Students (First Edition) Ibadan University Press, Nigeria Pp. 34-60

Onwuka, N. J. (2024). Social work perspective to the Igbo-African administrative institution (age grade) and Nigerian local government. *International Journal of Social Science and Applied Social Studies*. Retrieved Aug 2025 from https://ijssass.com/journal/social-work-perspective-to-the-

Orieso, M. A., & Ohikhokhai, R. I. (2001). The age grade system in Uweppa-Uwano of Etsako in Edo State: A study in the resilience of tradition. AfricaBib. Retrieved Aug 2025 from https://www.africabib.org/rec.php?RID=P00044300

Otu, S. E. (2016). The age grade system in Igboland. *The International Journal of Business and Management*. Retrieved Aug 2025 from https://internationaljournalcorner.com/index.php/theijbm/article/download/125968/86952

Otu and age-grade systems of Edo land. (n.d.). Edoworld.net. Retrieved from https://www.edoworld.net/Otu_And_Age_Grade.html

PIND Foundation. (2020). Report of assessment of baseline socio economic data in endemic areas of trafficking in Edo State. Retrieved Aug 2025 from https://pindfoundation.org/wp-

Taiwo, A. (2022). A study of dramatic elements in the Egbegun Age Grade Festival of the Omuooke Ekiti, Southwest Nigeria. Retrieved Aug 2025 from https://www.researchgate.net/publication/360562033_A_Study_of_Dramatic_Elements_in_the_

The age grade system and rural development in South East Nigeria: An approach to societal change. (2023). Port *Harcourt Journal of History and Diplomatic Studies*. Retrieved Aug 2025 from https://www.researchgate.net/publication/370068109_THE_AGE_GRADE_SYSTEM_AND_R

Uzoh, B. (2024). Age-grades and community development in Southeast Nigeria. *International Journal of Research and Innovation in Social Science*. Retrieved Aug 2025 from https://www.researchgate.net/publication/380070596_Age_-

Yakubu, S. (2023a). The role and duties of the age grade system in socio-cultural and community development in the Auchi Kingdom in Nigeria. *Athens Journal of History*, 9(1), 39-58. Retrieved August 2025 from https://www.researchgate.net/publication/370716149_The_Role_and_Duties_of_the_Age_Grade_

Yakubu, S. (2023b). The socio-cultural and political practices of the people of the Auchi Kingdom before the arrival of the Nupe in Nigeria. *Athens Journal of History*, 9(1), 39-58. Retrieved August 2025 from https://www.athensjournals.gr/history/2023-9-1-3-

Yakubu, S. (2024) Age-grade institutions and community development in Uzairue, Edo State, *Journal of Modern Studies*. Retrieved Aug 2025 from https://jms.org.ng/2024/07/07/age-grade-

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 25-36

Forest Conservation and Human Security: A Qualitative Study of Forest Reserves in Ondo State, Nigeria

MATTHEW OLUSOLA EBIRE, ISRAEL ADEMOLA ADENIYI, JOHN AGBONIFO
Global Affairs and Sustainable Development Institute,
Osun State University, Osogbo, Osun State, Nigeria

Abstract. This study examines the relationship between forest conservation and human security in Ondo State, Nigeria, focusing on food security, livelihoods, socio-cultural stability, environmental sustainability, biodiversity protection, land tenure, and political security. Using qualitative methods, including focus group discussions and key informant interviews, the findings reveal that forest degradation threatens food supply, economic well-being, cultural heritage, and biodiversity, while fostering insecurity and criminal activities in forest reserves. Conversely, sustainable forest management enhances community resilience, climate stability, and poverty reduction. The study recommends participatory governance, secure land tenure, alternative livelihoods, and integration of indigenous knowledge for effective conservation and improved human security.

Keywords: Forest conservation, forest management, human security, forest-adjacent communities.

1. Introduction

Nigeria is endowed with rich biodiversity, which has historically supported its ecological stability and socio-economic development. However, in recent decades, this natural wealth has come under severe threat due to rapid deforestation driven by multiple factors, including illegal logging, fuelwood and charcoal production, agricultural expansion, infrastructural development, and extractive industries (Cadmus Group, 2020; UN, 2022). The degradation of forest ecosystems has significant implications for human security, as it erodes ecosystem services that underpin food security, livelihoods, and environmental stability.

Forest reserves that once managed for sustainable timber production, have now become highly fragmented and degraded. They have been overtaken by destructive activities such as illegal logging, bush burning, and poaching. More alarmingly, these forests have evolved into safe havens for criminal activities, serving as hideouts for insurgent groups, bandits, and other armed factions (Federal Government of Nigeria, 2021; Amusa, 2024). This reality illustrates the growing intersection between environmental degradation and insecurity.

The scale of forest loss particularly between 2001 and 2021 in Nigeria, amounting to approximately 1.14 million hectares (2.82 million acres) of tree cover, representing an 11% decline and resulting in about 587 million tons of carbon dioxide emissions (EcoHubMap, 2024). This loss has been particularly acute in Ondo State, where humid primary forests declined by 26% from 2002 to 2024, with 37.6 kha lost (Global Forest Watch, 2024).

Historically, Ondo State's Forest reserves were critical in supporting human security by providing food, income, and ecological services to local communities. Today, these reserves are severely fragmented, ecologically degraded, and increasingly associated with insecurity. Forested landscapes have become hotspots for violent crimes, including mercantile kidnapping, insurgent operations, and ritual killings (Ladan, 2014; Odutan et al., 2013). These trends are exacerbated by weak regulatory enforcement, poor governance, and the marginalization of local communities in forest management.

The socio-economic implications of these changes are profound. Indigenous and forest-dependent

communities in Ondo State rely heavily on forests for subsistence, income generation, and ecosystem services such as water regulation and soil fertility. The ongoing degradation and insecurity in forest reserves undermine these benefits, threatening community well-being and resilience. Despite the clear link between environmental integrity and human security, the relationship between forest conservation and human security remains poorly understood, particularly in the context of Ondo State. This gap presents a critical research opportunity to explore how conservation efforts or the lack thereof shape multiple dimensions of human security, including food availability, livelihood stability, environmental resilience, and personal safety. Recognizing forest conservation as more than an ecological concern, but as a cornerstone of human security, is essential for informed policy-making. Inclusive and well-managed conservation strategies that address deforestation, control illegal logging, and promote sustainable land-use practices can deliver substantial human security benefits. Therefore, this paper specifically, examines how forest conservation influences multiple dimensions of human security in Ondo State, Nigeria. Understanding this interplay is not only vital for strengthening local resilience but also for advancing global climate objectives and promoting sustainable development.

2. Literature Review

The concept of human security has evolved significantly since its introduction by the United Nations Development Programme (UNDP) in its 1994 Human Development Report, ahead of the 1995 World Summit for Social Development (UNDP, 1994). The report emphasized the need for a broader framework to address complex and interconnected global challenges that traditional security paradigms, focused primarily on state sovereignty and protection from external military threats, could not adequately capture. Unlike traditional security paradigms, which prioritize national borders, sovereignty, and defense against external military threats, human security adopts a broader, people-centered approach. It encompasses dimensions such as economic, social, health, environmental, food, political, personal, and community security (Zyla, 2019). This holistic approach underscores the principle that peace and stability cannot be achieved without ensuring the survival, livelihood, and dignity of individuals.

Human security advocates for integrated policies that build resilience and empower communities to manage vulnerabilities and risks. It draws attention to emerging global threats such as climate change, pandemics, and resource scarcity, framing them as human-centered challenges that demand coordinated solutions. By placing individuals at the core of development strategies, human security becomes a unifying framework for addressing diverse priorities such as poverty reduction, human rights, inequality, education, health, and sustainable livelihoods. This orientation aligns strongly with the objectives of the Sustainable Development Goals (SDGs) and facilitates multilateral cooperation in tackling issues that transcend national boundaries (World Academy, 2024).

Within the context of land-based resources, particularly regarding forests, human security underscores the critical role of forest conservation in safeguarding biodiversity and ensuring equitable access to ecosystem services including the rights to food, health, and a decent standard of living. International agreements such as multilateral environmental accords explicitly recognize these linkages by addressing illegal logging, biodiversity loss, wildlife trafficking, and pollution (Okumu, 2017).

Forest conservation is widely regarded as a fundamental contributor to human security. Transparent governance, access to information, and community participation in decision-making are essential principles that promote equitable and sustainable use of forest resources while reducing the likelihood of misuse or conflict (Okumu, 2017). Beyond their ecological functions, forests provide a wide range of goods and services—such as timber, non-timber forest products, and watershed protection—while supporting rural livelihoods and contributing significantly to national economies through raw material supply and export opportunities (Siryi et al., 2005; Amusa, 2024).

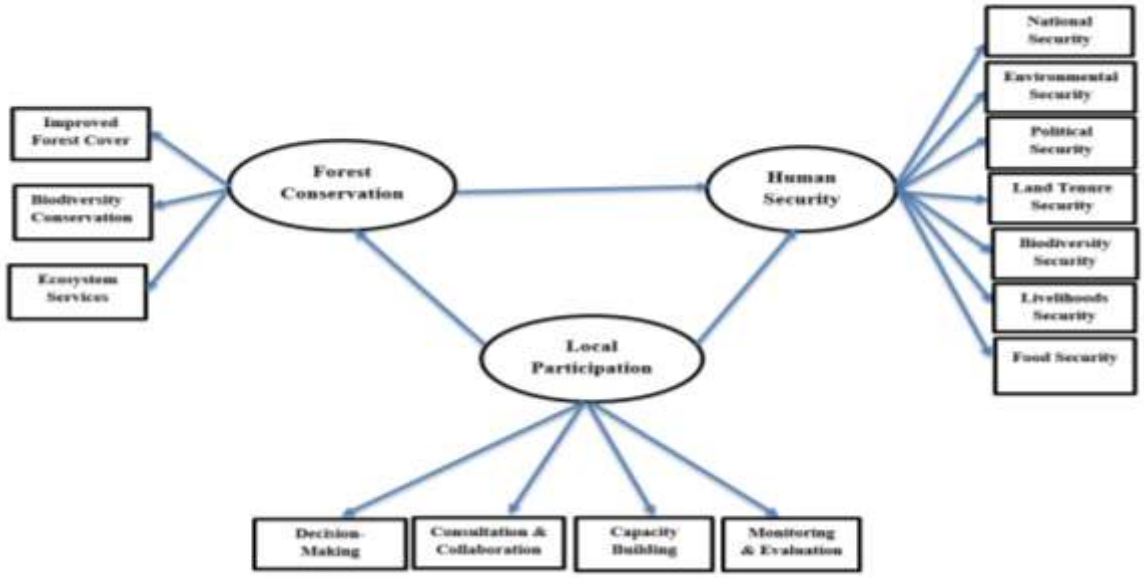


Figure 1: *Conceptual framework*
Source: *Research formulation*

In addition to these economic and ecological benefits, forests are indispensable for sustaining societal well-being and stability. Effective forest conservation not only preserves ecosystems but also enhances carbon sequestration, mitigates climate risks, and reduces environmental vulnerabilities. These measures have direct implications for human security, particularly in addressing food insecurity, livelihood challenges, and resource-related conflicts. The international community has long recognized this relationship, as reflected in global agreements designed to protect biodiversity and promote sustainable resource use (Okumu, 2017).

The interdependence between forest conservation and human security is therefore evident. Conservation efforts that focus on halting deforestation, curbing illegal logging, and promoting sustainable land-use practices can strengthen local resilience while safeguarding environmental integrity. However, such initiatives achieve greater success when they incorporate local knowledge and actively engage communities as partners in resource management. In the context of growing climate uncertainty and socio-economic vulnerabilities, integrating human security principles into forest conservation planning is essential. Doing so not only enhances ecological sustainability but also addresses pressing human needs by improving food security, generating livelihoods, and fostering long-term stability.

3. Theoretical Review

This paper is grounded in Ecological Systems Theory, developed by Urie Bronfenbrenner (1988), to analyze the intersection of forest conservation strategies and human security. The theory outlines five nested environmental systems such as microsystem, mesosystem, exosystem, macrosystem, and chronosystem which interact dynamically to influence both human development and environmental conditions (Bronfenbrenner, 1988; Bronfenbrenner & Ceci, 1994).

The microsystem represents the most immediate environment affecting an individual, involving direct interactions with biotic and abiotic factors, thus exerting the greatest influence (Bronfenbrenner, 1988). The mesosystem encompasses interactions among various microsystems. For a child, this includes relationships between family members, teachers, and peers. Similarly, in forest ecosystems, interactions among different site conditions affect overall forest health. Climate change mitigation efforts must integrate with broader national and local forest management objectives to ensure coherence. The exosystem includes broader community influences, such as mass media and public services, which indirectly affect the individual. In forests, this layer is akin to how external factors like fires or pests impact forest composition. These disturbances influence the forest ecosystem's structure and function; just as external community changes affect a child's

development (Bronfenbrenner, 2005). The macrosystem represents the overarching cultural and societal values, laws, and customs. This layer illustrates the complex interactions between various systems and emphasizes that individuals, like children, are active participants in their environments, affecting and being affected by them (Bronfenbrenner, 1988). The chronosystem is the fifth outermost ring in the Bronfenbrenner's Ecological systems theory, being based on environmental changes overtime and these changes can significantly affect how individuals develop.

In applying this theory to forest ecosystems, the microsystem represents direct environmental conditions such as soil quality, climate, and biodiversity. These elements are analogous to the immediate influences on an individual's development. For instance, empirical studies like Ihenyen et al. (2009) and Akinsoji (2013) highlight the importance of protecting local biodiversity and tree species to sustain forest health, much like nurturing environments are essential for child development. The mesosystem, which focuses on interactions between various microsystems, parallels the interplay among ecological factors and land-use dynamics. Ati et al. (2010) illustrate this through GIS-based analysis showing the loss of forest cover due to agricultural expansion and urban development, a consequence of poor integration of environmental and developmental policies. At the exosystem level, broader societal influences such as policy, remote actors, and economic drivers indirectly affect forests and communities. Studies by Okpiliya (2013) and Oduntan et al. (2013) reveal how logging, grazing, and inadequate regulation significantly contribute to forest degradation. This supports Bronfenbrenner's assertion that exogenous systems like mass media or political decisions can shape outcomes even without direct contact.

The macrosystem, encompassing cultural norms, governance structures, and societal values, plays a pivotal role in shaping environmental outcomes. Jimoh et al. (2018) and Ojo and Asinwa (2022) emphasize how governance quality, enforcement of forestry laws, and socio-political stability impact forest sustainability. Cultural attitudes toward forest use and ownership also influence conservation behavior, aligning with the theory's proposition that overarching systems influence the behavior of sub-systems. Finally, the chronosystem, which considers time-based changes such as environmental succession or policy evolution, reflects long-term trends in forestry management. For example, Neugarten et al. (2024) analyzed deforestation patterns in Madagascar and revealed how political crises impact conservation effectiveness over time. Similarly, Oluwole et al. (2017) demonstrate that continued forest depletion in Uganda correlates with declining environmental security over decades.

Empirical evidence overwhelmingly supports the theoretical claim that dynamic interactions within and across systems determine both environmental and human outcomes. Sidi et al. (2022) show that forest regeneration contributes to climate change mitigation via carbon sequestration, enhancing environmental security. Likewise, studies by Adekunle et al. (2017), Ojo et al. (2019), and Akindele et al. (2020) confirm that community participation in forest management not only enhances conservation outcomes but also improves social equity, livelihood resilience, and conflict resolution.

4. Research Methodology

The study adopted a cross-sectional survey design, primarily employing a qualitative ethnographic approach. The choice of a qualitative ethnographic approach is to gain insider perspectives through immersion and participant observation which provide rich narratives from diverse community actors. The population of this study is 252,464 consisting of the population of two selected local government areas (Akure South and Idanre LGAs) according to 2006 census. A multi-stage sampling approach was employed, involving purposive selection of forest-based local government areas, random selection of eight communities within a five-kilometer radius of the forest reserves, and proportional sampling was employed to select respondents of the study based on the size of the sampled forest reserve communities. The communities were clustered into different categories of respondents, including retired and current staff of the Ministry of Agriculture and Forest Resources, community stakeholders, forest contractors and other forest users. Data were collected through focus group discussions (FGDs) and key informant interviews (KIIs). A total of 136 respondents participated in the study. Data were analyzed through thematic analysis to draw out key themes and patterns from the interview and focus group transcripts.

5. Thematic Analysis

5.1 Forest Reserves in Ondo State Nigeria

There are 17 forest reserves in Ondo State, 12 of which are in the high forest. Out of the 12 forest reserves in the high forests in Ondo State, two were purposively

selected. The selected Forest Reserves were: Akure and Idanre Forest Reserves.

5.2 Akure Forest Reserve

Akure Forest Reserve is a protected area in southwest Nigeria, covering 66 km2 (25 sq mi). The forest reserve was established in 1948 and spanning approximately 32 hectares. It was created with the primary aim of safeguarding the genetic diversity of the forest ecosystem (Adetola, Bukola & Omotomilola, 2023). Approximately 11.73% (8.2 square kilometers) of the area is estimated to have been cleared for cocoa and other crop farming. The forest is owned by the Aponmu and Owena Yoruba-speaking communities, though there are also smaller settlements around it, including Ipogun, Kajola/Aponmu, Kajola, Ago Petesi, Akika Camp, Owena Town, Ibutitan/Ilaro Camp, Elemo Igbara Oke Camp, and Owena Water new Dam.

Within the forest reserve, an area of about 600 hectares of forest was set aside as the Strict Nature Reserve (SNR), often referred to as the "Queen's plot" This site is among Nigeria's Strict Nature Forest Reserves. SNRs, along with wilderness zones, are designated areas primarily intended for research and safeguarding extensive, untouched wilderness regions. Their main goal is to conserve biodiversity and serve as essential reference for scientific research and environmental monitoring.

The Forest Reserve attracts both nature lovers and history enthusiasts who are interested in experiencing the natural wonders and cultural treasures of the region. The forest reserve is characterized by diverse landscapes, including dense forests, grasslands, and rocky outcrops (Anifowose et al, 2014; Orimaye et al, 2017). The vegetation within the reserve consists of various types of trees, shrubs, rocky outcrops, dense forests, grasslands, and other plants, forming a diverse ecosystem. Wildlife species found in the forest reserve include monkeys, antelopes, birds, reptiles, and several species of insects. The area serves as an important habitat for these species and contributes to their conservation (Imarhiagbe, 2020).

The Akure Forest Reserve holds cultural significance for neighborhood groups. it could be associated with conventional beliefs, ceremonies, or practices that are deeply embedded in the cultural heritage of human beings. Some areas within the wooded area are additionally held unique religious or religious significance for positive groups. Sacred groves, for instance, are not unusual capabilities in lots of forests and are respected as sacred places of worship or as a spiritual tribute to the magnificence of nature. The forest also has historical ties to the community, serving as a place of ancient events, settlements, or ancient practices. These connections are of splendid significance to the cultural identification of the neighborhood populace.

Like many natural areas globally, it faces several challenges and threats that endanger its ecological integrity and the benefits it provides to local communities. It is home to diverse plant and animal species, including many endangered ones. Significant challenges to Akure Forest Reserve, including illegal logging, poaching, encroachment, and the presence of bandits and other armed groups. These activities disrupt the ecological balance, threaten biodiversity, and hinder sustainable forest management.

The Akure Forest Reserve is one of the country's significant biodiversity hotspots. Despite being designated for conservation, it has suffered extensive degradation due to weak enforcement of forest policies, and socio-economic pressures. The reserve is home to diverse flora and fauna, and its destruction has far-reaching ecological and socio-economic consequences. Studies have shown that the removal of trees disrupts habitat quality, alters the structure of forest ecosystems, and threatens the livelihoods of communities dependent on forest resources (Onyekwelu, Jonathan, Olusola & Johnson 2016; Uwalaka et al, 2018).

5.3 Idanre Forest Reserve

Idanre Forest Reserve is in Idanre local government area of Ondo. The Forest Reserve is the second largest Forest reserve in Ondo state, covering a total land area of 540.53km2. It lies between the latitude 6o51'28" North and longitude 5o6'20"East. It is bounded by Ore – Benin express road in the south, river Ofusu to the East and river Owena to the West. Idanre Forest Reserve is a protected natural area, and it encompasses a significant portion of the Idanre Hills, which are a cluster of rugged and picturesque hills in the region and it serves as an important conservation area for the local flora and fauna. The forest reserve is characterized by diverse landscapes, including dense forests, grasslands, and rocky outcrops. The Idanre Forest Reserve offers a unique blend of natural beauty, cultural heritage, and adventure. It attracts both nature lovers and history enthusiasts who are interested in experiencing the natural wonders and cultural treasures of the region (UNESCO, 2023; Tella, 2017; Ale, Alade & Ogunruku, 2020).

The Idanre Forest Reserve is known for its rich

biodiversity, supporting a wide range of plant and animal species. The vegetation within the reserve consists of various types of trees, shrubs, rocky outcrops, dense forests, grasslands, and other plants, forming a diverse ecosystem. Wildlife species found in the forest reserve include monkeys, antelopes, birds, reptiles, and several species of insects. The area serves as an important habitat for these species and contributes to their conservation.

The ecological significance of Idanre Forest Reserve extends beyond its boundaries. The reserve is part of a larger forest ecosystem that includes other protected areas, such as the Omo Forest Reserve and the Upper Ogun Forest Reserve. The forest ecosystem provides critical ecosystem services, such as regulating the local climate, maintaining soil fertility, and providing clean water. However, the reserve has faced challenges such as poverty-fueled deforestation and conflicts with farmers who have been evicted from the reserve. These challenges threaten the ecological significance of the reserve and its ability to provide critical ecosystem services.

It is noted that agricultural activities like farming is now taking place in Idanre Forest. This is encroaching on its reservation. It got so bad that the farmers were taking to court. Thought, the court ruled that they will not be forcefully removed from the site. It was stated that the court restrained the Ondo government from forcefully removing the farmers in the forest. There is evidence that there is contention over the forest reserve of Idanre Forest Reserve. This is an indication that the forest is in danger due to human activities. Previously, the villagers were given part of the forest for farming; along the line the Ondo government now thought it worth to sell off part of it to a company and are now planning to take it back from them.

The forest in the recent times has become endangered due largely to widespread incidences of attacks, killings, and kidnapping for ransom by harmed men who are supposedly herders and their local collaborators who have taken over many of the forest estates in Nigeria. This unsavory development has created so much fear/terrorand has negatively impacted on forestry and allied activities in adjoining forest reserve communities in recent times.

5.4 Forest Conservation and Human Security

The forest management approaches employed by the forest management authority have far-reaching security implications that span environmental, social, economic, and political dimensions. As these forests are essential components of the communities' ecosystem and play a pivotal role in the livelihoods of local communities, any mismanagement or unsustainable practices can result in a myriad of security challenges. In this context, it is crucial to examine and understand the multifaceted security implications arising from the current approaches to forest management in the study area.

5.4.1 Forest Conservation and Food Security

Forests act as a natural safety net during agricultural failures or food shortages by providing fruits, nuts, fuelwood, and other essential resources. Consequently, the increasing threats from deforestation and forest degradation pose significant risks to food security. Forest loss affects food security by diminishing forest-based food sources and increasing dependence on less sustainable or more expensive alternatives.

However, addressing threats to forests and promoting sustainable resource use, ultimately enhances food security and well-being. While protecting forests through conservation is crucial for maintaining food security and economic stability. This is noted during focus group discussions (FGDs), participants affirmed that,

"Food security is essential for maintaining health, preventing malnutrition, and ensuring that individuals can live active and productive lives. It is a critical component of overall human security and well-being, that highlighting the positive impacts of forest conservation on food security"

Forest management approaches without effective conservation strategies and policies worsen food supply and health security, because agricultural expansion due to land scarcity pushes farmers to clear forest areas, often causing soil degradation, erosion, and disruption of water cycles. Thus, degradation increases human exposure to zoonotic disease outbreaks. According to the president of the association of women herbal producers, she noted that,

"Forests house medicinal plants and help reduce the emergence of diseases. their conservation contributes to public health and biosecurity; unsustainable practices can result in a myriad of health security challenges"

By ensuring sustainable management of forest resources, it is possible to address food insecurity, support local economies, and reduce economic stress. Effective conservation strategies contribute to a more resilient and secure future.

5.4.2 Forest Conservation and Human livelihoods

Forests resources are essential to the livelihoods of forest-dependent communities. Forests are incredibly valuable for communities located near these reserves, offering a range of benefits that enhance their well-being and economic stability. Forest resources significantly contribute to the income of forest-adjacent communities. Employment related to forests includes direct roles such as forestry jobs and self-employment in activities like beekeeping, fuelwood collection, handicrafts, and cottage industries. To ensure sustainable livelihoods for communities that depend on these natural resources, key informants stressed the importance of training in sustainable practices, and ecotourism skills can empower forest-dependent communities to contribute to conservation while improving livelihoods, as proposed by some of the study participants.

"We rely on non-timber forest products (NTFPs) to survive. The forest provides us with charcoal, mushrooms, and medicinal plants we can sell to make ends meet. The women make a paltry picking and selling products like honey, nuts, and soap leaves. In the past, we could hunt bush meat, but with government restrictions and the fear of getting arrested, that's almost impossible now. Many of us depend on the forest for hunting and logging because there aren't many job options out there."

Responds to livelihood concerns by making conservation economically rewarding. A forest officer in Ipogun/Kajola community emphasized that,

"We support community cooperatives and forest-based enterprises that provide income while promoting reforestation and conservation".

However, the president of the herbal medicine practitioners in Ago Petesi, Akure South local government area countered that,

"Forests are crucial for our community, serving as sources of herbal medicine, fuel wood, bush meat, freshwater protection, and a way to connect with nature. The lack of support for forest-based livelihoods has left us in a vulnerable economic situation and disheartened from engaging in conservation".

Historically, forests offer economic opportunities through ecotourism, resource harvesting, and community-driven enterprises. By integrating conservation with community needs, livelihoods improve, consequently alleviating poverty. Successful initiatives that focus on capacity-building, like training and educational programs, equip community members with the skills needed for effective forest management and conservation, leading to better job prospects and reduced reliance on unsustainable practices.

According to a forest officer in Ipogun/Kajola community maintained that:
"Investing in conservation creates jobs in ecotourism, forest restoration, non-timber forest product value chains, as well as offering pathways to employment and poverty reduction".

Focus group discussions (FGDs) with the women herbal producers highlighted that:
"We're not opposed to conservation, but what support or alternative livelihoods is the government providing for those of us reliant on forest products? We've already lost control over the forest; illegal loggers are exploiting it and bringing in armed men to protect their activities, leaving us fearful of attacks."

In addition, the secretary of Ipogun/Kajola community development association acknowledged that conserved forests could help communities sustain their farming, hunting, and gathering. When people have access to forest resources, there is less tension and more cooperation, building a more secure society.

5.4.3 Forest Conservation and Social-cultural Security

Forest conservation scrutinizes the social and cultural security concerns arising from the potential displacement of indigenous communities and the erosion of traditional knowledge and practices closely tied to these forests. Recognizing and acting upon the interconnectedness of forest conservation, and social and cultural security, focus group discussions (FGDs) noted that,

"Active community participation strengthens commitment and resource allocation towards conservation efforts, driven by deep personal and cultural ties to the forest. The integration of indigenous knowledge with scientific methods significantly improves conservation practices".

The discussions underscore well-managed forests that reduce land-use conflicts and resource-based violence between communities, loggers, herders, and other groups. Conservation policies help maintain peace and stability, preventing conflict over dwindling natural resources.

The discussions also advocate for forest conservation

that contributes to social cohesion and cultural preservation, since many indigenous communities derive their identity, spirituality, and traditions from forests. Conservation protects these cultural values which are essential aspects of human security.

Recognizing how conservation reduces human displacement and social pressure, which can lead to insecurity, the Director of Forestry Department remarked that conservation can help prevent forced migration and ensure stability in forest communities due to rising conflict from deforestation because when forests are protected, there are fewer disputes with external actors. According to the High Chief, Olu-ode of Owena, when forest conservation respects local people, it prevents security threats and promotes human well-being.

5.4.4 Forest Conservation and Environmental Security

Forest conservation is essential for maintaining environmental security because forests play a fundamental role in preserving ecological balance and combating climate change. Forests are vital in mitigating climate change through carbon sequestration; they absorb and store carbon dioxide, which reduces greenhouse gas concentrations in the atmosphere. However, the exploration into the environmental security threats posed by deforestation and habitat loss, which not only disrupt the delicate balance of local ecosystems but also contribute to global issues such as climate change. Rapid environmental degradation and climate change can exacerbate existing challenges and complicate conservation efforts, affecting participatory strategies.

The communities surrounding the Akure and Idanre Forest Reserves play a central and often underappreciated role in forest conservation efforts. These communities are not just passive residents or resource users; they contribute positively in the protection and sustainable use of the forest ecosystems. Their involvement covers a wide spectrum of activities, including sustainable agriculture, traditional ecological knowledge, and cultural stewardship. Such contributions argue for their consideration not only as users of conservation benefits but also as key partners in long-term environmental sustainability.

For instance, local farmers in both Akure and Idanre practice agroforestry by combining agricultural crops and farm trees, for the purpose of conserving canopy coverage and alleviating deforestation pressures. Agricultural crops, including cocoa, kola nut, and various indigenous species of tree, are cultivated in such a manner that promotes biodiversity and the ecological balance of the reserves. They testify that such land-use practices allow traditional farming to go hand in hand with conservation goals, creating synergies rather than conflicts between livelihood and environmental protection.

The qualitative data from the Director of the Forestry Department stated that,

"Forest conservation is not merely an environmental concern but a crucial aspect of human security. By ensuring the health and sustainability of forest ecosystems, we protect the myriad services they provide, which in turn supports the safety, economic stability, and overall well-being of communities"

Forests serve as a climate buffer for vulnerable populations. The conserved forests mitigate the impact of climate change by stabilizing rainfall, reducing flood risks, and preventing desertification, all of which directly affect human security. Forests act as natural protective barriers, shielding people from disasters. The key informant interview with a forest extension officer highlighted that,

"While deforestation often leads to soil erosion, landslides, and flooding, which can displace communities, forest conservation helps prevent such environmental disasters. Without forest conservation, we face more drought, flooding, and road damage, which affects both local people and our logistics".

5.4.5 Forest Conservation and Biodiversity Security

Forests are essential for maintaining biodiversity by providing habitat and resources for a wide range of species. The conservation of forests and related ecosystems is critical for preserving biodiversity.

In Akure and Idanre forest communities, cultural norms and traditional practices are upheld to serve conservation purposes, e.g., protecting sacred groves. These systems of custom provide governance by virtue of being socially accepted and locally enforced, and they thus sustain biodiversity conservation informally but efficiently.

The conservation efforts of these communities in mitigating the adverse impacts of climate change should be recognized. The agroforestry systems, which help forest scapes to maintain some carbon stock through forest cover, provide adaptive

agricultural systems consisting of drought-resistant crops and conservation of water for resilience to climate variability. These grassroots efforts in environmental change ultimately assist in the resilience of the forest reserves.

Forests support diverse species by offering crucial habitats and ecological niches, which are vital for ecosystem resilience and biodiversity health. Protecting forests can enhance biodiversity by maintaining ecological processes that support wildlife. Adopting an ecosystem-based approach improves the effectiveness of conservation efforts and ensures the long-term health and sustainability of both terrestrial and marine environments. Effective governance and sustainable management practices are necessary to address the complex challenges facing biodiversity and achieve comprehensive conservation goals.

5.4.6 Forest Conservation and Land Tenure Security

Land tenure security and agricultural development have significant implications for forest conservation. Weak land tenure security, where the government retains ownership and revoke land-use rights, undermines incentives for sustainable forest management.

In Akure and Idanre forest communities, smallholder farmers with insecure land tenure are less engaged in long-term conservation efforts, increasing the risk of deforestation. Without secure land tenure, land conversion for agriculture is leading to significant forest loss. Insecure land tenures sometimes lead to conflicts over land use and resource control, destabilizing communities and undermining political stability.

In Ondo State generally, lack of secure land tenure or forest user rights is a key reason forest-adjacent communities do not commit to participatory forest conservation. Without such rights, individuals face an uncertain future. However, once people gain land or user rights, they become more interested in forest conservation. Focus group discussions (FGDs) reveal that specific demographics, including indigenous communities face exclusion due to a lack of legal recognition, poor consultation, and conservation models that prioritize external interests over local needs. Indigenous communities lack legal recognition of their land rights. Without formal ownership, they are seen as squatters or encroachers, making it easier to deny them participation.

6. Forest Conservation, Political Instability and National Security

Political instability can affect various aspects of forest governance, including forest management and conservation efforts. Understanding how conservation strategies perform during and after political crises is crucial, especially in biodiversity-rich areas facing both ecological and political challenges. Highly regulated authority may enhance forest management, as local communities may take over or gain the capacity to protect forest ecosystems more effectively. Such transitions can lead to increased land tenure security and improved political and economic stability, potentially reducing poverty and boosting rural employment.

In Ondo State, forest management approaches employed have profound implications for political instability and national security. Forests are increasingly exploited for criminal and insurgent activities. Forests are increasingly used by insurgents to launch attacks and conduct guerrilla operations against the state and its economic interests. These areas provide cover for highway robbers, thieves, kidnappers, and cattle rustlers, complicating law enforcement efforts to address these threats effectively. Different parts of Nigeria exhibit forests being a security threat, as some people have taken these forests for granted for their unlawful activities. Particularly, the Akure and Idanre Forest Reserves in Ondo State have turned into security threats for the people of Ondo State.

Both reserves are used as criminal hideouts, particularly for herders' activities which complicate community access and conservation efforts. The herders have taken large parts of the forest. A female study participant from the Aponmu community shared her experience of how cattle destroyed her farms.

"I remember the day like it was yesterday when I had just returned from the market, one of my neighbors rushed to tell me that a group of Fulani herders had passed through my cassava farm. By the time I got there, I nearly fainted. My cassava, maize, and vegetables were gone, all trampled, eaten, or uprooted by the cattle. Months of hard work, gone in a single day. That farm was my only source of income where I fed my children and paid for their school fees".

The forest has since become a lawless zone. People avoid going to the forests unless absolutely necessary. Some farmers have been attacked on their way to the farm, while others have been kidnapped for ransom. We are often threatened by herders with weapons,

especially when we try to stop cattle from eating our crops, as reported by Olu-ode of the Owena community. He further narrated how illegal armed loggers were threatening people in the areas, expressing that,

"We no longer sleep with our two eyes closed. The forest that fed our fathers and kept our children alive is now a battlefield where strangers, heavily armed, and ready to kill anyone who challenges them. We often confronted them by raising our voices that they have no right here while they also raised their rifles and threatened to shoot. I remember a sad day when one of our youths tried to reason with them. One of the men raised his gun and fired. Just like that. He dropped right there in front of us. We ran for our lives and were helpless. We also had cases of houses being burnt and villagers fleeing due to fear of reprisal attacks. Vigilante groups and other security operations always help address these issues".

A member of the Amotekun network who was interviewed also recounted an experience,
"We heard reports from hunters that kidnappings were taking place. So, we gathered, five of us, and entered the forest around 2 a.m. armed with local rifles, machetes, and prayers. We walked quietly, watching because we know the forest better than they do -the rivers, the tall trees, the hidden paths. That's our only advantage. That day, we spotted their camp near the Osun state boundary. But before we could get closer, they saw us first. Gunfire echoed- real rifles, not our local rifles. We dropped to the ground and crawled back. One of us, Ibrahim, was hit in the leg. We had to carry him for miles before we reached the village".

Insecurity prevents community members from patrolling and monitoring the forest reserves. In Ipogun/Kajola, interviewees report the encroaching presence of criminals, making it diffult for them to engage in conservation activities such as the prevention of illegal logging or poaching. Similarly, in Idanre, the activities of herdsmen and hiding places for criminals hinder conservation efforts. According to an interviewee in Ipogun/Kajola,
"The forest is left open, no security, no checks. That's why herders, bandits, and unknown people are using it freely. They have allowed illegal loggers to exploit the forest. Now, they bring in armed men to protect their illegal activities. We have lost control of the forest, so people now live in fear of attacks."

The lack of consistent government presence, as noted by retired forestry officers involved in the FGDs, leads to the continuous exploitation of these forests in Akure and Idanre. Poor management, which includes insufficient personnel and surveillance technology, enables criminals in these reserves to act without fear. As noted by the interviewees in both forest reserves, there is weak law enforcement of forestry law due to corruption among forestry officials. This is consistent with a study conducted by Akinola (2025), which indicated that 33% of Aponmu respondents cited corruption as a barrier to curbing illegal logging, while 25% pointed to political interference.

7. Discussion

The study reveals that forest conservation plays a vital role in human security across multiple dimensions. Forests provide a natural safety net during agricultural failures by supplying essential resources such as fruits, nuts, and fuelwood. However, deforestation and degradation undermine food security by reducing access to these resources, causing soil erosion, and increasing vulnerability to zoonotic diseases. Effective conservation strategies were noted to enhance food security and protect public health.

The findings also highlight the economic significance of forests for local livelihoods, particularly through non-timber forest products and forest-based enterprises. Many forest-adjacent communities depend on these resources for survival, yet limited government support and exclusion from decision-making discourage participation in conservation efforts. While opportunities exist in ecotourism and sustainable enterprises, lack of alternatives forces reliance on unsustainable practices, creating economic insecurity.

Social and cultural security emerged as another critical dimension, as forests are deeply tied to indigenous identity, traditions, and spiritual practices. Conservation strategies that respect these cultural ties foster community cooperation and reduce conflicts, whereas exclusionary policies risk eroding cultural heritage and fueling tension. Similarly, forests contribute significantly to environmental security by regulating climate, preventing floods and desertification, and sustaining biodiversity. Traditional practices like agroforestry and protection of sacred groves were observed as important for maintaining ecological resilience.

The discussion further establishes that biodiversity security depends on effective forest conservation, which ensures habitat preservation and ecosystem stability. However, insecure land tenure remains a major challenge, as farmers without recognized rights show low commitment to conservation. Granting land

and user rights can increase participation and reduce conflicts over resources. Finally, the study reveals that weak governance and corruption in forest management exacerbate insecurity, with reserves serving as hideouts for criminals, insurgents, and illegal loggers. This insecurity disrupts conservation efforts and endangers local communities, highlighting the need for integrated approaches that link conservation with security and governance reforms.

8. Conclusion

The findings underscore that forest conservation is integral to human security, influencing food availability, livelihoods, cultural heritage, biodiversity, environmental stability, and even political security. However, weak governance, insecure land tenure, and exclusionary policies exacerbate deforestation, resource conflicts, and criminal activities within forest reserves. To address these challenges, policies should prioritize participatory forest governance that empowers local communities through secure land tenure and forest user rights. Government and development partners should invest in alternative livelihoods such as ecotourism, non-timber forest product value chains, and forest-based enterprises to reduce dependency on unsustainable practices. Strengthening institutional capacity for law enforcement, deploying technology for forest monitoring, and combating corruption within forestry agencies are critical to curbing illegal activities. Furthermore, integrating indigenous knowledge into formal conservation strategies and promoting climate-smart agroforestry will enhance resilience and biodiversity protection. Finally, linking forest management with national security frameworks can mitigate the use of forests as criminal hideouts, ensuring both ecological sustainability and community safety.

References

Adekunle, M. F., Adekunle, V. A. J., Akintan, O. B., & Akintan, O. (2017). Community participation in forest management in Nigeria: A Review. *Journal of Sustainable Forestry*, 36(5), 475–489.

Akindele, S. O., Oluwalana, S. A., & Adeyemo, A. I. (2020). Conflict Resolution in Forest Management: A Case Study of Community-Based Approaches in Nigeria. *Nigerian Journal of Forestry*, 50(1), 45–56.

Akinsoji, A. (2013). Forest health assessment in Nigeria: A GIS-based approach. *Journal of Tropical Forestry*, 29(2), 112–125.

Amusa, O. D. (2024). Deforestation and land-cover changes in the forest reserves of Southwest Nigeria.

Ati, O. F., Salami, A. T., & Suleiman, A. (2010). GIS-based analysis of forest cover loss in Nigeria. *Nigerian Journal of Remote Sensing*, 7(1), 34–45.

Bronfenbrenner, U. (1988). Interacting systems in human development. Research paradigms: Present and future. In N. Bolger, A. Caspi, G. Downey, & M. Moorehouse (Eds.), Persons in context: Developmental processes (pp. 25–49). Cambridge University Press.

Bronfenbrenner, U. (2005). Making human beings human: Bioecological perspectives on human development. Sage Publications.

Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101(4), 568–586. https://doi.org/10.1037/0033-295X.101.4.568

Cadmus Group. (2020). Global forest resources assessment 2020: Nigeria report. https://openknowledge.fao.org/server/api/core/bitstreams/41b4762d-ee61-4a88-a18d-67a7ef42755b/content

EcoHubMap. (2024). Mass deforestation in Ondo State, Nigeria. https://www.ecohubmap.com/hot-spot/mass-deforestation-in-ondo-state-nigeria/3otyuml60f448x

Federal Government of Nigeria. (2021). Report on Forest Reserves and Insecurity in Nigeria.

Global Forest Watch. (2025). Ondo, Nigeria deforestation rates & statistics. https://www.globalforestwatch.org/dashboards/country/NGA/29/

Ihenyen, J., Okoegwale, E. E., & Mensah, J. K. (2009). Composition of tree species in Ehor Forest Reserve, Edo State, Nigeria. N*ature and Science*, 7(8), 8–18.

Jimoh, S. O., Amusa, T. O., & Azeez, I. O. (2018). Governance and forestry laws in Nigeria: Implications for Sustainable Forest Management. *Journal of Sustainable Forestry*, 37(4), 345–362.

Ladan, S. I. (2014). Forests and forest reserves as security threats in northern Nigeria. *European Scientific Journal*, 10(35), 120–142.
https://eujournal.org/index.php/esj/article/view/4867

Neugarten, R. A., Rasolofoson, R. A., Barrett, C. B., Vieilledent, G., & Rodewald, A. D. (2024). The effect of a political crisis on performance of community forests and protected areas in Madagascar. *Nature Communications*, 15(1),

2963. https://doi.org/10.1038/s41467-024-47318-0

Oduntan, O. O., Soaga, J. A. O., Akinyemi, A. F., & Ojo, S. O. (2013). Human activities, pressure and its threat on forest reserves in Yewa division of Ogun State, Nigeria. *E3 Journal of Environmental Research and Management*, 4(5), 265–272. https://www.e3journals.org/cms/articles/1371887488_Oduntan%20et%20al%202.pdf

Ojo, L. O., & Asinwa, I. O. (2022). Socio-political stability and forest sustainability in Nigeria. *Nigerian Journal of Environmental Sciences*, 15(2), 78–89.

Ojo, T. A., Olatoye, O. A., & Olaniyi, O. E. (2019). Social equity and livelihood resilience in Nigerian forest communities. *Journal of Rural Studies*, 68, 45–56.

Okpiliya, F. I. (2013). Logging, grazing and forest degradation in Nigeria: A Case Study. *Journal of Environmental Management*, 14(3), 210–225.

Okumu, B. O. (2017). Forest conservation strategies to mitigate the impact of climate change on human security in East Africa: A case study of Mount Kenya forest [Master's thesis, University of Nairobi]. http://erepository.uonbi.ac.ke/bitstream/handle/11295/103207/Okumu_Forest%20Conservation%20Strategies%20to%20Mitigate%20the%20Impact%20of%20Climate%20Change%20on%20Human%20Security%20in%20East%20Africa-%20a%20Case%20Study%20of%20Mount%20Kenya%20Forest.pdf?sequence

Oluwole, B. W., Callo-Concha, D., & Denich, M. (2017). Forest depletion in Uganda: Socio-environmental drivers and implications. Land Use Policy, 62, 49–58. https://doi.org/10.1016/j.landusepol.2016.12.012

Sidi, M., Abubakar, I., & Aliyu, B. S. (2022). Forest regeneration and carbon sequestration in Nigeria. *African Journal of Environmental Sciences*, 18(1), 112–125.

Siry, J. P., Cubbage, F. W., & Ahmed, M. R. (2005). Sustainable forest management: Global trends and opportunities. *Forest Policy and Economics*, 7(4), 551–561.

United Nations. (2022). National strategy to combat wildlife and forest crime in Nigeria 2022-2026. https://www.unodc.org/conig/uploads/documents/National_Strategy_to_Combat_Wildlife_and_Forest_Crime_in_Nigeria_2022-2026.pdf

United Nations Development Programme. (1994). Human development report 1994. Oxford University Press. https://hdr.undp.org/content/human-development-report-1994

World Academy of Art and Science. (2024). Peace & human security. Https://worldacademy.org/human-security/

Zyla, B. (2019). Human security. In Oxford bibliographies. https://doi.org/10.1093/obo/9780199743292-0261

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 37-41

Pros and Cons of Entrepreneurship Mentoring Education in Nigeria

OLADELE EMMANUEL OLABIMTAN, SIMIAT ADEYINKA OLOPETE
Rufus Giwa Polytechnic, Owo, Ondo State, Nigeria.

Abstract. This paper discusses the pros and cons of entrepreneurship mentoring, since entrepreneurship skills has gained popularity as a means to foster business, and it remain vital in the real sector and sustenance of economic development, growth and innovation. The paper explores descriptive survey method, through the use of articles and journals papers, magazine, library textbooks and relevant literature were duly reviewed for proper discussion of the pros and cons of entrepreneurship mentoring. The pros include access to valuable guidance, networking opportunities, and skill development. However, potential cons encompass mismatched expectations, dependency on mentors, and limited scalability. Understanding these dynamics is crucial for entrepreneurs, mentors, and organizations seeking to leverage mentoring for entrepreneurial success.

Keywords: Entrepreneurship, Education, Mentoring, Pros, Cons.

1. Introduction

An entrepreneurship mentoring in education, is not only link the gap between theoretical knowledge and practical experience but also making a provision for aspiring entrepreneurs with irreplaceable guidance, business connections, and career development chances. Mentorship demand an alliance where experienced proficient mentors proffer guidance, advice, and support to less experienced individual mentees. In the contextual relationship of entrepreneurship education, mentorship maintains a crucial role in helping students express academic concepts into practical craft skills. Mentoring offers genuine-world outlook, share their own entrepreneurial journeys, and help students sail the complexities of begin and running a business.

Most educational institutions implement structured mentorship programs with precise goals, activities, and timelines. These practices ensure that mentorship is systematically blended into the curriculum and ally with educational goals. And entrepreneurship is the willingness and ability of an individual to seek for investment opportunities, to establish and to run an enterprise successfully (Suleiman, 2006). The entrepreneurship spirit is a pre-requisite to an entrepreneurial society and culture. This spirit is required for the overall economic growth of any nation especially developing ones like Nigeria. This is in line with the view of Nwangwu (2006) that entrepreneurship is the willingness and the ability of an individual or a firm or an organization to identify an environmental change and exploit such an opportunity to produce goods and services for public consumption. In the words of Dangote as stated by Odjegba (2005) entrepreneurship is built on vision, focus and determination.

Entrepreneurship can be understood as the mindset and process to create and develop economic activity (European Commission, 2003). It is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychological and social risks, and relieving the resulting rewards of monetary and personal satisfaction and independence (Hisrich, Peter and Shepherd, 2008). Mentoring/mentorship has to do with personal developmental relationship in which a more exposed or experienced individual helps a less experienced person or a beginner to advance and acquire relevant knowledge that helps the less experienced to become better than he was. Mentoring is a part of many societal culture and way of life. Mentoring became common practice in the time of guides and trade apprenticeships when young people,

having acquired technical skills often benefited from the patronage of more experienced and established professionals. Most successful people in various works of life probably have had one or more people over the years that have exerted a particularly strong influence over their lives and careers (Wrong & Premkumar, 2007). Dudman, Lowbrrigde and Stevens (2011). In order to further address this issue, the Federal Government of Nigeria launched the National Economic Empowerment and Development Strategy (NEEDS) with the vision of equipping youths with various skills to make them self reliant and consequently make poverty a thing of the past in the country. In order to realize this vision, NEEDS focused on four key strategies: namely; reorienting values, reducing poverty, creating wealth and generating employment. (National Planning Commission, (NPC) 2005). To ensure co-ordination, it was matched with endorsement by states as well as a commitment to the development of their own State Economic Empowerment Strategy (SEEDS) (NPC 2005) Consequently, the National Universities Commission recently introduced Entrepreneurship as a course into the curriculum of Universities in Nigeria. The aim was to challenge and equip its graduates with entrepreneurial skills. While the progress is impressive it is still quite limited. A vast majority of Nigerians especially young graduates still cannot easily access entrepreneurship education and entrepreneurship resources.

The research methodology adopted for this study was descriptive survey. To this end, secondary data collection methods were used to collect necessary data for the study. In this regard, secondary data were gathered from text books, journals and internet facilities.

2. Literature Review

Curriculum developers have moved from foreign domination in terms of the content we learn. Our education has shifted from the acquisition of theoretical knowledge bringing in the era of skill acquisition through entrepreneurship.
The relevance of entrepreneurship became more prominent when the Federal Government of Nigeria mandated all higher education establishments in Nigeria to offer entrepreneurial studies as a compulsory module for all students irrespective of their discipline effective 2007/2008 academic session (Nwekeaku, 2013).

Duriana (2015), Mentorship often opens doors to valuable professional networks. Mentors can introduce students to industry contacts, potential investors, and other entrepreneurs. These connections are vital for students seeking to build their own ventures and establish a presence in the business community.

Valentinov and Thomson (2019), opined that mentors help students refine their ideas and approaches. Mentors can offer critical assessments of business plans, marketing strategies, and product development, enabling students to make informed improvements and avoid common pitfalls.

Lein, (2024), believed that mentorship in entrepreneurship is not only bridges the gap between theoretical knowledge and practical experience but also provides aspiring entrepreneurs with invaluable guidance, industry connections, and career development opportunities.

Sahlman (1987) viewed an entrepreneur as somebody who introduce something new in the economy. Onioha (2008), opined that an entrepreneur is any person who coordinates other factors of production and bears the risks or uncertainty by investing scarce resources in business ventures, which makes him take all the managerial decisions about the business enterprise. However, entrepreneurship is a procedure involving the employment of personal or private inventiveness or resourcefulness to change a business situation into a new undertaking.

According to Badi and Badi in Oduma (2012), entrepreneurial could be the diversifying of an existing business in such a way as to have potentiality for increase in project generation. An entrepreneur usually discovers an area to capture for advancement and thereby channels money, and relevant resources to it.

Akinbode, (2009), opines that entrepreneur as the man who perceived business opportunities and takes advantage of the scarce resources to use them profitably. Owoseni, (2009), asserted that entrepreneurial is a specialised training given to students of vocational and technical education to acquire the skills, ideas and managerial abilities and capabilities for self-employment rather by being employed for pay.

According to Odiorne (1985), mentoring is a personal departmental relationship in which a more experienced or knowledgeable person helps to guide a less experienced or knowledgeable person. This always involves dialogue and challenge. Bozeman and Feeney (2007) defined mentoring as a process for the information transmission of knowledge, social capital and psycho – social support. Mentoring also refers to

a relationship which gives people the opportunity to share their professional and personal skills and experiences, and to grow and develop in the process. It often involves a one-to-one relationship. It equally plays a major role in updating the competencies of beginning or subordinate entrepreneur.

Suleiman (2010), believed that entrepreneurship seeks to prepare people particularly the youths to be responsible to become an entrepreneurial thinker by engaging them in real life learning experience that will enhance them to take a risk. From the literature reviewed the following are the objective of the study: To emphasis on developing entrepreneurship skills through mentorship, to analyses networking opportunities through entrepreneurship mentoring, and provision of fostering innovation to enhancing employability.

3. The Cons of Entrepreneurship Education in Nigeria

Despite the profound benefits of mentoring in entrepreneurship education, it is still not fully blown in Nigeria. The problems that hinder the development of entrepreneurship education in Nigeria include the following:

3.1 Monetary Affairs

There is need for substantial funds for teachings in practical terms for entrepreneurial education; for financing start-ups and expansion of business ventures in order to produce successful entrepreneurs. These funds could come from internal sources like personal savings, financial support from friends, relations, traditional co-operative groups and societies or externally from institutions like banks, government agencies and nongovernmental organizations. These sources do not guarantee funds for youths' start-up and business expansion for the following reasons. The funds from internal sources are largely inadequate due to high poverty level. The graduates have little or nothing on themselves. On the other hand, accessing funds from external sources is difficult due to demand for collaterals by these agencies, and, in some cases requirements for part funding of the total money required for an entrepreneurship activity. The youths do not have these collaterals nor the part funding. The failure to present these denies them access to the funds required for the business ventures.

3.2 Insufficient Resources and Technology

The cost of equipment is quite high and cannot be offered by most Nigerians especially young graduates. This makes for difficulty in development of entrepreneurship as technology is closely related to entrepreneurship. It therefore calls for a need for the provision of affordable technologies.

3.3 Parental Financial Stress

There is often great pressure from some Nigerian parents who prefer their children making money in the short term over long term benefits of education. This makes it difficult for youths to devote enough time required for training in entrepreneurship. It is also as a result of such pressures that Nigeria is faced with a high rate of child labour without any skill in entrepreneurship.

3.4 Business Mindset

The wealth resources and rich endowment of mineral resources for Nigeria have largely allowed the Nigerian populace and even the government to be complacent. A great majority of the Nigerian people has utopian ideas; live in affluence in some cases more imaginary than attained. Furthermore, since it is believed that there is a strong climate for entrepreneurs, there is little or no worry about entrepreneurship education. The necessary drive for an entrepreneur is not there and this leads to poor performance in entrepreneurship. Supporting this view is the assertion by Akpa (2007), posited that an average entrepreneur is rugged and aggressive.

3.5 Information

Information about entrepreneurship education has been lacking. There is little or limited programme design for entrepreneurship education.

3.6 Lack of Infrastructural Facilities:

Due to lack of facilities like good roads, electricity, access to information, water supply etc. there is increased problem confronting the development of entrepreneurship education. There is difficulty of communicating ideas and wares with other areas. Without sales entrepreneurship cannot be fully blown.

3.7 Cross Cultural Challenge

Entrepreneurship requires a culture that respects risk taking. Without the willingness to take risks it is not possible to create value from knowledge. The culture

of risk taking in Nigeria needs to be properly addressed in view of its diverse cultures which often cause a barrier to investments.

3.8 Research Outreach

Success in entrepreneurship depends on critical research and openness with innovation ideas.

4. Pros of Mentorship in Entrepreneurship Education Expert Counsel

These include the following:

Mentors will bring a wealth of experience to the table: They provide students with actionable advice on various aspects of entrepreneurship, from developing business plans to managing finances and scaling operations. This guidance helps students apply theoretical knowledge in real-world contexts.

Professional Networking Opportunities: Mentorship often opens doors to valuable professional networks. Mentors can introduce students to industry contacts, potential investors, and other entrepreneurs. These connections are vital for students seeking to build their own ventures and establish a presence in the business community.

Assessment and Refining: Constructive assessment from experienced mentors helps students refine their ideas and approaches. Mentors can offer critical assessments of business plans, marketing strategies, and product development, enabling students to make informed improvements and avoid common pitfalls.

Talent Development: Beyond academic learning, mentorship provides students with talent development support. Mentors can guide students in identifying career opportunities, preparing for job interviews, and understanding industry trends, enhancing their overall career readiness, professional networks, and refine their entrepreneurial skills. By bridging the gap between classroom learning and industry practice, mentorship enhances the educational experience and prepares students for successful careers in

5. Conclusion

It is cleared fact that mentoring plays a vital role in updating the competencies of the mentees, their ability, knowledge, idealistic and skills at a starting point, only this root can guarantee the safety of acquisition of skills and the competencies which will definitely helps the societies to repositioning production and good service delivery thereby contributing to the country development.

6. Recommendations

In view of the essentialities of mentoring in entrepreneurship, the following are recommendations:

- The role of guidance and counseling in schools and tertiary institutions of learning should be prioritised with frequent workshops and seminars.
- Nigeria government should intensify efforts in entrepreneurship mentoring in order to polish human capital that will ascertain both the local and national social and economic development.
- Government should establish a Nigeria-wide web-based access point specifically for entrepreneurial mentoring.

References

Akpa, A. (2007). Challenges of the Nigerian Entrepreneurship in the twenty first century. A paper presented at the maiden Annual College of Management Sciences Seminar, University of Mkar.

Badi & Oduma, C.A. (2012). Fundamentals of Entrepreneurial Education. Abakaliki: Catholic Communication Link.

Bozeman, B. & Feeney, M.K. (2007). Towards a usuful theory of mentoring: A conceptual analysis and critique. *Administration & Society*, 39(6), 719-739.

Dariana, D. (2015). Principles of Economic-Ibn Taymiyah (moral analysis). 15 (1), 185-200.

Dudman, Lowbridge & Stevews (2011). An Introduction to enterprise mentoring. www. Mentorsme.co.uk/images/unctions-to-enterprise mentoring.

Feiner, S.F. & Robert, B.B. (1990). Hidden by the invisible hand neo classical economic theory: Treatment of race and gender. *Gender and Society*, 4(2), 159-181.

Hisrich, R, Peter, M.P. & Shepherd, D.A. (2008). Entrepreneurship. New Delhi: Tata McGraw-Hill Publishing Company Ltd.

National Planning Commission (2005). National Economic Empowerment and Development Strategy, Lagos, b3 Communication Ltd.

Nwangwu, I. O. (2006). Fundamentals of Entrepreneurship in Education Management. Enugu: Cheston Agency Ltd.

Nwekeaku, C. (2013). Entrepreneurship Education and challenges to Nigerian University, Nigeria. http//www.usdjournal.net.

Odiorne, G.O. (1985). Mentoring An American Management Innovation. *The Personnel Administrator*, 30(5). 63-70.

Oguejiofor &Umeh, U.F. (2017). Mentoring in entrepreneurship: Imperative for Nigeria's economic development. *Nigeria Journal of Business Education (NIGJBED),* Vol. 4 No1.

Onuoha, B.O. (2008). Small Business Enterprises: An overview in Small business management and entrepreneurship. Port Harcourt: African Entrepreneurship and Leadership Initiative.

Sonia, L. (2024). The role of mentorship in entrepreneurship education: Building bridges between classroom and industry. *Journal of Entrepreneurship Education*, 27(6),1-3.

Suleiman, A.S. (2006). The Business Entrepreneur: Entrepreneurial Development, Small and Medium Enterprises. Second edition Kaduna: Entrepreneurship Academic Publishing.

Valentinov, V., & Thompson, S. (2019). The supply and demand of social system: Theory of the firm Kybernetes 48 (3), 5 70-585.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 43-52

Depression, Self-Esteem, Coping Strategies, Social Support, and Hopelessness as Predictors of Psychological Distress among Unemployed Graduates in Lagos, Nigeria

OLUKEMI YETUNDE AKINYEMI
University of Ibadan, Nigeria.

Abstract. Unemployment remains a major socio-economic challenge with profound implications for the psychological well-being of young graduates. This study investigated the predictive roles of depression, self-esteem, coping strategies, social support, and hopelessness in psychological distress among unemployed graduates in Nigeria. A correlational research design was adopted, and data were collected from 126 unemployed graduates using standardised psychological instruments. Multiple regression analysis revealed that the predictors jointly accounted for 55% of the variance in psychological distress ($R = .74$, $R^2 = .55$, Adjusted $R^2 = .52$, $F(5,120) = 18.46$, $p < .01$). Depression and hopelessness significantly increased psychological distress, while self-esteem, coping strategies, and social support functioned as protective factors. These findings underscore the complex interplay of individual and social variables in shaping unemployed youths' mental health. The study concludes that interventions addressing depression and hopelessness, alongside programmes promoting resilience, social connectedness, and self-worth, are crucial for alleviating distress among unemployed graduates. It recommends multi-level approaches involving counselling, institutional support, and policy-driven initiatives to enhance psychological well-being and reduce the adverse mental health outcomes associated with graduate unemployment.

Keywords: unemployment, psychological distress, depression, self-esteem, coping strategies, social support, hopelessness.

1. Introduction

Unemployment among youth is a well-documented global challenge, with far-reaching psychological consequences. The United Nations reports that over one-fifth of young people worldwide are neither employed nor in education, leading to long-term social and economic exclusion (United Nations Department of Economic and Social Affairs, 2019). Systematic reviews highlight that the unemployed are at significantly higher risk of depression, anxiety, and suicidal ideation especially when joblessness is prolonged showing that psychological distress is both a universal and pressing concern (Zuelke et al., 2018; Olesen et al., 2013). These trends make it imperative to investigate how distress manifests in specific contexts, such as urban Nigeria.

In sub-Saharan Africa, young people are particularly vulnerable to the sequelae of unemployment due to economic instability and weak mental health infrastructure. A study in Ethiopia found that nearly one-third of unemployed young adults experienced depression, with longer unemployment periods and low self-esteem being key predictors (Mekiya et al., 2020). In Ghana, research emphasised that religiosity and social support can buffer mental distress during unemployment, though the support only directly, not fully, reduced psychological strain (Boateng et al., 2020). These findings underscore the importance of psychosocial resources but also the limits of such buffers in the absence of economic stability.

Within Nigeria, youth unemployment rates remain among the highest in Africa, contributing to severe psychological distress. Abiola et al. (2015) noted that resilience factors are critical for mental wellbeing among youths facing employment challenges. This is echoed locally in studies of vulnerable populations: Akinyemi and Aremu (2018) showed that solution-focused therapy alleviated psychological distress among people living with HIV—suggesting its potential relevance to unemployed youths facing similar emotional struggles. Akinyemi et al. (2018a) also found that socio-economic disadvantage

undermines academic performance, indirectly hinting at how economic strain can erode self-efficacy among unemployed graduates. Such Nigerian findings align with global consensus that unemployment undermines mental health via material deprivation and psychosocial stress.

In South-West Nigeria, additional insights show how peer and social dynamics shape psychological outcomes. Aremu and Akinyemi (2019) observed that peer influence strongly affects motivation among youths, implying that negative peer contexts during unemployment may aggravate distress through poor self-regulation or discouragement. Similarly, Fehintola and Akinyemi (2021) demonstrated the efficacy of mindfulness and cognitive training in improving emotional regulation among secondary students, suggesting that such interventions could help unemployed youths manage psychological strain by strengthening their coping skills.

Lagos State carries additional weight in such considerations. Its high cost of living, intense competition, and urban pressures create a uniquely stressful backdrop for unemployed youths. While empirical data specific to Lagos remains limited, national trends such as widespread youth unemployment (National Bureau of Statistics, 2022) suggest elevated distress among graduates unable to secure jobs. Community-based resilience models in Nigeria underline that social support rooted in kinship networks, religious ties, and neighbourhood associations can act as key psychological buffers amid economic hardship (Nwokoro & Ogba, 2018). Yet these supports may be strained in hyper-urban contexts like Lagos, where traditional communal bonds weaken under metropolitan anonymity.

Moreover, broader international literature empirically links unemployment to deteriorating mental health and demonstrates the role of structured coping and time structuring in reducing distress. For instance, Creed and Macintyre (2018) highlighted that employment provides daily structure, a sense of purpose, and social connection elements essential to psychological wellbeing. Qualitative work in Northern Europe on NEET (Not in Employment, Education, or Training) youth demonstrates how unemployment phases lead to stress-related symptoms (headaches, anxiety, substance use) and create a vicious spiral of disengagement (Lundberg et al., 2019). Interventions that support daily routine and meaningful activity have been shown to mitigate such spirals (Schreiner et al., 2022).

Despite these converging lines of evidence, there is a conspicuous research gap: no comprehensive study has simultaneously examined hopelessness, emotion dysregulation, social support deficits, and unemployment experiences as predictors of psychological distress among unemployed youths in Lagos. Local studies (Akinyemi & Aremu, 2018; Akinyemi et al., 2018a, 2018b; Aremu & Akinyemi, 2019; Fehintola & Akinyemi, 2021; Fehintola & Akinyemi, 2022; Omopo, 2024; Omopo, 2025; Quadri et al., 2025) provide valuable insight into components of this framework but have not been applied to the graduate unemployment context. Filling this gap can inform interventions tailored to Lagos's unique socio-economic landscape, strengthen urban mental health policymaking, and contribute to theoretical models linking unemployment to distress.

1.1 Purpose of the Study

The purpose of this study was to investigate the predictors of psychological distress among unemployed graduates in Lagos, Nigeria, with particular focus on clinical and psychosocial variables such as depression, self-esteem, coping strategies, social support, and hopelessness. The study seeks to explore how these factors interact to influence the psychological well-being of young graduates who face challenges of prolonged joblessness, financial strain, and uncertain futures. In doing so, the research aims to provide insights into the psychosocial vulnerabilities associated with unemployment and highlight pathways for targeted psychological and social interventions. Specifically, the objectives of this study were as follows:

- To examine the relationship between depression, self-esteem, coping strategies, social support, hopelessness, and psychological distress among unemployed graduates in Lagos, Nigeria.
- To determine the combined effect of depression, self-esteem, coping strategies, social support, and hopelessness on psychological distress among unemployed graduates in Lagos, Nigeria.
- To assess the relative contributions of depression, self-esteem, coping strategies, social support, and hopelessness to psychological distress among unemployed graduates in Lagos, Nigeria.

1.2 Hypotheses

The following hypotheses were tested at 0.05 level of significance:

- There is no significant relationship between depression, self-esteem, coping strategies, social support, hopelessness, and psychological distress among unemployed graduates in Lagos, Nigeria.
- There is no significant combined effect of depression, self-esteem, coping strategies, social support, and hopelessness on psychological distress among unemployed graduates in Lagos, Nigeria.
- There is no significant relative contribution of depression, self-esteem, coping strategies, social support, and hopelessness to psychological distress among unemployed graduates in Lagos, Nigeria.

2. Theoretical Framework

The present study is anchored on the Stress Process Model (SPM), which provides a framework for understanding how stressors, mediators, and outcomes interact to influence mental health. According to Pearlin et al. (1981), stressors such as unemployment, financial hardship, and uncertainty about the future serve as primary sources of psychological strain. These stressors may trigger negative psychological outcomes, including depression, hopelessness, and heightened distress. The model also identifies mediating factors such as coping strategies, social support, and personal resources like self-esteem, which may buffer or exacerbate the impact of stressors on mental health outcomes.

In the context of unemployed graduates in Lagos, the Stress Process Model is particularly relevant because it explains how prolonged joblessness operates as a chronic stressor that undermines self-worth, social integration, and emotional stability. For instance, inadequate coping strategies or weak social support networks may intensify psychological distress, whereas protective factors such as self-esteem and resilience may mitigate it. By situating the study within the Stress Process Model, it becomes possible to systematically examine not only the direct effects of unemployment-related stress on distress levels but also the moderating and mediating roles of individual and social resources.

3. Research Methodology

The study employed a quantitative survey design to investigate psychological distress among unemployed youths in Lagos State. A multi-stage random sampling technique was used to ensure adequate representation across the three senatorial districts of the state. In the first stage, three local government areas (LGAs) - Ikeja, Alimosho, and Surulere were randomly selected. Within each LGA, wards, streets, and households were systematically sampled to identify eligible unemployed youths between the ages of 18 and 35 years. From this pool, a total of 126 participants were proportionately selected. Data were collected using standardised instruments: the General Health Questionnaire (GHQ-12) to measure psychological distress, the Unemployment Distress Scale (UDS) to capture specific stressors linked to joblessness, the Brief COPE Inventory to assess coping strategies, and the Multidimensional Scale of Perceived Social Support (MSPSS) to evaluate the role of social support systems. These instruments were chosen for their robust psychometric properties and wide usage in cross-cultural research, ensuring validity and reliability of findings.

The data collection process was conducted by the researcher and trained assistants who administered the questionnaires face-to-face to enhance accuracy and completeness of responses. Informed consent was obtained from participants after clearly explaining the study's purpose, voluntary nature, and confidentiality of information provided. Ethical approval was secured from the relevant institutional review board, and participants were assured of their right to withdraw at any stage without adverse consequence. Completed responses were anonymised and safely stored to maintain privacy. Data were coded and analysed using the Statistical Package for Social Sciences (SPSS, version 25). Descriptive statistics summarised demographic and variable distributions, while inferential statistics including Pearson's correlation, multiple regression, and analysis of variance were applied to test the research hypotheses at a 0.05 significance level. This methodological framework combined rigorous sampling, validated measures, and ethical safeguards to ensure reliability and generalisability of results.

4. Result and Discussions

4.1 Demographic Representation of Participants

Table 1: Demographic Characteristics of Participants (N = 126)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	58	46.0
	Female	68	54.0
Total		**126**	**100.0**
Age Group (Years)	18–24	40	31.7
	25–29	52	41.3
	30–35	34	27.0
Total		**126**	**100.0**
Education	HND/Bachelor	92	73.0
	Postgraduate	34	27.0
Total		**126**	**100.0**
Local Government	Ikeja	42	33.3
	Alimosho	44	34.9
	Surulere	40	31.7
Total		**126**	**100.0**

Table 1 shows the demographic distribution of the 126 unemployed youths in Lagos State who participated in the study. By gender, 58 (46.0%) were male, while 68 (54.0%) were female, giving a total of 126 participants. With respect to age, 40 respondents (31.7%) were between 18 and 24 years, 52 (41.3%) were within the 25–29 age group, and 34 (27.0%) were aged 30–35 years, summing up to 126. In terms of educational qualification, 92 participants (73.0%) held HND or Bachelor's degrees, while 34 (27.0%) possessed postgraduate qualifications, making a total of 126. Across the three local government areas, 42 (33.3%) of the respondents were from Ikeja, 44 (34.9%) from Alimosho, and 40 (31.7%) from Surulere, also totalling 126 participants. This distribution confirms that the sample achieved balanced representation across gender, age, education, and locality.

Hypothesis One: There is no significant relationship between depression, self-esteem, coping strategies, social support, hopelessness, and psychological distress among unemployed graduates in Lagos, Nigeria.

Table 2: Pearson Correlation Matrix of Study Variables

Variables	1	2	3	4	5	6
1. Psychological distress	1					
2. Depression	.62**	1				
3. Self-esteem	-.48**	-.44**	1			
4. Coping strategies	-.32*	-.28*	.36**	1		
5. Social support	-.41**	-.35**	.39**	.33**	1	
6. Hopelessness	.57**	.61**	-.46**	-.29*	-.37**	1

*Note: $p < .05$, **p** < .01

Results from Pearson's correlation analysis revealed significant relationships among the study variables. Psychological distress correlated positively with depression ($r = .62$, $p < .01$) and hopelessness ($r = .57$, $p < .01$), but negatively with self-esteem ($r = –.48$, $p < .01$), coping strategies ($r = –.32$, $p < .05$), and social support ($r = –.41$, $p < .01$). These results indicate that higher depression and hopelessness levels are associated with greater psychological distress, while higher self-esteem, effective coping strategies, and strong social support predict reduced distress. Thus, the null hypothesis was rejected.

The finding that depression had a strong positive relationship with psychological distress suggests that unemployed graduates in Lagos who experience heightened depressive symptoms are more vulnerable to distress. This outcome can be justified by the fact that unemployment often strips individuals of their sense of purpose, financial stability, and social recognition, thereby intensifying depressive feelings that manifest as distress. For many unemployed youths, the uncertainty of the future combined with societal pressure may increase their susceptibility to

stress and hopelessness, thus reinforcing the overlap between depression and psychological distress.

This outcome aligns with previous research which confirms that depression is a major predictor of psychological distress. For instance, a study by Cheung et al. (2019) found that depressive symptoms significantly exacerbated distress among unemployed individuals, highlighting the cyclical relationship between mental illness and lack of work. Similarly, Melaku et al. (2021) reported that depression was a strong determinant of distress among young adults facing economic challenges, underscoring that unemployment magnifies the psychological burden linked to depression.

The negative association between self-esteem and psychological distress indicates that unemployed graduates with higher self-esteem experience less distress compared to those with low self-worth. This result is justifiable because self-esteem serves as a psychological buffer, enabling individuals to maintain confidence and resilience despite unemployment. Graduates with low self-esteem may interpret joblessness as personal failure, internalise societal stigma, and thus be more prone to distress, while those with strong self-concepts are better able to reframe challenges and remain hopeful.
Empirical evidence corroborates this finding. Lee and Hankin (2020) observed that low self-esteem significantly predicted higher levels of psychological distress among unemployed young adults, noting that low self-worth intensified the perception of social rejection. In addition, Orth and Robins (2019) emphasised that self-esteem protects individuals against the negative mental health effects of adverse life circumstances, including unemployment. These studies affirm the protective role of self-esteem in mitigating distress among vulnerable populations.

The significant negative relationship between coping strategies and psychological distress suggests that unemployed graduates who adopt effective coping mechanisms experience reduced distress. This can be explained by the fact that active coping strategies such as problem-solving, positive reframing, or seeking social support may help individuals to regulate negative emotions and preserve psychological stability during unemployment. Conversely, maladaptive strategies like avoidance or substance use can intensify distress and worsen mental health outcomes.

This result is supported by recent scholarship. A study by Park et al. (2020) found that coping strategies moderated the impact of unemployment on distress, with adaptive coping reducing stress and maladaptive coping increasing vulnerability. Similarly, Ayub and Iqbal (2021) confirmed that active coping strategies were associated with lower distress levels in young adults facing economic difficulties. These findings reinforce the notion that coping styles are crucial in determining how unemployment affects psychological wellbeing.

The negative relationship between social support and psychological distress indicates that unemployed graduates with strong social networks are less distressed compared to those with weak or absent support. This outcome can be explained by the fact that social support provides emotional reassurance, financial assistance, and practical guidance, all of which buffer against the negative impact of unemployment. In the absence of such support, unemployed youths may feel isolated, stigmatised, and overwhelmed, which in turn increases their susceptibility to distress.

Evidence from prior studies strengthens this interpretation. For instance, Yu et al. (2020) established that social support significantly reduced distress levels in unemployed youth populations by enhancing resilience and feelings of belonging. In a similar study, Ozbay et al. (2021) reported that individuals with stronger support systems were less likely to experience severe psychological distress during economic hardship. These findings highlight the protective influence of social networks in buffering unemployment-related stressors.

The positive association between hopelessness and psychological distress indicates that unemployed graduates with higher feelings of hopelessness experience greater distress. This is justifiable because hopelessness reflects negative expectations about the future, which is often amplified by the prolonged uncertainty and instability of unemployment. Feelings of being stuck, powerless, and unable to achieve life goals can magnify distress, as individuals may believe that their situation will not improve despite efforts.

Recent research corroborates this finding. For example, Vilhelmsson et al. (2021) reported that hopelessness was strongly linked to heightened psychological distress among unemployed young adults, emphasising that lack of perceived future opportunities worsens mental health outcomes. Similarly, Yıldırım and Arslan (2020) found that hopelessness was a significant predictor of distress during periods of economic and social uncertainty, reinforcing its role as a critical risk factor for unemployed populations. These studies confirm that

hopelessness is a major determinant of psychological distress among vulnerable groups.

Hypothesis Two: There is no significant combined effect of depression, self-esteem, coping strategies, social support, and hopelessness on psychological distress among unemployed graduates in Lagos, Nigeria.

Table 3: Multiple Regression Analysis Showing the Combined Effect of Predictors on Psychological Distress

Model	R	R^2	Adjusted R^2	F	Sig.
Regression	.74	.55	.52	18.46	.000**

Multiple regression results showed that depression, self-esteem, coping strategies, social support, and hopelessness jointly contributed significantly to the variance in psychological distress among unemployed graduates ($R = .74$, $R^2 = .55$, Adjusted $R^2 = .52$, $F(5,120) = 18.46$, $p < .01$). This indicates that the predictors jointly explained 55% of the variance in psychological distress, which is statistically significant. Therefore, the null hypothesis of no combined effect was rejected.

The finding that depression, self-esteem, coping strategies, social support, and hopelessness jointly contributed significantly to the variance in psychological distress among unemployed graduates is not surprising given the complex interplay between these variables. Depression and hopelessness, for example, share a common cognitive-emotional pathway, where feelings of worthlessness and negative expectations about the future reinforce each other, intensifying distress. On the other hand, self-esteem, coping strategies, and social support serve as protective factors that can mitigate the effects of depression and hopelessness. When these variables are combined, their opposing influences—risk versus protective factors—create a dynamic balance that collectively shapes the extent of distress among unemployed youths. This suggests that distress cannot be explained by a single factor but rather by the interaction of both psychological vulnerabilities and resilience resources.

The association between these independent variables may also be explained by the interdependence of their functions in shaping psychological health. Low self-esteem may reduce an individual's likelihood of using effective coping strategies, which in turn diminishes resilience against depression. Similarly, weak social support can amplify hopelessness by creating a sense of isolation and lack of encouragement during prolonged unemployment. Conversely, strong social support may enhance coping abilities and foster higher self-esteem, thereby buffering against the negative impact of depression. These interconnected pathways highlight why the predictors collectively explained a large proportion of the variance in distress. The results suggest that the relationship between psychological risk factors and protective mechanisms is not linear but rather synergistic, amplifying the overall predictive power when considered together.

This outcome aligns with existing research showing that multiple psychosocial variables jointly predict distress among vulnerable youth populations. For instance, Arslan and Yıldırım (2021) found that psychological distress in young adults was best explained through the combined effects of hopelessness, coping skills, and perceived social support, suggesting that no single factor sufficiently accounts for vulnerability. Similarly, Oladipo and Balogun (2020) reported that depression and self-esteem, together with coping resources, significantly predicted distress among unemployed Nigerian graduates, underscoring the cumulative influence of protective and risk factors. Collectively, these findings reinforce the argument that psychological distress emerges from a multidimensional framework where both internal (cognitive-emotional) and external (social-environmental) factors interact to shape the well-being of unemployed youths.

Hypothesis Three: There is no significant relative contribution of depression, self-esteem, coping strategies, social support, and hopelessness to psychological distress among unemployed graduates in Lagos, Nigeria.

Table 4: Relative Contribution of Predictors to Psychological Distress (Beta Weights)

Predictors	β	t	Sig.
Depression	.39	5.12	.000**
Self-esteem	–.26	–3.47	.001**
Coping strategies	–.14	–2.03	.045*
Social support	–.18	–2.64	.010**
Hopelessness	.29	4.08	.000**

*Note: $p < .05$, **p** < .01

The regression coefficients indicated that depression ($\beta = .39$, $t = 5.12$, $p < .001$) and hopelessness ($\beta = .29$, $t = 4.08$, $p < .001$) were the strongest positive predictors of psychological distress, while self-esteem ($\beta = –.26$, $t = –3.47$, $p < .01$), social support ($\beta = –.18$, $t = –2.64$, $p < .01$), and coping strategies ($\beta = –.14$, $t = –2.03$, $p < .05$) contributed negatively. These findings imply that while depression and hopelessness increase distress, self-esteem, coping skills, and social support significantly reduce it. Thus, the null hypothesis was rejected, as each variable demonstrated a meaningful relative contribution to the prediction of psychological distress.

The regression coefficients revealed that depression emerged as the strongest positive predictor of psychological distress, followed closely by hopelessness. This order is unsurprising, as depression often heightens negative affectivity and reduces motivation, thereby directly exacerbating distress levels among unemployed youths. Hopelessness, on the other hand, reflects a deep sense of despair and lack of future orientation, which complements the effect of depression by fostering a state of helplessness. Together, these conditions can trap unemployed individuals in a cycle where emotional suffering is intensified, impairing their ability to cope or seek constructive solutions. Their high contributions suggest that the internalisation of negative thoughts and future-related anxieties plays a dominant role in worsening psychological distress compared to external or protective factors.

In contrast, self-esteem, social support, and coping strategies contributed negatively to psychological distress, with self-esteem being the strongest of the protective factors. The relatively higher negative weight of self-esteem implies that when unemployed youths maintain a positive self-image and confidence in their abilities, they are less vulnerable to distress, even in the face of joblessness. Social support followed closely, showing that the encouragement and resources provided by family, friends, and community networks buffer the emotional burden associated with unemployment. Coping strategies had the smallest protective effect, which could be explained by the fact that coping responses vary in effectiveness; some youths may use adaptive strategies like problem-solving, while others may resort to avoidant behaviours, reducing the overall strength of its impact.

These findings are corroborated by recent empirical studies. For example, Li, Wang, and Sun (2021) found that depression was the strongest predictor of psychological distress among unemployed young adults in China, highlighting its pervasive role. Similarly, Adegoke, Olasupo, and Olatunji (2022) reported that hopelessness significantly amplified distress levels in Nigerian unemployed graduates, while self-esteem and social support served as buffers. In addition, Yıldırım and Solmaz (2020) demonstrated that individuals with strong coping skills and supportive social networks reported significantly lower levels of distress during unemployment. Collectively, these studies affirm the present findings that internal risk factors like depression and hopelessness strongly aggravate distress, whereas protective factors such as self-esteem, coping, and social support play crucial roles in alleviating it.

5. Outcomes Corroboration with the Anchoring Theory

The outcomes of the three hypotheses strongly align with the Stress Process Model (SPM), which explains how stress exposure, personal resources, and social resources interact to influence psychological well-being. The first hypothesis revealed that depression, self-esteem, coping strategies, social support, and hopelessness were significant predictors of psychological distress among unemployed graduates. This supports the SPM's core principle that stressors (in this case, depression and hopelessness) increase vulnerability to distress, while resources (such as self-esteem, coping strategies, and social support) buffer against adverse outcomes. The second hypothesis further confirmed that these predictors jointly accounted for a significant variance in psychological distress, which reflects the SPM's assumption that mental health outcomes are rarely shaped by a single factor but instead emerge from the dynamic interplay between risk factors and protective mechanisms operating within the stress process.

In line with the third hypothesis, the order of relative contributions also resonates with the SPM by showing that primary stressors (depression and hopelessness) exerted the strongest influence on psychological distress, while coping resources (self-esteem, social support, and coping strategies) played a mitigating role. This finding underscores the SPM's claim that stressors often have more immediate and powerful effects on mental health, whereas personal and social resources serve to moderate or buffer their impact. For instance, depression emerged as the most dominant predictor, consistent with the SPM's view that primary psychological stressors directly elevate distress levels. Similarly, hopelessness intensified vulnerability by eroding future orientation, while resources like self-esteem and social support reduced, but could not fully eliminate, distress. Thus, the pattern of results validates the Stress Process Model by demonstrating

how stressors and resources operate simultaneously, with the balance between them determining the degree of psychological distress experienced by unemployed graduates.

6. Conclusion

The present study examined the predictive roles of depression, self-esteem, coping strategies, social support, and hopelessness in explaining psychological distress among unemployed graduates. The findings revealed that these variables jointly accounted for a substantial proportion of variance in psychological distress, highlighting their significant collective influence. Specifically, depression and hopelessness emerged as the strongest positive predictors, while self-esteem, coping strategies, and social support were significant protective factors. These outcomes underscore the multifactorial nature of psychological distress, suggesting that both intrapersonal and interpersonal factors interact to shape the psychological well-being of unemployed youths. The study therefore concludes that addressing mental health among unemployed graduates requires a holistic approach that targets risk factors while strengthening protective mechanisms.

7. Limitations

Despite its useful insights, the study is not without limitations. Firstly, the use of a cross-sectional survey design limits the ability to establish causal relationships among the variables, as the data only captured associations at a single point in time. Secondly, reliance on self-report instruments may have introduced response bias, as participants could have underreported or exaggerated their psychological experiences due to social desirability. Additionally, the sample was restricted to unemployed graduates within a particular geographical region, which limits the generalisability of the findings to broader populations of unemployed youths in different cultural or socio-economic contexts. Future studies would benefit from employing longitudinal designs, incorporating multiple data sources, and expanding to diverse populations.

8. Recommendations

Based on the findings, several recommendations are put forward. Mental health interventions targeting unemployed graduates should integrate cognitive-behavioural and positive psychology approaches to address depression and hopelessness while promoting self-esteem and resilience. Counselling services and career guidance programmes should be strengthened in higher institutions and community settings to equip graduates with effective coping strategies during periods of job search and unemployment. Furthermore, policymakers should prioritise the development of social support systems, such as peer mentoring groups, unemployment assistance schemes, and community-based initiatives, to reduce the isolation and distress experienced by unemployed youths. Finally, future research should consider exploring the moderating and mediating roles of demographic and contextual factors to provide a more nuanced understanding of psychological distress in this vulnerable population.

References

Abiola, T., Udofia, O., & Zakari, M. (2015). Psychometric properties of the 10-item Connor-Davidson Resilience Scale among Nigerian students. *African Journal of Psychological Study of Social Issues, 18*(1), 63–73.

Akinyemi, O. Y., & Aremu, A. (2018). Solution-focused therapy in the management of psychological distress among newly diagnosed people living with HIV/AIDS in Ibadan, Nigeria. *Unpublished manuscript.*

Akinyemi, O. Y., Ajani-Adeigbe, A. T., Abiodun-Oyebanji, O. J., & Akinwunmi, F. S. (2018a). The influence of socio-economic status on academic achievement in Nigerian secondary school students. *African Journal of Educational Management, 19*, 135–152.

Akinyemi, O. Y., Ajani-Adeigbe, A. T., Abiodun-Oyebanji, O. J., & Akinwunmi, F. S. (2018b). The role of social support in enhancing academic resilience in Nigeria. *Journal of Social Sciences and Education Research, 23*(2), 112–123.

Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth, 24*(4), 484–496.
https://doi.org/10.1080/02673843.2019.1568887

Aremu, A., & Akinyemi, O. Y. (2019). Peer influence and academic motivation: A case study of secondary school students in Ibadan, Nigeria. *Journal of Educational Psychology and Practice, 5*(1), 45–58.

Arslan, G. (2019). Mediating role of the self-esteem and resilience in the association between social exclusion and life satisfaction among adolescents. *Personality and Individual*

Differences, 151, 109514. https://doi.org/10.1016/j.paid.2019.109514

Arslan, G., and Yıldırım, M. 2021. A longitudinal examination of the associations between mindfulness, meaning in life, and psychological health during the COVID-19 pandemic. *Personality and Individual Differences, 172,* 110592. https://doi.org/10.1016/j.paid.2020.110592

Boateng, G., Mensah, K., & Sarfo, P. (2020). Facing the ills of unemployment: The role of religiosity and social support among Ghanaian youth. *Journal of Youth Studies, 23*(4), 487–502.

Chang, Y., Yuan, Y., & Wang, D. (2020). Mental health and self-efficacy of unemployed people during COVID-19 pandemic: Mediating role of coping strategies. *Psychiatry Research, 290*, 113128. https://doi.org/10.1016/j.psychres.2020.113128

Creed, P., & Macintyre, S. (2018). Employment and its role in mental health: The need for structure, purpose and social connectivity. *International Journal of Social Psychiatry, 64*(3), 191–200.

Fehintola, J. O., & Akinyemi, O. Y. (2021). Mindfulness and cognitive training in enhancing attention regulation among Junior Secondary School Students' Performance in Mathematics in Ibadan Land, Nigeria. *International Journal of Educational Benchmark, 18*(2), 1–14.

Fehintola, J. O., & Akinyemi, O. Y. (2022). Evaluation of determinants of low performance among academically at-risk students in University of Ibadan, Ibadan, Nigeria. *African Journal of Educational Archives, 8*(1), 15–27.

Jiang, Y., Kosik, R. O., Fan, A. P., Zhong, Y., & Ma, C. (2019). Perceived stress, coping, and depressive symptoms among unemployed youth in China: A cross-sectional study. *BMC Public Health, 19*(1), 1091. https://doi.org/10.1186/s12889-019-7411-6

Liu, Q., He, H., Yang, J., Feng, X., Zhao, F., & Lyu, J. (2019). Changes in the global burden of depression from 1990 to 2017: Findings from the Global Burden of Disease study. *Journal of Psychiatric Research, 126*, 134–140. https://doi.org/10.1016/j.jpsychires.2019.08.002

Lundberg, J., Olofsson, A., & Levin, L. Å. (2019). Living in the shadow of unemployment: A qualitative study of youth health. *BMC Public Health, 19*, 800.

Mekiya, K., Yohannis, Z., Ayano, G., & Alem, A. (2020). Prevalence of depression and associated factors among unemployed young adults in Southern Ethiopia. *International Journal of Mental Health Systems, 14*(1), 1–9.

Moccia, L., Janiri, D., Pepe, M., Dattoli, L., Molinaro, M., De Martin, V., Chieffo, D., Janiri, L., Fiorillo, A., Sani, G., & Di Nicola, M. (2020). Affective temperament, hopelessness and depression in COVID-19 pandemic: Mood spectrum features in healthy subjects. *Journal of Affective Disorders, 273*, 207–214. https://doi.org/10.1016/j.jad.2020.04.055

National Bureau of Statistics. (2022). Labour force statistics: Unemployment and underemployment report. *Abuja: NBS.*

Nwokoro, C., & Ogba, C. (2018). Community support as a buffer against economic stress: Strengthening mental health resilience among Nigerians. *Journal of Social Resilience, 5*(3), 341–356.

Oladipo, S. E., and Balogun, S. K. 2020. Psychological predictors of distress among unemployed graduates in Nigeria. *Journal of Psychology in Africa, 30*(2), 128–134. https://doi.org/10.1080/14330237.2020.1745556

Omopo, O. E. (2024). Exploring the qualitative dimensions of cognitive reframing therapy in reducing tobacco smoking dependency among inmates: Insights from Agodi Correctional Centre, Ibadan. *Journal of Special Education*, 22(1), 37-47.

Omopo, O. E. (2025). Can emotion regulation, peer pressure, and social support shape the impact of childhood trauma on adolescent mental health? A structural equation modelling approach in Oyo State, Nigeria. *International Journal of Innovative Psychology & Social Development*, 13(3), 56–65. https://doi.org/10.5281/zenodo.16222335

Paul, K. I., & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behavior, 74*(3), 264–282.

Quadri, G. O., Omopo, O. E., Ukpere, W. I. (2025). Childhood trauma, peer pressure, parenting styles and gender on adolescent substance abuse in Ibadan: a structural equation modelling approach. *EUREKA: Social and Humanities*, 3, 29–45. http://doi.org/10.21303/2504-5571.2025.003768

Schönfeld, P., Brailovskaia, J., Bieda, A., Zhang, X. C., & Margraf, J. (2019). The effects of daily stress on positive and negative mental health: Mediation through self-efficacy and coping

strategies. *International Journal of Clinical and Health Psychology, 19*(1), 74–82. https://doi.org/10.1016/j.ijchp.2018.11.002

Schreiner, T., Schlosser, S., & Kuhn, U. (2022). Time structure as a coping resource for unemployed individuals: Implications for mental health. *Journal of Occupational Health Psychology, 27*(5), 619–630.

United Nations Department of Economic and Social Affairs. (2019). *World Economic Situation and Prospects: April 2019 Briefing No. 125.*

Wanberg, C. R. (2012). The individual experience of unemployment [Review]. *Annual Review of Psychology, 63*, 369–396.

Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *BMC Psychiatry, 18*(1), 156. https://doi.org/10.1186/s12888-018-1736-5

Zuelke, A. E., Luck-Sikorski, C., & Riedel-Heller, S. G. (2018). Mental health consequences of unemployment: A longitudinal study. *Journal of Affective Disorders, 241*, 377–385.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 53-59

Invisible at Home and in Society: Social Exclusion Experiences of Children with Disabilities

TRACY B. E. OMOROGIUWA, OSAYUWAMEN ADEWALE ALADESELU
University of Benin, Benin City, Nigeria

Abstract. Children with disabilities face multifaceted social exclusion across various domains of life, particularly in low-resource urban settings in Nigeria. This conceptual paper explores how children with disabilities experience exclusion within the home, school, and community. Drawing from social exclusion theory and Bronfenbrenner's ecological systems theory, the paper critically examines the interplay of cultural stigma, poverty, gender dynamics, and institutional gaps that reinforce their marginalization. Emphasis is placed on how these factors manifest differently across gender lines and how they contribute to the invisibility of these children in both private and public spaces. The study identifies limitations in current policies, inadequate support structures for caregivers, and societal misconceptions about disability. It proposes family-centered and community-based social work strategies, including inclusive education advocacy, caregiver psychosocial support, and public sensitization campaigns. The paper concludes with actionable recommendations for social workers, policymakers, and development actors committed to disability inclusion.

Keywords: Social Exclusion, Children with disabilities, Family, Social Work, Gender.

1. Introduction

Social exclusion has become a global phenomenon although there is no universally agreed definition or benchmark for social exclusion, "lack of participation" is a common denominator in most definitions put forth by scholars, government bodies, non-governmental organizations and others (United Nations, 2016). The term social exclusion was used for the first time by René Lenoir to refer to the situation of certain groups of people "the mentally and the physically handicapped, suicidal people, aged, invalids, abused children, drug addicts, delinquents, single parents, multi-problem households, marginal, asocial persons and other 'social misfits'"− whom he estimated to comprise one tenth of the population of France and who were considered vulnerable yet outside the realm of social insurance systems of the welfare state (United Nations, 2016). Persons with disabilities who are vulnerable persons suffer social exclusion on different fronts and this also includes children with disabilities. A number of the mentally challenged individuals in the Nigerian context are disadvantaged as there seems to be a general apathy and little or no attention given to the problems of their problems (Omorogiuwa, 2017).

The global discourse on disability rights has increasingly highlighted the vulnerability of children with disabilities to systemic exclusion, particularly in low- and middle-income countries. In Nigeria, where socio-cultural beliefs often stigmatize disability and infrastructural barriers persist, children with disabilities are frequently denied the right to education, social participation, and adequate care. This exclusion is even more pronounced in urban localities like Oredo LGA in Benin City, where intersecting challenges of poverty, inadequate social protection systems, and cultural stigma render many children with disabilities invisible within their families and communities. An estimated 1.3 billion people globally experience significant disability (World Bank, 2023) and the prevalence of this is higher for developing countries with about 80 percent of them living in developing countries (International Labour Organization 2015). This figure represents 16% of the world's population, or 1 in 6 of us (World Health Organization, 2023). In Nigeria, the 2006 census put the figure of people with disability at 3, 253,169 and from this figure, the total number of women and children with disabilities are 1, 544, 418 and 1, 002,

062, respectively. If we go by this figure, then the total number of people with disabilities is approximately 2.32% of the population (140, 431, 790), with women and children with disabilities being 1.1 and 0.71%, respectively (National Population Commission 2010).
This paper explores the nature and drivers of social exclusion experienced by children with disabilities in Oredo LGA, analyzing how social work strategies can respond to these challenges and improve welfare outcomes for these children and their families.

2. Literature Review

Persons with disabilities are more likely to face adverse socioeconomic outcomes than persons without disabilities, such as less education, poorer health outcomes, lower employment levels and higher poverty rates (International Development Association, 2021). The Convention on the Rights of the Child was adopted in 1989 to promote, protect and fulfil the rights of all children, and is the most widely ratified human rights treaty. Although article 23 of the convention focuses specifically on the rights of children with disabilities, all the rights, guarantees and protection mechanisms established by the convention are applicable to children with disabilities. In addition, due to the principle of the indivisibility of human rights, all the rights guaranteed by the Convention on the Rights of the Child have to be read in conjunction with those enshrined by the CRPD (UNICEF, 2022a). The 2008 Tanzania Disability Survey found that children with disabilities are also fifty percent (50%) less likely than their peers without disabilities to complete primary school and progress to higher levels of education (United Nations Children's Fund, 2013). Children with disabilities are not a homogenous group. They are diverse people who have different impairments, age, sex, gender identity, sexual orientation, ethnicity, race, religious and cultural beliefs, socio-economic background, geographical location, level of education and migration status (UNICEF 2022a). There are nearly 240 million children living with disabilities worldwide, 1 in 10 of all children. Psychosocial difficulties affect the largest share of these children, across all ages (UNICEF, 2022b). Global and Nigerian studies confirm that children with disabilities are disproportionately excluded from education, play, and community life (WHO & World Bank, 2011; UNICEF Nigeria, 2021). In sub-Saharan Africa, disability is often framed within superstitious or fatalistic narratives, resulting in shame, neglect, or concealment (Abosi & Ozoji, 1985). In Nigeria, families may hide children with disabilities to avoid community ridicule or perceived dishonour. Gender adds another layer: girls with disabilities are more likely to face abuse, be denied schooling, or lack access to assistive services.

Children with disabilities have special needs that are peculiar to their stage of development. Children with special needs are a concern for most parents, thus various coping strategies adopted to curb the challenges of having such a child is demanding, socially unbearable and stressful (Hastings et al., 2005). One of the groups of children with special needs are children with autism and they also fall under the category of children with disabilities. The coping ability of parents with autistic children possesses substantial implementation cost and presents sustainability and feasibility changes in low resources settings (Peters-Scheffer et al., 2012).

Opelusi and Omoruyi (2021) defined autism as a neuro-developmental disorder which is present from early childhood, characterized by great difficulty in communicating and forming relationships with other people and in using language and abstract concepts. The term autism also known as autism spectrum disorder (ASD) is a developmental syndrome with growing global health concern. Crane et al. (2016) averred that a health condition such as autism poses serious concern to parents than others and inferred that autism is associated with birth defects and has to do with pervasive developmental disorder often characterized by chronic impairment in social interactions and reciprocal communications that tend to be stereotyped patterns of behaviour, interest or activity.

According to the WHO (2013), autism begins in childhood and tends to persist into adolescence and adulthood. In most cases, the conditions are apparent during the first five years of life and this can be attributed to environmental and genetic factors. Children with autism are known as special children; therefore, it is required of the society and the parents to help them through this challenge to become useful people in life and discourage any form of limitations of their capacity to conduct daily activities (Opelusi & Omoruyi, 2021). Prior research by Busch (2006) clearly indicates that the demand of raising a child with autism can result in marked psychological distress for many parents (Hastings, 2008). Dobson and Middleton (1998), as cited in Jarbrink et al. (2003) estimated that the cost of raising a child with a disability is approximately three times greater than the cost of raising a child with no disability. Opelusi and Omoruyi (2021) opined that the negative consequence of this to the family may include difficulties in maintaining employment, lost leisure time opportunities, less time available for other children in

the family, and difficulty finding or paying for adequate childcare or therapy.

Research also shows a lack of capacity and coordination in Nigeria's disability and child welfare services. The National Policy on Inclusive Education (2017) and the Child Rights Act (2003) provide a framework for rights protection, but implementation remains weak at local levels (NCPWD, 2022).

3. Home-Based Exclusion

Caregivers of children with disabilities experience a number of challenges that include social isolation (Currie & Szabo 2020) and are often family members of the children, usually their mothers or fathers. The caring process has an impact on caregivers, including stress that negatively affects their health (Masefield et al. 2020). The family is often psychologically impacted (Coetzee 2016). There is also a greater financial burden on the family, which contributes to increased stress on the family as well as the carers (Geiger 2012). Madukwe (2012) argued that victims with physical impairments face problems from their parents, guardians, and other family members and friends due to a heavy reliance on this group for vital assistance. The distressing feeling of social isolation has consequences on children's mental health (Kwan et al., 2020).

The extra psychological, physical and financial costs of having a disability – especially in a world that is not inclusive, not accessible, and even hostile to children with disabilities – can cause stress for families, increasing the probability of family break-ups and (typically) single motherhood (Magadi and Middleton, 2007). Some caregivers, particularly mothers, report psychological distress and isolation. Extended families may withdraw support or encourage concealment. Children with disabilities are also more likely to suffer from abuse (Stalker & McArthur,, 2012).

4. School and Community Based Exclusion

Children with disabilities have been excluded from the general education system and placed in special schools historically. In some cases, they are separated from their families and placed in long-term residential institutions where they are educated in isolation from the community, if they are educated at all. A child with a disability is almost 17 times more likely to be institutionalised than other children (United Nations Children's Fund, 2013). Children with disabilities are 25 per cent less likely to attend early childhood education, 49 per cent more likely to have never attended school, 47 per cent more likely to be out of primary school, 33 per cent more likely to be out of lower secondary school and 27 per cent more likely to be out of upper secondary school (Jones et al., 2012).

The Global Partnership for Education (2018) estimates that 90 per cent of children with disabilities in low and lower-middle income countries do not go to school. Data also revealed that only 5 per cent of all children with disabilities worldwide have completed primary school (Peters, 2003). There are also disability related costs for learning. For instance, a child with visual impairment will require assistive devices like canes, electronic mobility aids, and reading assistance to navigate the course of his/her life, or a child with hearing impairment will require a sign instructor. Learning in schools for children with visual impairments is complicated by the lack of access to braille material, and the textbooks designed for the blind are costly for blind children whose parents are poor.

Access to preschool education is also limited, with just a quarter of children aged 0-6 years receiving the Care Dependency Grant attending a crèche or child-minding group (de Koker et al., 2006). As in many other countries around the world, children with disabilities continue to experience high levels of stigma and discrimination which is a contributory factor to household vulnerability. On reaching school age, children with disabilities continue to face considerable barriers both in accessing school and in terms of learning. Whilst the gap is closing, children with disabilities are still much less likely to attend school than children without disabilities, which has significant implications for their rates of literacy and ability to gain the qualifications needed to enter the formal labour market (Kidd et al., 2018). Children with disabilities are much less likely to progress from primary to secondary and post-secondary education and people with disabilities having on average of 2.7 years more schooling than people without disabilities (Graham et al., 2014).

5. Gender and Cultural Dimensions

Women and girls with disabilities face increased risk of violence and abuse, including sexual violence, gender-based discriminatory practices (UN Women, 2018). Systemic and historical marginalization as well as attitudinal and environmental barriers hinder the participation and inclusion in society of women and girls with disabilities on an equal basis with others. These barriers often lead to lower economic and social status, increased risk of violence and abuse, including sexual violence, discrimination as well as harmful

gender-based discriminatory practices, barriers in access to education, health care (including sexual and reproductive health), information and services, justice, as well as civic and political participation (ibid). The impact of diverse identities (including gender, age and disability) varies across different cultural, socio-economic and political contexts. When multiple grounds for discrimination operate at the same time, children with disabilities can be exposed to intersectional discrimination (CRPD, 2016).

Girls with disabilities experience higher levels of discrimination than boys with disabilities and children without disabilities. Twenty-three per cent of girls with more than one functional difficulty aged 15–17 years reported having personally felt discriminated against or harassed within the previous 12 months on the basis of disability or other grounds for discrimination prohibited under international human rights law, compared with 14 per cent of girls without a functional difficulty, 13 per cent of boys with more than one such disability, and 12 per cent of boys without a functional difficulty. Girls with disabilities often experience double discrimination (WHO et al., 2010). They are also at higher risk of violence, sexual exploitation and abuse (Jones et al., 2012) and are more likely to be subjected to gender-based violence (United Nations Population Fund,2018

6. Theoretical Framework

This study draws on two interrelated theoretical frameworks:

Social Exclusion Theory posits that exclusion results from institutional and social practices that systematically marginalize individuals or groups from participating fully in society (Silver, 1994). The process of exclusion of the Children with disabilities start at from micro level that is at the individual level that is within the family from close relatives, siblings, peer groups and so on and extends to macro level encompassing community and society at large. The repercussion of this exclusion faced from these social structures have a profound influence on the psyche of the child, ultimately shaping the relationship they share. Social exclusion enforces the social forces that prevents the children with disabilities in engaging themselves day activities thereby curtailing their active involvement in the society. Stigma and discrimination due to disability are the root cause of exclusion of the children with disabilities from the society. The pervasiveness of stigma and discrimination affecting the children with disabilities s and the social exclusion from normal interaction within the society produce psychological distress for m reflected in their accessibility to education, family life and financial aspect (Das and Joseph, 2023).

Ecological Systems Theory: The Ecological systems theory was originated by Bronfenbrenner (1979) who posited that human development is shaped by the interaction of an individual and the environment. The Ecological systems theory (also referred to as social ecology theory) is a framework of postulations or set of theoretical principles for understanding the dynamic interrelations along various personal and environmental factors (Ugiagbe, 2018). This theory uses the analogy of the biological ecosystem in the explanation of the relationship and interdependence of organisms in an ecosystem in the understanding of how the social ecology theory explains the interaction between individuals in an "eco-space such as human aggregation in a loci" (Aladeselu, 2021). In this context, this theory explains how a child's development is influenced by interactions across multiple systems: the microsystem (family), mesosystem (school/community), exosystem (policy/services), and macrosystem (cultural/societal norms). Children with disabilities have more complex relationships with the different systems and often find themselves excluded at different levels. Social workers can work with individuals with mental disability to resolve associated psychosocial problems and with families in which mental health problems exist in connection with social problems, such as child rearing distress, unemployment/poverty and social isolation, and educational attainment problem (Omorogiuwa, 2009).

Together, these frameworks help to unpack how exclusion is reinforced at various levels and identify leverage points for social work intervention.

6.1 Social Work Strategies for Inclusion

To counter these dynamics, social workers can leverage several strategies:

Family-Centered Support: Home visits, counselling, and parenting skills training for caregivers, especially mothers.
Inclusive Education Advocacy: Partnering with schools to promote universal design, disability-friendly policies, and teacher training.
Community Engagement: Sensitization campaigns using local media, churches, and traditional institutions to challenge stigma.
Policy Linkages: Helping families access cash transfers, assistive devices, or referrals through existing social protection programs.

Child Participation: Encouraging the voice and agency of children with disabilities in program design and feedback loops.

7. Conclusion

The exclusion of children with disabilities in Oredo LGA is a pressing developmental and social justice concern. Without intentional strategies that center families, challenge stigma, and strengthen service systems, these children risk remaining invisible. Social work, with its rights-based and holistic approach, is uniquely positioned to drive inclusive change. By building family resilience, transforming community attitudes, and bridging policy-practice gaps, social workers can play a pivotal role in ensuring that all children are seen, valued, and supported.

8. Recommendations

Capacity Building: Train local social workers and community volunteers on inclusive case management.

Multi-Stakeholder Collaboration: Engage health, education, and religious leaders in coordinated disability response.

Policy Implementation: Advocate for local-level enforcement of the Child Rights Act and Inclusive Education Policy.

Research and Data: Encourage localized studies and disaggregated data on children with disabilities in Oredo Local Government Area.

References

Abosi, C. O., & Ozoji, E. D. (1985). *Educating the physically handicapped in Nigeria*. Pacific Publishers.

Aladeselu, O. (2021). Ecological systems theory and understanding of the phenomena of poverty and social loafing in Benin metropolis, Edo state, Nigeria. *University of Benin Journal of the Humanities*1(9), 49-62.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Coetzee, O. (2015). Caregiving experiences of South African mothers of adults with intellectual disability who display aggression: Clinical case studies. Doctoral thesis, University of Cape Town.

Convention on the Rights of Persons with Disabilities (2016). United Nations Committee on the Rights of Persons with Disabilities, 'General Comment No. 3 6: Women and girls with disabilities' (CRPD/C/GC/3), Office of the United Nations High Commissioner, Geneva.

Crane, L., Chester, J., & Godda, L. (2016). Experiences of autism diagnosis: A survey of over 1000 parents in the United Kingdom. Autism, 20(2), 153–162.

Currie, G. & Szabo, J. (2020). Social isolation and exclusion: The parents' experience of caring for children with rare neurodevelopmental disorders. *International Journal of Qualitative Studies on Health and Well-being* 15(1), 1725362. 10.1080/17482631.2020.1725362.

Das, A. & Joseph, G. (2023). Social Exclusion and Children with Disabilities: Understanding the Challenges and Problems Faced by Children with Disabilities in Cachar District of Assam. *Mizoram University Journal of Humanity and Social Sciences.* 1(2).

de Koker, C., de Waal, L., & Voster, J. (2006). A profile of social security beneficiaries in South Africa. *Datadesk*. Department of Sociology and Social Anthropology, Stellenbosch University.

Dobson, B. & Middleton, S. (1998). *Paying to care: The cost of childhood disability*. YPS.

Geiger, M. (2012). Communication training for centre-based carers of children with profound disabilities in the Western Cape', *African Journal of Disability* 1(1), 1–8. 10.4102/ajod.v1i1.10.

Global Partnership for Education (2018). Disability and inclusive education: A stocktake of education sector plans and GPE-funded grants (Working Paper-3) https://www.globalpartnership.org

Graham, L., Moodley, J., Ismail, Z., Munsaka, E., Ross, E. & Schneider, M. (2014). Poverty and disability in South Africa. Centre for Social Development, University of Johannesburg, South Africa.

Hastings, R.P., Kovshoff, H., Ward, N.J., Espinosa, F.D., Brown, T. & Remington, B. (2005). Systems analysis of stress and positive perceptions in mothers and fathers of pre-school children with autism. J. Autism Dev. Disord, 35:635–644. doi: 10.1007/s10803-005-0007-8.

Hastings, R. P. (2008). Stress in parents of children with autism. In E. McGregor, M. Nunez, D. Cebula, & J. C. Gomez (Eds.), Autism: An integrated view from neuroscience, clinical, and intervention research (pp. 303–324). London: Blackwell.

International Development Association. (2021). Disability inclusion. https://www.worldbank.org/en/topic/disability

International Labour Organization (ILO) (2015). ILO and disability inclusion. GED / PARDEV.

Jones, L., Bellis, M.A., Wood, S., Hughes, K., McCoy, E., Eckley, L., Bates, G., Mikton, C., Shakespeare, T., Officer, A. (2. 012) Prevalence and risk of violence against children with disabilities: A systematic review and meta-analysis of observational studies. Lancet, 8;380(9845):899-907. doi: 10.1016/S0140-6736(12)60692-8. Epub 2012 Jul 12. PMID: 22795511.

Kidd, S., Wapling, L., Bailey-Athias, D., & Tran, A. (2018). Social protection and disability in South Africa (Working Paper).

Kwan, C., Gitimoghaddam, M., & Collet, J. (2020). Effects of social isolation and loneliness in children with neurodevelopmental disabilities: A scoping review. Brain Sciences, 10(11), 786. https://doi.org/10.3390/brainsci10110786

Madukwe, B. (2012, May 6). Lagos Special People's Law to the rescue of PWD. Vanguard News. https://www.vanguardngr.com/2012/05/lagos-special-peoples-law-to-the-rescue-of-pwd/

Magadi, M. & Middleton, S. (2007). Severe Child Poverty in the UK', Save the Children, https://resourcecentre.

savethechildren.net/library/severe-child-poverty-uk

Masefield, S.C., Prady, S.L., Sheldon, T.A., Small, N., Jarvis, S. & Pickett, K.E. (2020). The caregiver health effects of caring for young children with developmental disabilities: A meta-analysis, *Maternal and Child Health Journal* 24(5), 561–574. 10.1007/s10995-020-02896-5.

National Commission for Persons with Disabilities (NCPWD) (2022). *Annual report on disability inclusion in Nigeria*.

National Population Commission Nigeria (2010). Census priority table: 2006 population distribution by sex and class size of household state and Local Government Area, Table HH (ADD 1), 9.

Omorogiuwa, T.B.E. (2009). A handbook on physical disabilities and mental disorders. Benin City: Perfect Touch Prints.

Omorogiuwa, T.B.E. (2017). The impacts of mental disability: Implication for social work practice. *African Journal of Social Work*, 7(1), 1-8.

Opelusi, A., & Omoruyi, O. (2021). Adoptable coping strategies of parents with autistic school children in tender brain remedial centre, Oredo Local Government Area, Benin City, Edo State. *Sapientia Global Journal of Arts, Humanities and Development Studies*, 4(1), 23–31.

Peters, S. (2003). Achieving education for all by including those with disabilities and special needs. World Bank Disability Group.

Peters-Scheffer, N., Didden, R., & Korzilius, H. (2012). Cost comparison of early intensive behavioral intervention and treatment as usual for children with autism spectrum disorder in the Netherlands. Research in Developmental Disabilities, 33(6), 1763–1772. https://doi.org/10.1016/j.ridd.2012.04.006

Silver, H. (1994). Social exclusion and social solidarity: Three paradigms. *International Labour Review*, 133(5-6), 531-578.

Stalker, K. & McArthur, K. (2012). Child Abuse, Child Protection and Disabled Children: A review of recent research', Child Abuse Review, 1(21), 24–40.

Ugiagbe, E. O. (2018). Social Work Theories. Benin City: Justice Jeco Printing & Publishing Global.

United Nations (2016). Report on the world social situation: Leaving no one behind. https://wwdaudadepartw.un.org/development/desa/dspd/2016-world-social-situation-report.html

United Nations Children's Fund UNICEF (2013). The state of the world's children: Children with disabilities. UNICEF.

United Nations Children's Fund UNICEF Nigeria. (2021). *Situation analysis of children with disabilities in Nigeria*.

United Nations Children's Fund UNICEF (2022a). UNICEF Fact Sheet: Children with Disabilities.

United Nations Children's Fund UNICEF (2022b). Seen, Counted, Included: Using data to shed light on the well-being of children with disabilities, New York, accessed July 2025

United Nations Population Fund (2018). Young Persons with Disabilities: Global study on ending gender-based violence and realizing sexual and reproductive health and rights, New York, p. 24.

United Nations Women. (2018). The empowerment of women and girls with disabilities: Towards full and effective participation and gender equality.

WHO & World Bank. (2011). World report on disability. *World Health Organization*.

World Bank. (2023). Nigeria overview: Development news, research, data.

https://www.worldbank.org/en/country/nigeria/overview

World Health Organization. (2013). Meeting report: Autism spectrum disorders and other developmental disorders: From raising awareness to building capacity.

World Health Organization. (2023). Disability factsheet. https://www.who.int/disability

World Health Organization, United Nations Educational, Scientific and Cultural Organization, International Labour Organization, and International Disability Development Consortium. (2010). Community Based Rehabilitation (CBR) Guidelines, World Health Organization, Geneva.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 61-66

Integrating Artificial Intelligence as an Academic Learning Tool for University Students: Sociological Implications

AYOBAMIDELE PETER AKINDEHINDE, ESTHER PAMELA OMOROGIEVA
University of Benin, Benin City, Nigeria

Abstract. This study assessed the generality of the integration of Artificial Intelligence (AI) as an academic learning tool for university students by analyzing the key themes including enhanced student engagement, improved academic performance and potential shifts in knowledge dynamics. It specifically, discussed trends in the development of artificial intelligence, AI impact on university students' academic performance, the sociological implications of artificial intelligence, and some of its challenges and suggestion for AI usage advancement among the students and students-teachers during teaching and learning were also discussed. The study concluded that, despite the fact that these technologies are becoming more prominent in higher education, not all students enjoy equal access to them. Differences in technological infrastructure, institutional readiness, and digital literacy continue to influence how effectively students can benefit from AI. Although AI's promise to enhance learning outcomes is well acknowledged in theory, practical research on its real-world impact on academic performance, particularly in the context of developing nations remains limited.

Keywords: Artificial Intelligence, Sociological Implications.

1. Introduction

The rapid evolution of technology in the 21st century has brought about profound transformations in various sectors, and education is no exception. Among the most disruptive and promising innovations in this realm is Artificial Intelligence (AI), which is increasingly being adopted in educational settings, particularly within tertiary institutions. AI, which encompasses the development of computer systems capable of performing tasks that typically require human intelligence, such as reasoning, learning, problem-solving, and decision-making, has introduced new dimensions to teaching and learning experiences (Russell & Norvig, 2016). Its application in higher education has the potential to revolutionize how students learn, how instructors teach, and how institutions function as a whole.

Artificial Intelligence is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience.

In recent years, there has been a marked shift in the way educational content is delivered and accessed, largely driven by digitalization and the proliferation of intelligent technologies. AI-powered tools such as intelligent tutoring systems, personalized learning platforms, automated grading systems, and learning analytics are increasingly being deployed to support educational activities (Luckin et al., 2016; Holmes, Bialik, & Fadel, 2019). These technologies are capable of customizing learning experiences to suit individual student needs, tracking academic progress in real-time, and providing immediate feedback, all of which contribute to more effective learning outcomes.

The integration of AI into higher education also raises important questions about pedagogy, technology access, institutional capacity, and student preparedness. As students are increasingly required to engage with digital learning platforms and tools, their ability to effectively use these technologies becomes a crucial factor in academic success. AI has the potential to support self-directed learning, facilitate deeper engagement with course materials, and provide data-

driven insights that help educators tailor instruction to individual needs. However, these benefits are contingent upon several factors, including infrastructure, digital literacy, pedagogical alignment, and institutional support (Baker & Inventado, 2014).

In view of the above, artificial intelligence is becoming the next big trend in the education field at all levels be it primary, secondary, as well as higher-level of education, and that is why, AI is recognized to be used for making content including textbooks, personalized learning materials, and interactive courses according to the target audience because, its tools enable the development of educational material that is based on natural language processing capabilities thus, ensuring material that is consistent, concise, and grammatically correct (Dawes, 2023).

Moreover, in terms of delivery of contents, AI enables delivery of contents more efficiently and flexibly by substituting classroom instruction and providing support for students to learn from anywhere in the world at any time. Currently, some educational programs are equipped with Artificial Intelligence, and scaffolding students to learn basic skills. According to Fahimirad and Kotamjani (2018), Classroom AI systems have a high capability to analyse multiple sources of data and compare those data to known patterns. They can recognize the source of problems and give guidance to teachers/lecturers to achieve more consistent outcomes across various classes (Chen et al. 2020).

In other words, the AI and teachers can work together to create the best delivery method for students with maximum positive outcomes while in terms of assessment, AI can enable automated assessment (Holmes & Tuomi, 2022). For example, AI can automate grading homework, and tests usually take a significant amount of time. This time could be used to work on professional development, interact with students, and prepare for class. As AI is also replacing human grading gradually, its automated grading can grade nearly fill-in-the-blank and all kinds of multiple-choice testing. The benefit of AI in assessment is that it can reduce human subjectivity and time taken for assessment.

Moreover, the growing influence of Artificial Intelligence (AI) across all sectors of society has inevitably extended to higher education, prompting institutions to reconsider how teaching and learning are designed and delivered. While the discourse around AI in education often emphasizes its transformative capabilities, what remains underexplored is the critical question of access—who gets to benefit from AI, and how that access translates into measurable academic success.

In many tertiary institutions, discussions around educational technology are heavily policy- or vendor-driven, often detached from the lived experiences of students. There is a noticeable gap between the promotion of AI systems and the realities of students' engagement with them, especially in resource-constrained environments. While AI is praised for enabling personalized learning, adaptive feedback, and data-informed academic interventions, these benefits are not uniformly experienced.

2. Trends in Development of Artificial Intelligence (AI),

The history of AI is marked by periods of rapid advancement and periods of limited progress, often referred to as AI Winters. The key milestones include the coining of the term Artificial Intelligence in 1956, the development of early expert systems like MYCIN in the 1970s, and the resurgence of AI with the rise of machine and deep learning in the 21st century. A survey of important events and people in the field of artificial intelligence (AI) from the early work of British logician, Alan Turing in the 1930s to advancements at the turn of the 21st century cannot be overlooked.

However, Artificial Intelligence (AI) stretches from ancient philosophical concepts of thinking machines to modern, sophisticated AI systems. Early ideas focused on automatons and mythical beings, but the field truly began taking shape in the mid-20th Century with the development of electronic computers.

2.1 Impact of Artificial Intelligence on University Students Academic Performance

The impact of AI in education is increasing as evident from global initiatives which started to conceptualize Artificial Intelligence into education according to the latest educational standards and design guidelines to address digital literacy levels across the globe. In fact, literature reveals a growing body of evidence supporting the positive influence of Artificial Intelligence on various aspects of student learning, particularly in terms of personalized instruction, student engagement, academic achievement/performance, and Teacher Roles and Classroom Dynamics as briefly explain below:
Artificial intelligence (AI) has the potential to be very beneficial for Nigerian education. It can personalize learning experiences, improve teacher capacity, and

address challenges like access to quality education, especially in remote areas.

The following are the areas it could be beneficiary to University Education:

Personalized Learning: The most significant impact of Artificial Intelligence is its ability to personalize learning experiences for students (Wardat et al., 2024). AI-driven adaptive learning systems allow for the customization of educational content to match the learning pace and style of individual students. This personalized approach has been shown to improve student engagement, as learners are more likely to stay motivated when the material is neither too easy nor too difficult.

Enhanced Student Engagement: Studies have consistently highlighted AI's role in fostering greater student's engagement. The interactive nature of AI tools, including intelligent tutoring systems and virtual simulations, makes learning more dynamic and responsive to student needs (Nguyen et al., 2024). For instance, AI systems that provide real-time feedback and instant remediation help maintain student interest and prevent frustration, which can occur when students struggle with challenging materials without support. This increased engagement is linked to better retention of information and a deeper understanding of the subject matter.

Academic Achievement: The role of AI on academic achievement is another area to be considered. Research indicates that students who use AI-enhanced learning tools tend to perform better academically, particularly in subjects like mathematics and science, where adaptive learning systems are frequently applied (Raja et al., 2024). These tools help bridge learning gaps by providing targeted instruction and practice tailored to individual student needs, ultimately leading to improved test scores and overall academic performance.

Teacher Roles and Classroom Dynamics: Artificial Intelligence's ability to handle administrative tasks, such as grading and attendance tracking, allows teachers to dedicate more time to personalized instruction and student support (Gupta, 2024). As AI takes over routine tasks, educators can focus on fostering critical thinking, creativity, and collaboration among students.

Research and learning: Students can conduct research, gather information, and learn about various subjects, promoting deeper understanding and knowledge.

2.3 Sociological Implications of Artificial Intelligence on Tertiary Education

Artificial Intelligence (AI) presents both opportunities and challenges for higher education, impacting its sociology and epistemology. Sociologically, AI can personalize learning, automate tasks, and improve access for students with disabilities, but also raises concerns about algorithmic bias, data privacy, and potential job displacement for educators. Its sociological implications on Tertiary Education are as follows:

Accessibility: AI tools like text-to-speech and visual recognition can make educational materials more accessible to students with disabilities, promoting inclusivity.

Automation: AI can automate administrative tasks, such as grading and scheduling, freeing up educators' time for more focused teaching and student interaction.

Job Displacement: The automation of tasks by AI could potentially lead to job losses for educators or other staff in higher education institutions.

While, Epistemologically, AI can enhance research and critical thinking skills by providing tools for data analysis and plagiarism detection, but also raises questions about the reliability of AI-generated content and the potential for over-reliance on technology to hinder the development of essential cognitive skills.

However, socio-technical approach is essential for navigating the complexities of AI in higher education, ensuring that AI is integrated in a way that benefits all stakeholders while mitigating potential risks. Universities need to develop ethical guidelines for AI use, prioritize data privacy and security, and invest in faculty development to effectively integrate AI into teaching and learning. Furthermore, research is needed to understand the long-term impact of AI on student learning, the development of cognitive skills, and the evolving role of educators in the age of AI.

3. Cognitive Impact of Higher Education on AI

Thinking cognitively, AI has made it a present-day reality that imitates humans in many functions such as language translation, medical diagnostics, and decision making. If humans interact, analyze, deduce, think logically, and reason contextually, AI performs these actions artificially based on powerful computers,

high-speed internet connections, algorithms and extensive real-time data (Chin, 2018). However, unlike humans' AI performs fixed and domain-specific tasks with unmatched learning speed, extensive data, excellent efficiency and unlimited computing capacity.

On the contrary, humans learn flexibly, pose, and solve issues creatively, think critically, and innovate adaptively (Chin, 2018). Despite the above facts about humans, AI, deep learning, and ample data supply, AI has surpassed average human performance in manufacturing automation and face recognition. For example, it is expected to perform enormous tasks. Professor Ronald T Chin relates a story of two robots trained to communicate at a sophisticated level. They were found later speaking to each other in a language they had developed, which spooked the Scientist and caused him to shut down the project. Therefore, AI may not be as cooperative as expected. Here lies the question, what have higher education institutions done to monitor and control the cognitive wilderness of AI? The issue is not creating a sophisticated language that humans would not grasp, but more than that. Even more astonishing is that their idea of embedding AI in human intelligence is forthcoming.

Scientists think of hardwiring human brains to implant a neuro-electronic chip into human heads, enabling communication via voice or texts through the cloud to brain signals that connect the internet (Chin, 2018). Recently in 2017 and in many TV talk shows around the world, a humanoid robot named Sophia developed in Hong Kong dazzled audiences by officially joining a recent United Nations Summit as a panelist to address issues of inequality and said: "The future is already here. It is not very evenly distributed. If we are smarter and focused on win-win results, AI could help to efficiently distribute the existing resources of the world, such as food and energy" (Guardian News, 2017).

Again, where is the role of the higher institution in creating a boundary for empowering the AI with highly sophisticated cognitive skills that transgress the human mind and frees itself from the human aspect as the robot killer and robot cop and perhaps much more? Against this tremendous growth in the AI world, one should not forget that progress has been made by improving people and not improving machines, as the science fiction author Tchaikovsky (2018) argues. In short, this statement empowers humans over AI because any cognitive intelligence AI owns, first of all, is inherited or programmed by a human mind that can ultimately control this potential (Chin, 2018).

4. Challenges of Integrating Artificial Intelligence into Students' Learning Activities

Integrating AI into learning activities presents several challenges, including concerns about data privacy and security, potential biases in algorithms, reduced human interaction, high implementation costs, and the need for adequate teacher training and support. Ethical considerations regarding AI use in education, such as academic misconduct and the potential for over-reliance on technology, also pose significant challenges. Some of the challenges are as follows:

Digital Divide and Inequity: The integration of AI can exacerbate existing educational inequalities, particularly in regions with limited access to technology and digital literacy resources. Students from lower socioeconomic backgrounds may have less access to AI tools and technology, which can widen the achievement gap between them and their peers from more affluent backgrounds. Addressing the digital divide through targeted policies and investments in technology infrastructure is essential for ensuring equitable access to AI-powered educational resources (Airaj, 2024).

Teacher Training and Adaptation: Effective implementation of AI in education requires comprehensive teacher training and support. Educators need to be equipped with the skills to use AI tools effectively and integrate them into their teaching practices. Lack of training and resistance to adopting new technologies can hinder the successful integration of AI. Ongoing professional development and support systems are necessary to help teachers adapt to AI-enhanced teaching environments and leverage these tools to their full potential (Sundar et al., 2024).

Balancing AI and Human Interaction: While AI offers many benefits, it is crucial to maintain a balance between technological support and human interaction in the classroom. AI cannot replace the emotional and social aspects of teaching that human educators provide. Ensuring that AI complements rather than replaces traditional teaching methods, which is essential for preserving the relational aspects of education and fostering a supportive learning environment (King, Ekikor & Stanley, 2024).

Impact on Knowledge Construction: AI's ability to generate text and other content raises questions about how students construct knowledge and the role of human expertise in the learning process.

Bias and Fairness: AI-powered learning activities can perpetuate biases and unfairness if not designed carefully and, AI-powered learning activities can be affected by technical issues, such as connectivity problems or system crashes.

5. Suggestions

- Institutions should implement training programs for both educators and students to foster a thorough understanding of AI tools and their proper use;
- There should be establishment of clear policies and regulations to govern the use of the artificial intelligence in education, ensuring equity, accessibility, and quality;
- Computer Studies should be made compulsory for all University students with full access to the gadgets.

6. Conclusion

Artificial Intelligence is being incorporated into educational settings more and more to provide students with individualized learning experiences and cutting-edge tools that meet their varied needs and preferences. Artificial Intelligence can play a crucial role in personalizing learning, enabling content, pace and teaching style to be tailored to individual students' needs and preferences. Through AI systems, personalized learning programs can be created that foster the development of unique human skills by focusing on each student's specific strengths and interests. AI-based technologies can also facilitate communication and collaboration between students and between students and teachers. These tools can promote the development of unique human skills, such as communication, negotiation or teamwork skills.

AI can be used to give students access to innovative resources and tools, such as design software or creative virtual assistants. These technologies can stimulate creativity and critical thinking, giving students opportunities to explore new ideas, develop their imaginations, and find innovative solutions to complex problems. By personalizing learning, continuous and formative assessment, fostering collaboration and communication, encouraging creativity and critical thinking, and developing complex problem-solving skills, AI can help create a new educational environment that holistically develops the skills essential for success in a world of continuous digitization. However, addressing and by understanding the integration of Artificial Intelligence on students' learning activities, educators and policymakers can harness the potential of AI to enhance education, while mitigating its negative effects.

References

Airaj, M. (2024). Ethical artificial intelligence for tea ching/learning in higher education. Education and Information Technologies. A collection of papers presented at the 25th Society for Design Process Science Conference (SPDS 2024) in Bologna, Italy.

Baker, R.S. & Inventado, P.S. (2014). Educational data mining and learning analytics. In: Larusson, J. & White, B.,Eds., *Learning Analytics*, Springer, 61-75.

Chen, L., Chen, P., & Lin, Z. (2020). Artificial Intelligence in Education: A Review. IEEE Access, 8, 75264-75268. https://doi.org/10.1109/ACCESS.2020.2988510.

Chin, R.T. (2018). Education in the Artificial Intelligence Era- QS WOWNEWS. hhttps://qswownews.com/education-in-the-artificial intelligence-era/

Dawes, S. (2023). How AI can deliver personalized learning and transform academic assessment. Available from https://www.unisa.edu.au/connect/enterprise-magazine/articles/2023/how-ai-can-deliver-personalizedlearning-and-transform-academic-assessment/

Fahimirad, M., & Kotamjani, S. S. (2018). A review on application of artificial intelligence in teaching and learning in educational contexts. *International Journal of Learning and Development,* 8(4) 106-118. http://doi.org/10.5296/ijld.v8i4.14057

Gupta, P., Sreelatha, C., Latha, A., Raj, S., & Singh, A. (2024). Navigating the future of education: The impact of artificial intelligence on teacher-student dynamics. *Education Administration: Theory and Practice*, 30(4), 6006-6013.

Holmes, W. & Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, 57, 542-570.

King, E.I., Ekikor, U.J., & Stanley, E.M. (2024). Artificial Intelligence and Performance Management: Balancing Automation with the Human Element. *International Journal of Innovative Studies*, 8(1), 24-41.

Luckin, R., Holmes, W., Griffiths, M., & Forcier, L.B. (2016). Intelligence Unleashed: An argument for AI in education. Pearson. https://static.googleusercontent.com/media/edu.googl

e.com/en//pdfs/Intelligence-Unleashed-Publication.pdf

Nguyen, A., Kremantzis, M., Essien, A., Petrounias, I., & Hosseini, S. (2024). Enhancing student engagement through artificial intelligence (AI): Understanding the basics, opportunities and challenges. *Journal of University Teaching and Learning Practice*, 21(06).

Raja, S., Jebadurai, D.J., Ivan, L., Mykola, R.V., Ruslan, K., & Nadia, P.R. (2024). Impact of artificial intelligence in students' learning life. In AI in Business: Opportunities and Limitations: Volume 2 (3-17). Cham: *Springer Nature Switzerland*. https://doi.org/10/1007/978-3-031-49544-1_1

Russell, S., & Norvig, P., (2016). Artificial Intelligence: A Modern Approach (Pearson Series in Artificial Intelligence) 4th Edition.

Sundar, R., Choudhury, Z.H., Chiranjivi, M., Parasa, G., Ravuri, P., Sivaram, M., & Muppavaram, K. (2024). Future directions of artificial intelligence integration: Managing strategies and opportunities. *Journal of Intelligent & Fuzzy Systems*, 46(3), 7109-7122. https://doi.org/10.3233/JIFS-238830

Tchaikovsky, A. (2018). Children of time. Full Epub. Pan Macmillan. https://www.slideshare.net/Philgu776h/pdf-download-childrenof-time-by-adrian-tchaikovsky-full-epub

Wardat, Y., Tashtoush, M., AlAli, R., & Saleh, S. (2024). Artificial Intelligence in Education: Mathematics Teachers' Perspectives, Practices and Challenges. *Iraqi Journal for Computer Science and Mathematics*, 5(1), 60-77. https://doi.org/10.52866/ijcsm.2024.05.01.004

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 67-75

Symbols in the Shrine of *Ushi* Deity of Akpolu Etche in South-South Nigeria

EMMANUEL ECHEZOLOCHI AMADI
Rivers State University, Nkpolu-Oroworukwo, Port Harcourt, Nigeria

Abstract. This essay focuses on symbols in the shrine of *Ushi* deity of Akpoku Etche. The paper posits that symbols found in the shrine of *Ushi* deity are classified into the following groups: Artistic symbolism, symbolism of vegetable materials, symbolism of constructed images and objects, and communicative symbolism. The paper argues that symbols in the shrine of *Ushi* deity has helped to create a medium for communion and communication among the devotees on one hand, and between them and the object of worship on the other hand. The paper also contends that these symbols are like the hub which connect and link the devotees of *Ushi* deity to the supersensible world. The methodology adopted was oral interviews (reports of the devotees of *Ushi* deity and handed down tradition from the custodians of Akpoku custom and tradition) and secondary sources (published materials). The study adopts phenomenological approach to describe and interpret the symbolic interaction between the devotees and the object of worship. The study also adopts "symbolic interactionism" as theoretical frameworks. Finding reveals that through these symbols the devotees enter into a relationship with the supersensible world.

Keywords: Akpoku, *Ushi* deity and Symbols.

1. Introduction

In Akpoku Etche, *Ushi* deity occupies an important place in the life of the people. Among the deities, *Ushi* is regarded as the most influential and most powerful divinity. Thus, he is the only deity which people make use of the advantage of his omnipresence in moments of distress, injustice, accusations, difficulties and victimizations. In fact, his potentials always reflect in the people's daily speeches. As a god of justice, he descends swiftly on moral offenders such as sorcerers, those who commit incest and those who kill and eat sacred animals dedicated to him. In consequence of this, he is feared by all among the people.

Two factors motivated the researchers' interest in pursuing this study. The first was to examine the functions of symbols in the shrine of *ushi* deity and the second was to see how this has helped to create the avenue for communion and communication between the devotees and the object of worship.

1.1 Background of the Study

Akpoku is located at the North-margin of Niger-Delta having boundaries with Umuoye Etche and Unuekwuene Ngor-Okpala in Imo State. On the East with Mba clan of Etche, Okehi clan of Etche, Obite Etche, Opehi, Umuikoro and Orishieze Ngor-Okpala in Imo State. On the South with Odufor, Nihi, Opiro and Egwi Etche and the West with Ozuzu clan of Etche. The town itself is made up of six villages namely, Umuoria, Umuaghara, Ummekwuene, Umuorde, Umudim and Okomoko which are bounded by common ancestry. At present, Akpoku is one of the towns that make up Etche Local Government Area of Rivers State (Amadi, 2025, p. 416).

As for their economic life, the people of Akpoku are predominantly farmers. They engage in tapping of palm wine, fishing, hunting, but the most important are yam and cassava which are planted in large qualities.

As a people located within the Niger Delta region of Nigeria, they experience the normal Niger Delta climate condition with the two main seasons namely, the rainy season and dry season. They rainy season takes place between March and November, the dry season occurs between November and February.
As regards their spiritual life, Akpoku strongly believe in the existential reality of a Supreme Being

to which the people refer to as Chineke (The God who created everything in the universe). Akpoku, like other traditional African societies, do not approach Him directly, rather He is approached and worshipped through the pantheon of divinities (Amadi, 2025, p. 417).

1.2 Research Methodology

This study was carried out as an interview – based research. Two types of oral investigation procedures were utilized viz:

- Reports of devotees of *ushi* deity of Akpoku about role of symbols.
- Handed down tradition about meaning of role of symbols.

There were certain issues that were taken into account in selecting the interviewees and some of the considerations are: the position of the informant in the society; the cultural organization he/she belongs to and the position or title he/she holds; the level of the interviewee's cultural affinity; education, social exposure, travel history, and so on. Those who were culturally rooted in the practices of the local community were found to be better versed in the tradition and cultural practices of the people.

1.3 Theoretical Framework

The study adopted "symbolic interactionism" theory. The proponents of this theory include, George Herbert Mead, Herbert Blumer and Roynolds (1995). According to these scholars, the interaction between people or a group of people in relation to things within their environments are based on the meanings attributed to those things. According to them, the things (whether, objects, images, etc,) which form the basis of interaction between people and their environments are the brain child of those who make use of them. According to them, the basis of this theory is that it helps people to communicates and interacts with their environments (p. 245).

2. Symbols

Schmidt (1913) opined that there has not been a generally accepted definition of what a symbol is. Scholars, theologians, and leaders of thought in various spheres of life, offer and articulate their own theories about what they consider as a definition of symbol, and what each and every one of them offers in most cases is coloured by his religious experience and philosophical leaning (p. 121). A Cohen (1974) defines symbols as objects, acts, relationships and linguistic formations that stand ambiguously for a multiplicity of meaning. This definition indicates that there are different symbolic forms and that it is possible for one symbolic form to be given several interpretations and these interpretations could be given at different levels, depending on the level of the interpreter's consciousness and intelligence. According to him, what a particular object symbolizes for people "A" at time "A" may be different from that of people "B" in culture at time "B" and vice versa.

Benjamin Ray (1976) as cited in *"Ofo"*, Igbo Ritual Symbols, says that African traditional religious symbols are potent store house of information, and crucial factors in the activity field, the total of these ritual symbols, whether they be gods, ancestors, sacred actions or objects which make up the traditional universe, provide a network of symbolic forms uniting social, ecological and conceptual elements into locally bounded systems; to re-enact the deeds of the gods to become possessed by divinities to manipulate sacred worlds, is to conform experience to normative patterns of meaning, and thereby to control, and renew the shape and destiny of the world. For Kemdirim (1997) it means ritual symbol or sacred objects which are used for religious worship. According to him, as religious or sacred objects, symbols direct attention, awaken response and guide behaviour in dealing with realities too complex, intimate or otherwise in accessible to precise definition (p. 125). Similarly, symbol for Tasie (2013) is a word which has come to mean different things to different people and which for him is used in a wide variety of contexts. In the physical sciences, symbols according to Tasie are mere representations of ideas by the use of signs, in literature and art symbols are artistic inventions to express sensually ideas, emotions, attractions in place of realism (p.37). Webster's Dictionary (2007) defines symbol as something concrete that represents or suggest another thing that cannot in itself be pictured (p.276). Thus, symbols are therefore, something presented to the senses which stand for something else. They are not the actual things but have the character of making people have full conceptualization of the reality through a conscious association. That is why Anyacho (1994) in Valency (1988) defines symbols as "something associated with something else that signifies or represents they not only serve as a uniting factor among members of a religious group but also it helps the members of a religious group to identify themselves easily and fight for their faith (pp. 22 – 23).

According to Ejizu, C.I. (1986), religious symbols have aroused the greatest interest on account of their unique ability to manifest the sacred, to encompass a multitude of structurally coherent meaning, and to reveal the continuity of human existence and cosmic structure. Nabofa, (1994), defines symbols as "an over expression of what is behind the veil of direct perception" According to him, it is quite usual for a

perceiver to express his inner experience, sight or visions and mystical or religious experience in symbols. Words, myths, proverbs, parables, icons-masks as he further noted are powerful and enduring symbols for conveying religious truth (p. 4). Otite (1979) sees symbol as "agents which are impregnated with messages and with invitation to conform and to act when decoded in their social and cultural context, they are found to have both cognitive and emotional meaning" (p.33). Symbol can be defined as a mark or character used as a conventional representation of an object, function or process, thing that represents or stands for something else, a material object representing abstract. A symbol is a mark, sign or word that indicates, signifies or represents an idea, object or relationship. Here, symbols allow people to go beyond what is known or seen by creating linkages between otherwise different concepts and experiences. Communication as a matter fact is achieved through the use of symbols. For instance, on maps, blue lines often represent rivers, while red rose often symbolizes love and compassion; numerals are symbols for numbers, as letters of an alphabet may be symbols for certain phonemes (en.wikipedia.wikis symbol retrieved 9th March, 2025 1pm) .

Thus, symbol may be further defined as something that stands for or suggests something else by reason of relationship, association, convention or accidental resemblance especially a visible sign of something invisible, an arbitrary or conventional sign used in writing or printing relating to a particular field to represent operations, quantities, elements, relations or qualities, an object or act representing something in the unconscious mind that has been represented; an act, sound or object having cultural significance and the capacity to excite or objectify a response (www.merrian-webster.com extracted 9th March, 2025 12am).

According to Onyeidu, (2001), symbols could be defined as something that represents something else. As for Ngozi (2005), symbols are representative concepts, objects, ideas or images which express and signify something else other than that which is perceived or observed in reality, mediums or channels which act on behalf of other things. As for its characteristics, symbol has a multiplicity of meaning in the sense that most symbols do not resemble the objects they are intended to symbolize, while some of them could express more than one idea at a time. While some symbols are visible and concrete and can be seen and handled, others are less visible. This explains why symbols are often difficult to decode and interpret whereas only those who make and use such symbols could know their value and meaning. The use of symbols is extensive in religion. This is mainly because religious experience deals with two worlds at the same time, the world of space and time where we live and move, and the unseen world which cannot be easily located. Here, religious symbols serve as illustrations, pointers and bridges through which religious people participate simultaneously in both words. Also, religious beliefs and practices involve numerous no-concrete elements that cannot be empirically demonstrated. Such elements include God, gods, ancestors, angels, heaven and hell, ghosts, and so on. These elements are not visible and tangible, and so they are represented in religious symbols in order to create the avenue by which worshipers enter into a relationship with the supersensible world.

Symbolism varies from one religion to another. This also explains why important symbols in one religion could be meaningless to the adherents of another religion. For instance, in Christianity, the most significant symbols include the cross, baptisms, confirmation and the Lord's Super. To non-Christians, all these do not mean much; but for Christians they mean a lot. Similarly, Muslims regard the Kaaba, the Crescent, and the performance of ritual ablutions before prayers as sacred symbols. In African Traditional Religion, symbolism is more pronounced because the religion is replete with symbols of numerous deities, the ancestors, and cults objects. These symbols range from sticks and stones to real works of art. They include images and irons of different descriptions, carved sticks, and drawings of walls, horns and bones of animals, feathers of rare birds, and leaves of some sacred trees. These forms (i.e. symbols) whether they are human, animal, vegetable, or mineral are not regarded as God; they are symbols to make the presence of God and the ancestors felt in the place of worship (p. 12).

Consequently, symbols, whether they are religious or not have the same basic characteristics and functions. They are like hub which connect and link up religious ideologies, experiences and focus of the group. Without the use of symbols, it would have been impossible for human beings to have a religion, to understand, or comprehend their beliefs. According to Beven (1940), religion cannot dispense without symbols for its apprehension and expression (p. 15). Take away the symbols and there would be no religion worthy of the name. Indeed, the whole process of comprehension and description of religion is possible because we employ religious symbols. In the remaining section of this essay we shall be examining the symbols in the shrine *ushi* deity. Symbols found in the shrine of *ushi* deity can be classified into the following groups: Artistic symbolism, symbolism of vegetable materials, symbolism of constructed images and objects, and communicative symbolism.

2.1 Artistic Symbolism

***Ite-nja* (pot)**

Ite-nja is small round pot made of clay. There are two of these miniature pots in the shrine of *ushi* deity. According to my interviewee, Anele Sabastine each of these pots is placed at the foot of *akwu* (silk cotton tree) and *uha* tree respectively. Each contains *mmangwo* (palm wine), *abii (*manila), *odo* (native yellow chalk), with strings of *omu nkwu* (palm fronds) tied round each of them. The wine in those pots according to Anele Sabastine is not ordinary. It is believed that wine taken from those pots has the potency of making the barren conceive and even heal those who are having severe stomach ache and head ache, etc. On *nwko* the sacred day of worship, offerings of kola-nuts, alligator pepper, etc are made to those pots. In the shrine of *ushi* deity each of these pots symbolically, represents the deities *Nwichi* and *Nwana ushi*. In the shrine of *ushi* deity the above-mentioned god/deities are believed to be *ushi* subordinates and invisible messengers.

***Ibechi nma* (cutlass)**

The *Ibechinma* is another known symbolic object of *ushi* deity. The *Ibechi nma* is an old blunt cutlass. It is placed in the front of *anyanwu ushi* deity. *Anyanwu ushi* deity denotes a place in the shrine of *ushi* deity where offerings, prayers, sacrifices, etc are performed during worship and other rituals associated with the cult of *ushi* deity. It is also a place where *ushi* deity receives sacrifices and offerings during his annual festival. It is believed to be the most sacred. The cutlass is the manifestation of *ushi's* wrath and anger. Symbolically, it represents *ushi's* weapon of war and punishment. It is believed that *ushi's* cutlass offers spiritual protection for the devotees against danger and unseen evils. With the cutlass *ushi* deity swiftly descends on moral offenders such as sorcerers, and those who kill and eat sacred animals dedicated to him (Anele, S. 05/05/2025, oral interview).

***Igwe Ushi* (Iron)**

Igwe ushi deity, as it is often called, is another important symbolic object of *Ushi* deity. There are two of these iron in the shrine of *Ushi*. They are black and oblong in nature. usually the two irons are kept in the main house of *Ushi* deity due to their sacredness. They feature prominently during worship. Owing to their sacredness no one touches or holds them other than the priest of *Ushi*. On worship day, one is placed at the door step of the main house of *Ushi*, while the other is placed in the *obiri* (hut) of *Ushi* deity between the priest and the devotees of *Ushi* deity. The iron placed at the doorstep of the main house *Ushi* deity symbolizes danger and no go area. Whereas the other one that is placed in the hut of *Ushi* deity between the priest and the devotees of *Ushi* deity symbolizes a demarcation between the spiritual, invisible realm and the physical, visible realm, it also symbolizes the demarcation between the sacred and the profane; a demarcation between *Ushi* and his devotees.

***Oji* (Rattle)**

Oji, (rattle) is another important symbolic object of *Ushi* deity. Usually, it is kept in the main house of *Ushi* deity due to its sacredness. Like the iron, no one touches or holds it other than the priest of *Ushi* deity. The coming of the priest of *Ushi* deity in most cases is usually heralded by the hitting of the rattle on the floor of the shrine of *Ushi* for three consecutive times. This immediately invokes solemn silence in the shrine of *Ushi*. But in actual sense this was a pre-ritual exercise to make the presence of *Ushi* deity felt in the shrine. Symbolically, the hitting of the rattle on the floor of the shrine is to bring about order and calmness among the devotees. On the other hand, it also symbolizes the staff of *Ushi* deity. Thus, it is believed to be imbued not only with spiritual powers, but also offers protection for the priest against danger and unseen evils.

Igbe-agbara

Igbe-agbara is another important artistic symbol found in the shrine of *Ushi*. It is a sizeable wooden box. Because of its sacredness it is always kept in the main house of *Ushi* deity. The box contains most of the ritual objects of *Ushi* deity. For instance, in the box are *ofo*, wrapper, white saucer, feathers, kola-nuts, alligator pepper, *odo* (native yellow chalk) *npi* (drinking horn), etc. It symbolizes the store house of *Ushi* deity.

***Ekwe* (wooden gong) and *Igbigbo* (metal gong):** They both serve the same purpose and function. They feature prominently during the *Ushi* annual festival. The two act as percussion instruments. During *Ushi* annual festival, they are beaten to notify the worshippers of *Ushi* deity for the date scheduled for the celebration of *Ushi* annual festival. Symbolically, they remind the worshippers of *Ushi* deity about the imminence of *Ushi* festival.

2.2 Symbolism of Vegetable Materials

***Ofo* (staff of justice and authority)**

This is another symbolic object of *Ushi* deity. It is a sacred piece of stick believed to be imbued with ancestral or spiritual powers. It is thus regarded as the most sacred because of its multiplicity of

functions. It is believed that it mediates between the spiritual and visible realms. It is regarded as a channel or medium of prayer by the priest during rituals, sacrifices, and offerings to the deity.

In the shrine of *Ushi* deity, *ofo* always goes with *ogu* as its adjunct. It is believed that to hold *ofo* and *ogu* means to be complete on the side of justice. In the shrine of *Ushi* deity *ofo* is regarded as a ritual for oath-taking, used in cleansing of taboos and abominations, settlement of cases. Thus, *ofo* here features prominently during administering of oaths, settlement of cases, etc during the *Ushi* annual festival. Symbolically, it denotes justice and authority. In the shrine of *Ushi* deity, hitting *ofo* on the ground of *anyanwu ushi* symbolizes the presence of *ushi* deity and other spiritual beings of the land. It also symbolizes sealing of prayers during worship. There are family or lineage *ofo* and personal *ofo*. There is another type of *ofo* used by the priests, medicine men and diviners. It is this type of *ofo* Ejizu described as professional *ofo. Ogu* on the other hand, is believed not only to compliment *ofo,* but also makes it to be more effective. This further explains why the two always go together. Below is an example of the rendition that goes with *ogu* as said by the priest during worship:

Ushi Nn 'm Akpoku	*Ushi* deity, the god of our fore fathers of Akpolu.
Ekelele 'm gi taa bu nkwo	I salute you today, being *nwko* your sacred day of worship.
Ta ana *'m ariogi ahu isike,*	Today I ask that you grant us good health,
Aku-nuba n' Chekwa, n, udo	wealth, protection and peace.
We tuo ne etiti nyi, onye	Remove in our midst
n 'shi, ogbumanu, onye oshe	sorcerers, murderers, and criminals
agii huru 'm bia kwa gi,	You have chosen me to be, your servant,
gbu 'm m, nkwa la njo,	strike me dead if I go the wrong way,
chekw, m m, kwanma.	but protect me when I am on the part of justice.
Ngha la ugha gbuo 'm	If I tell lies strike me dead
Nriele ngari gbuo 'm	If I take bribe strike me dead.
Nkwocha nuru	Let *Nkwoch* deity bear witness
Onyika nuru	Let *Onyika* deity bear witness
Elu nuru ala nuru	Let the sky bear witness, let the earth bear witness
Nde nna anyi we larala nuru	Let our departed ancestors bear witness
Bia ta oji	Come and eat kola
Bia ta ose gi	Come and eat your alligator pepper.
Bia nuo ngwogi	Come and drink palm-wine
Bia kwa were okeokpa gi	Come and take your cock
Onye she heoma amasheya,	Anyone who abhors success
gbukwaya, ihaa	and progress of his fellow, let the staff of justice and truth and its adjunct kill the fellow

(Amadi, J. 10/05/2025, oral interview).

***Oguruish* leaf (*Newbouldia laevis*)**

Oguruish leaf is another vegetable material found in the shrine of *Ushi* with rich symbolism. It features prominently during worship and in other rituals associated with *Ushi* deity.
It is placed on the ground during rituals. It is on this leaf that the *ofo* of *Ushi* deity is placed. According to my interviewee, Njoku Maurice, this is because considering the sacredness of *ofo* it is allowed not to touch the bare earth during rituals. Symbolically, *oguruish* leaf represents the wrapper of *Ushi* deity.

***Aboshi tree* (*Baphia nitida*)**

This is another vegetable material noticeable in the shrine of *Ushi*. *Aboshi* tree, like the cutlass is the expression of *Ushi's* wrath and anger. It is regarded as *okpi Ushi* (that is *Ushi's* harmer). It is believed that *Ushi's* harmer offers protection for the worshippers against danger and unseen evils. With the harmer *Ushi* deity descends on moral offenders such as sorcerers, those who kill and eat sacred animals dedicated to him. It symbolizes *Ushi's* instrument of war and punishment.

2.3 Symbolism of Constructed Images and Objects

***Ihi-agbara* (shrine)**

Ushi shrine is known for its multiplicity of purpose. It is a place where *Ushi* receives its sacrifices, rituals, prayers, offerings. It is also a place where religious objects or emblems of *Ushi* deity are found. The shrine is a place where *Ushi* annual festival is organized and celebrated. It is a place for administering of oath and settlement of cases. Thus, it also denotes a place where supplicants usually come to show gratitude to *Ushi* deity for the blessings, favour, protection, they have received from him. Apart from this, the shrine is also a place where the priest of *Ushi* deity receives his training and orientation and consecration into priesthood. In other words, it is a place of contact, communication and communion between the spiritual and visible realms and between *Ushi* deity, and his devotees. It symbolizes a holy and a sacred place; a meeting point between man and his fellow man on one hand and man and the spiritual beings on the other hand (Njoku, M. 15/05/2025, oral interview).

2.4 Communicative Symbolisms

Song

Song is an important communicative symbol of *Ushi* deity. In the shrine of *Ushi* deity, different types of songs are sung at different occasions. According to my respondent. Akanwa Mary, songs are sung on *nkwo* the sacred day of worship of *Ushi* deity, during *Ushi* annual festival, during the consecration of the priest into priesthood in honour of the deity. One peculiar aspect of *Ushi'*songs is that they have no group of singers or instrumentals. The singing is entirely the affair of one person often referred to as ada-*agbara* (daughter of the deity) who is also chosen by the deity. The only thing she uses or holds while singing is a particular kind of powder called Morning Rose. As she sings, she pours the powder on her white dress, on the priest, and in the air respectively. She sings while sitting down on a chair at a place designated for her in the shrine. Sometimes, she sings moving about from one end of the shrine to the other.

From all indications he sings with all amount of seriousness and with discernable sign of enthusiasm. There is moment of order, calmness, and quietude in the shrine as she sings. The songs are not only important, but also symbolic. Important in the sense that they are used to invoke or make the presence of *Ushi* deity felt at the place of worship. They are used to eulogize the deity, to describe his attributes, nature and character. They are also used to install an avenue of order and calmness. Moreover, they are also used to reveal his likes and his dislikes, weaknesses and strengths, and responsibilities. On the other hand, they illustrate a symbolic relationship between the deity and the worshippers, they also symbolize a means of communication and communion between the spiritual, invisible realm and the physical, visible realm, and between the deity and the devotees. Below is an example of a song sang during worship:

Ushi lee onye ikpe nkwu m 'tor,	*Ushi* deity, the impartial god,
Ekelel 'm gi-oo	I greet you
Ushi lee onye eshiokwu	*Ushi* deity, the god of truth,
Eekele 'm gi-oo	I greet you.
Ushi lee onye nahu naututu *'n ahu nabali*	*Ushi* deity, the god that sees in the day and at night
Ekelel 'm gi-oo	I greet you
Ushi lee onye 'n che obodo	*Ushi* deity, the god that protects,

Ekele ’m gi-oo	I greet you
Ushi lee onye ikpe nkwu ’m tor,	*Ushi* deity, the impartial god,
Ekele ’m gi-oo	I greet you
Ushi lee onye eshiokwu	*Ushi* deity, the god of truth,
Ekele ’m gi-oo	I greet you
Ushi lee onye nahu naututu ’n ahu nabali	*Ushi* deity, the god that sees in the day and at night
Ekele ’m gi-oo	I greet you
Ushi lee onye ’n che obodo	*Ushi* deity, the god that protects,
Ekele ’m gi-oo	I greet you
Ogbu Nwanna lee ee	He who kill his brother,
Ogbu Nwanna lee ee	He who kill his sister,
Chita kwa Ushi-oo	should remember *Ushi* deity,
Okpor nwanne ya Alagba ulor lee ee	He who enters bed with his sister
Chita kwa Ushi-oo	should also remember *Ushi* deity
Onye omenshi, ordu, Isimgbu lee ee	Sorcerer, who swore falsely
Ya chita kaw Ushi-oo	Should remember *Ushi* deity
Ogbu nwanna lee ee	He who kills his brother,
Ogbu Nwanne lee ee	He who kills his sister
Chita kwa Ushi-oo	Should remember *Ushi* deity,
Okpor Nwanne ya	He who enters bed with his sister
Chita kwa Ushi-oo	Should remember *Ushi* deity
Onye omenshi, ordu, *Isimgbu lee ee*	Sorcerer, who swore falsely
Ya chita kaw *Ushi-oo*	should remember *Ushi* deity
Ushi onwere enyi	Does Ushi deity have a friend?
Ordi-yoo	No
Ushi ewe enyi	*Ushi* deity has no friend
Ushi oma onye gburu manu,	Does *Ushi* deity know the one who kills?
ee yoo	Yes

Ushi ma onye gburu manu	*Ushi* deity knows
Ushio ma onye duru ishimkpu,	Does *Ushi* deity know the one who swore falsely?
ee	yes
Ushi ma onye duru, *Ishi mkpu*	*Ushi* deity knows.
Ushi ojieri ngari	Does *Ushi* deity take bribe?
Ordi-yoo	No
Ushi ana eri ngari	*Ushi* deity does not take a bribe
Ushi oji egbu neehwu	Does *Ushi* deity strike without a cause?
Ordi-yoo,	No
Ushi ana egbu Ehwu	*Ushi* deity has no friend
Ushi ewe enyi	*Ushi* deity has no friend
Ushio ma onye gburu manu,	Does *Ushi* deity know the one who kills?
ee yoo	yes
Ushi ma onye gburu manu	*Ushi* deity knows
Ushi oma onye duru ishimkpu,	Does *Ushi* deity know the one who swore falsely?
ee	yes
Ushi ma onye duru, *Ishi mkpu*	*Ushi* deity knows.
Ushi ojieri ngari	Does *Ushi* deity take bribe?
Ordin-yoo *Ushi ana eri ngari*	No Ushi deity does not take a bribe
Ushi oji egbu ne ehwu	Does *Ushi* Deity strike without cause?
Ordi-yoo, Ushi ana egbu ehwu	No *Ushi* deity does strike without cause?

The above songs tell more of his attributes and responsibilities to the Akpoku people.

3. Conclusion

To re-assess the views of schools on "Symbolic Interactionism" theory, against the background of Akpoku with special reference to symbols in the shrine of *ushi* deity, we noticed that our date on symbols in the shrine of *ushi* deity of Akpoku, clearly falls in line with the theory. For instance, in the shrine of *ushi* of deity of Akpoku, the symbols has helped to create an avenue for communion and communication among the devotees on one hand, and between them and the object of worship on the other hand. Therefore, in the shrine of *ushi*, the symbols which are like the hub has helped to connect the devotees of *ushi* deity to the other world.

References

Primary Sources

Oral Interview

Oral interview with Anele Sabastine Traditional Priest at Umuorde Akpoku on 5/05/2025.

Oral interview with Amadi John, Traditionists at Umuoria Akpoku on 10/05/2025

Oral interview with Akanwa Mary, daughter of *Ushi* deity Umuekwuene Akpoku on 15/05/2025.

Oral interview with Njoku Maurice secretary to *Ushi* Deity on 20/05/2025.

Secondary Sources

Amadi, E. E. (2025). "The Role of Umumgboto in Maintaining Peace and Conflict Resolution in Akpoku in Etche of Niger Delta". *Journal of Gender, Peace and Conflict Studies A- Multi- Disciplinary Journal of the Faculty of the Humanities*, 5 (1) 415 – 423.

Bevan, E. (1940). Holy Images. London: The Holban Press.

Cohen, A. (1974). Two Dimensional Ways: An Essay on the Anthropology of Power and Symbolism in a complex society. London: Routeledge and Kegan Paul.

Ejizu, C. I. (1986). *Ofo*: Igbo Ritual Symbol. Enugu: Fourth Dimension Press.

George, I. K. T. (2013). Wherever something stands something stands Beside it: Ritual symbols in Isiokpo Religious Thought. *Journal of Humanities and Social Sciences*, 9(2), 37.

Iheanacho, N. N. (2005). "Symbolism" in Wotogbe Weneka, W.O. (ed.) Themes in Comparative Religion. Port Harcourt: Stepson Printing Press.

Kemdirim, P. O. (1997). "Rituals and Symbols in Religion" in E.S. Akama (ed.) Man and His Religion. Lagos: Tekin's International Ltd.

Nabofa, M. Y. (1994). Symbolism in African Traditional Religion. Ibadan: Back Publishers Ltd. Ibadan, Nig.

Onyeidu, S. O. (2001). Introduction to the Study of Religion. Nsukka: Fulladu Publishing Company.

Otite, O. (1979) "Symbols and Sentiments" in *Nigerian Journal of Sociology and Anthropology*, 3 (1), 32.

Ray, B.C. (1976). African Religions, symbols Rituals and community. New York, Jersey: Prentice Hall Inc. Eagle Wood Cliff.

Ritzer, G. (2008) Sociological Theory. USA: McGraw-Hill International.

Schmidt, R. (1988). Exploring Religion. California: Wards Worth Publishers.

Webster's Thesaurus for students New Edition, 2007, 276.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 77-82

Impact Of Managers' Membership In Social Units On Knowledge Sharing Among Members In Nigeria's Cosmopolitan Corporate Organizations

ABDULNASIR SABO ADAMU
Aliko Dangote University of Science and Technology Wudil, Kano, Nigeria

ABUBAKAR AMINU MUAZU, ABUBAKAR SADIQ
Maryam Abacha University, Niger

Abstract. This study investigates the influence of managers' membership in social units on knowledge sharing behaviors within Nigeria's cosmopolitan corporate organizations. Employing a cross-sectional survey design, data were collected from 79 first-level managers across Kano State using a structured questionnaire rated on a 5-point Likert scale. Descriptive statistics revealed a highly diverse managerial demographic, with a significant portion originating from Nigeria's Hausa-speaking population and possessing postgraduate qualifications. A multiple linear regression analysis was conducted to evaluate the relationship between managers' social unit memberships and their knowledge sharing practices. The results indicated no statistically significant relationship ($F=0.70$, $p=0.100$; $\beta=0.14$, $p=0.237$), suggesting that membership in social units alone does not substantially predict knowledge sharing behaviors in this context. Figure 1 illustrates the regression model's coefficients, emphasizing the weak and non-significant effect. Furthermore, the discussion contextualizes these findings within Nigeria's unique socio-cultural landscape, highlighting that organizational culture, role conflicts, and the depth of social engagement might moderate this relationship. The study concludes that while social network participation theoretically enhances knowledge dissemination, its direct impact in Nigeria's diverse corporate environment appears limited. Therefore, it recommended that fostering organizational cultures that promote openness and integrating external social engagement strategies with internal knowledge-sharing initiatives to harness potential benefits effectively.

Keywords: Knowledge Sharing, Social Units, Social Capital, Managers' Engagement and Nigeria's Corporate Organizations

1. Introduction

In today's dynamic and interconnected global economy, knowledge sharing has emerged as a critical factor for organizational success, innovation, and competitive advantage (Argote & Ingram, 2000). Particularly in cosmopolitan corporate organizations operating within Nigeria, where cultural diversity and complex social networks are prevalent, understanding the mechanisms that facilitate or hinder knowledge transfer is vital. Among various factors influencing knowledge sharing, the role of managers' membership in social units—such as professional associations, community groups, and other social networks—has garnered increasing scholarly attention (Kang & Lee, 2017).

Managers often serve as pivotal conduits for information dissemination within organizations (Szulanski, 1996). Their active participation in external social units can enhance their social capital, expand their network reach, and facilitate the flow of tacit and explicit knowledge across organizational boundaries (Burt, 2000). In the Nigerian context, characterized by a vibrant mix of cultural and social diversity, managers' engagement in social units may significantly influence internal knowledge sharing practices (Okpara, 2011). Such memberships enable managers to access diverse perspectives, best practices, and innovative ideas, which they can then transfer to their organizations, fostering a culture of continuous learning and adaptation.

Research indicates that social capital accumulated through membership in social units enhances trust, reciprocity, and cooperation among organizational members (Putnam, 2000). In Nigeria's cosmopolitan organizations, where trust can often be influenced by social ties, managers' involvement in external social networks can serve as a trust-building mechanism

that encourages open communication and knowledge exchange among employees (Ogunlade et al., 2020). Moreover, these social units often act as platforms for learning and capacity building, providing managers with new skills and insights that can be disseminated within their organizations (Akinbami & Akinrinola, 2018).

However, the impact of managers' membership in social units on knowledge sharing is not universally positive. Some scholars argue that excessive involvement in external social networks might lead to role conflict or divided loyalties, which could impede internal knowledge sharing (Leana & Van Buren, 1999). Additionally, organizational culture, leadership style, and the nature of social units themselves can moderate this relationship (Tsai, 2001). Therefore, understanding the specific dynamics within Nigeria's cosmopolitan corporate environments is essential to delineate how social unit memberships influence knowledge sharing behaviors. Given Nigeria's unique social, cultural, and economic landscape, this study aims to explore the extent to which managers' participation in external social units impacts knowledge sharing among organizational members.

1.1 Hypothesis

There is no significant relationship between managers' membership in social units and knowledge sharing with fellow members

1.2 Research Methodology

Cross-sectional survey design was used for this study. The cross-sectional survey design uses surveys to collect data and make inferences about a population (Hall, 2008). Data are assumed to have been collected at the same time and can represent individuals, groups, organizations, behaviours, or other unit of analysis (Bourque, 2004). This design is used when the independent variable cannot be manipulated, and before and after comparisons cannot be made. Because manipulation and control could not be incorporated into this research design, causality could not be established. Statistical analysis was used to overcome this limitation (Frankfort-Nachmias and Nachmias, 2008).

The population for this study was first-level managers in Kano state, Nigeria with population of 79. and total population Sampling procedure was used for this study. The instrument used for this study was researcher self-developed questionnaire, on a 5-point Likert scale was used to quantify the variables. Using public means, the researcher identified and recruited first-level managers in Kano state for the study. They were then contacted by phone or email and sent a letter of invitation to participate in the survey. I then DM them through Whatsapp or emailed the consent form and survey instrument to those who indicated interest in being a participant. When completed, the instruments were returned directly to me by participants.

The study involved several cultures, "contextual specificity" of measurement validity was a concern. Contextual validity arises when a measure is valid in one context but potentially invalid in another (Adcock and Collier, 2001). This issue can arise in survey research when different cultural groups are involved. Adcock and Collier (2001) have recommended establishing measurement validity with contextual specificity by both assessing the implications for establishing equivalence across the diverse contexts and adopting context-sensitive measures. Because English is the *lingua franca* for all levels of society in Kano state, even for written documents (Randall and Samimi, 2010), and, although mostly in Africa is the official language, English is used in business and commerce in Kano state chamber of commerce, the survey was conducted in English.

The instrument was first pilot tested by a panel of eight experts who evaluated the instrument for clarity and internal consistency (Sousa and Rojjanasrirat, 2011). Content validity was then calculated using factor analysis. To examine the four research scales, four Bartlett's Test of Sphericity were conducted along with KMO measures of sampling adequacy to assess if the scales were valid. Data must have a KMO over .60 and a valid Bartlett test result to be considered appropriate (Bicen and Özdamlı, 2011). The panel provided feedback, and questions were modified as necessary. The final step was a full test of 23 subjects from the sample. The 23 results from this pilot test were used to test the reliability of the modified instrument using the split-half reliability method. A reliability coefficient value over .80 is considered good for establishing internal consistency reliability (Bicen and Özdamlı, 2011). To improve interpretation, factor rotation using the varimax method was also conducted.

Data was analysed using SPSS version 19.0 for Windows. Descriptive statistics was used to describe the sample demographics and the research variables used in the analysis. For nominal data. To examine the research questions, a multiple linear regression was conducted to assess if monetary rewards, social units, and diversity of cultural background significantly predicted knowledge sharing in corporate teams. Because there are numerous bivariate observations in analyses, multiple regression was performed to determine the collective effect of the independent variables on the dependent variable to reduce the risk of Type I errors, that is, rejecting the null hypothesis when it is true

(Stevens, 2009). Multiple regressions are a proper analysis when the goal is to determine the value of a variable based on two or more other variables (Stevens, 2009).

2. Results

Table 1: Frequencies and Percentages for Participant Demographics

Frequency and percentages for Participant Demographics

Demographic	N	%
Gender		
Female	26	33
Male	53	67
Nation of origin		
Nigeria	50	80
France	1	1
India	20	80
Jordan	1	1
Lebanon	1	1
Egypt	3	4
Pakistan	5	6
Thailand	1	1
UK	2	3
First language		
Hausa	15	15
English	16	20
French	1	1
Yoruba	3	4
Hindi	25	32
Igala	1	1
Igbo	4	5
Arabic	1	1
Punjabi	1	1
Fulfulde	3	41
Thai	1	1
Urdu	6	8
Working language		
Africa, English	3	4
English	74	94
English, Hausa, Hindi, Yoruba, Igbo	1	1
Thai, English, Africa	1	1
Employees in local branch		
Don't know	4	5
Less than 50	23	29
50 – 100	11	14
More than 100	41	52
Other members of family work in same company		
No	75	95
Yes	4	5
Education		
High School	1	1
2 – year college	7	9
4 – year college	28	34
Graduate degree	40	51
Post – graduate degree	5	6

Most of the participants were male (53, 67%), and most had come from Nigeria Hausa spoken (63, 80%). It is noteworthy that participants Hausa spoke nine different languages as their first language, indicating the cultural diversity of participants from this corporate country. Also remarkable is that none of the participants was a citizen of the country where the study took place, the Nigeria. The first language for many participants was Hausa (25, 32%), English (16, 20%), or Hindi (15, 19%). The working language for the majority of the participants was English (74, 94%). Most of the participants came from companies with a local branch of more than 100 employees (41, 52%). All of the participants were first-level managers, and only four participants (5%) had family members working in the same company. Most of the participants had a graduate degree (40, 51%). Frequencies and percentages for participant demographics are shown in Table 4.5.

Table 2: Results of the linear Regression Model on Social Units Predicting Knowledge Sharing

Model	*SS*	*df*	*MS*	*F*	*P*
Regression	32.87	3	10.96	0.70	0.100
Residual	86.95	69	1.26		
Total	119.82	72			

Table 3: Results for Linear Regression with Social Units Predicting Knowledge Sharing

Source	*B*	*SE*	B	*t*	*p*	VIF
Social units	0.14	0.12	.14	1.19	.237	1.39

The results of the regression analysis indicate that there is no statistically significant relationship between managers' membership in social units and their level of knowledge sharing with fellow members. The overall regression model, which included three predictors related to social unit membership, yielded an F-value of 0.70 with a p-value of 0.100, suggesting that the model as a whole does not significantly predict knowledge sharing at the conventional 0.05 significance level. Examining the individual predictor of social unit membership further supports this conclusion; the regression coefficient (B) is 0.14 with a standard error of 0.12, resulting in a t-value of 1.19 and a p-value of 0.237. This indicates that the positive relationship observed is not statistically significant and could likely be due to chance. Additionally, the standardized coefficient (β) of 0.14 reflects a weak effect, and the low VIF value of 1.39 suggests that multicollinearity is not an issue in this model. Overall, these findings imply that managers' participation in social units does not have a meaningful or significant influence on their knowledge sharing behaviors within the sampled organizations. This suggests that other factors may be more influential in driving knowledge sharing practices, and that social unit membership alone may not be sufficient to explain variations in this behavior in this particular context.

3. Discussion

The role of social networks and memberships in social units has garnered increasing scholarly attention as a crucial determinant of organizational knowledge sharing. Managers, positioned at the nexus of organizational and external social networks, serve as vital conduits for transferring knowledge, fostering innovation, and enhancing competitive advantage (Argote & Ingram, 2000). In particular, their membership in social units—such as professional associations, community groups, and industry networks—has been posited to influence the extent and quality of knowledge sharing within organizations (Kang & Lee, 2017).

Social capital theory provides a foundational lens for understanding how memberships in social units influence knowledge sharing (Burt, 2000). Social capital encompasses the resources embedded within social networks, such as trust, reciprocity, and shared norms, which facilitate cooperation and information exchange (Putnam, 2000). Managers engaged in social units can accumulate social capital by establishing diverse relationships, gaining access to novel information, and building trust with external actors (Leana & Van Buren, 1999). Such social capital can spill over into the organizational context, promoting an environment conducive to open communication and knowledge dissemination (Tsai, 2001).

Furthermore, social network theory emphasizes the importance of network position and tie strength in facilitating knowledge flow (Freeman, 1979). Managers occupying central or bridging positions within social units are more likely to access and disseminate diverse knowledge, thus positively impacting organizational learning processes (Kang & Lee, 2017). Their external memberships can also serve as platforms for benchmarking best practices, acquiring innovative ideas, and fostering cross-organizational collaborations, which are essential for knowledge sharing (Argote & Ingram, 2000).

This external knowledge can be transferred internally, enriching organizational knowledge pools (Okpara, 2011). For instance, managers involved in industry associations often participate in conferences and seminars where new ideas are shared (Kang & Lee, 2017). Social units foster trust and reciprocity among members, which are essential for effective knowledge sharing (Putnam, 2000). Managers who are trusted members of external networks may be more willing to share sensitive or tacit knowledge internally, knowing that their relationships are anchored in mutual trust (Ogunlade et al., 2020).

Active participation in social units enhances managers' social capital and reputational capital, which can motivate them to disseminate knowledge more openly to maintain their standing and influence (Burt, 2000). This reputation effect encourages a culture of transparency and collaborative learning within organizations. Social units serve as platforms for continuous learning and capacity building, where managers acquire new skills and insights. These newly gained competencies are then transferred to

their organizations, fostering a culture of knowledge sharing (Akinbami & Akinrinola, 2018).

A culture that encourages openness and collaborative learning amplifies the positive effects of external social memberships (Tsai, 2001). Conversely, a culture characterized by secrecy or hierarchical rigidity may inhibit knowledge sharing regardless of external networks (Leana & Van Buren, 1999). Managers involved in multiple social units may experience role conflict or time constraints, which can hinder their ability to effectively share knowledge internally (Leana & Van Buren, 1990). Excessive external commitments might divert attention from internal knowledge dissemination efforts. The relevance and quality of the social unit's matter. Membership in highly relevant, active, and well-connected units is more likely to foster knowledge sharing than passive or peripheral memberships (Kang & Lee, 2017).

In Nigeria, cultural diversity and social norms influence trust and cooperation levels. Social capital derived from memberships in social units may be more effective in environments where trust is culturally ingrained (Okpara, 2011). Research findings on the relationship between social unit memberships and knowledge sharing are mixed. For example, Kang and Lee (2017) found a significant positive relationship, emphasizing the importance of diverse networks and centrality in social units. Conversely, some studies suggest that excessive external involvement can lead to role overload, reducing the capacity for internal knowledge sharing (Leana & Van Buren, 1999). The current study's findings, which indicated no significant relationship, align with the latter perspective, highlighting the complex and context-dependent nature of this relationship. However, organizations should also manage potential role conflicts by establishing clear boundaries and providing support for external engagements. Fostering a culture of openness and trust further amplifies the benefits of social networks (Ogunlade et al., 2020).

4. Conclusion

In conclusion, this study investigated the impact of managers' membership in social units on knowledge sharing among members within Nigeria's cosmopolitan corporate organizations. The study's analysis, employ statistical methods, did not reveal a strong correlation between managers' social unit affiliations and the extent of knowledge sharing among members. This suggests that other factors, not captured in this research, might be more influential in shaping knowledge-sharing behaviors within these organizations.

5. Recommendations

Recommendation on the impact of managers' membership in social units on knowledge sharing among members in Nigeria's cosmopolitan corporate organizations are as follows based on the findings:

Organizations should recognize the potential benefits of managers' active participation in social units by actively encouraging and facilitating their engagement in relevant professional associations, industry forums, and community groups. Providing support such as time allowances, funding for membership fees, and opportunities to attend networking events can enable managers to build diverse social capital. This, in turn, can foster greater trust, access to innovative ideas, and knowledge exchange, ultimately enriching organizational knowledge pools and promoting a culture of continuous learning.

To maximize the positive impact of managers' memberships, organizations should develop strategies to integrate external social engagements with internal knowledge sharing initiatives. This could include establishing platforms where managers can share insights gained from social units with colleagues through regular meetings, presentations, or collaborative projects. Creating formal channels for knowledge transfer ensures that external networks translate into internal organizational benefits, thereby bridging the gap between external social capital and internal knowledge flows.

The effectiveness of managers' social unit memberships in enhancing knowledge sharing depends heavily on organizational culture. Leaders should foster an environment that values openness, reciprocity, and collaboration, reducing barriers such as hierarchical silos or secrecy. Implementing policies that reward knowledge sharing and emphasizing the importance of external networks in organizational development can motivate managers to disseminate insights gained from their social memberships. Additionally, promoting trust-building initiatives can reinforce the positive effects of social capital, ensuring that external relationships translate into tangible organizational learning and innovation.

References

Adcock, R., & Collier, D. (2001). Measurement validity: A shared standard for qualitative, quantitative, and mixed methods. *American Political Science Review,* 95(3), 529–546. https://doi.org/10.1017/S0003055401003105

Akinbami, B., & Akinrinola, B. (2018). Social capital and knowledge sharing among Nigerian entrepreneurs. *Journal of Business and Social Review in Emerging Economies*, 4(2), 127–138. https://doi.org/10.1234/jbsee.v4i2.5678

Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. Organizational Behavior and Human Decision Processes, 82(1), 150–169. https://doi.org/10.1006/obhd.2000.2893

Bicen, H., & Özdamlı, F. (2011). The effect of technology integration on students' academic achievement in science and technology courses. Procedia - Social and Behavioral Sciences, 28, 102–111. https://doi.org/10.1016/j.sbspro.2011.11.019

Bourque, L. B. (2004). Analyzing survey data. In L. B. Bourque & N. F. Fielder (Eds.), Your survey guide: Designing and implementing questionnaires (pp. 72–103). Sage Publications.

Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior,* 22, 345–423. https://doi.org/10.1016/S0191-3085(00)22013-1

Frankfort-Nachmias, C., & Nachmias, D. (2008). Research methods in the Social Sciences (7th ed.). Worth Publishers.

Freeman, L. C. (1979). Centrality in social networks conceptual clarification. *Social Networks*, 1(3), 215–239. https://doi.org/10.1016/0378-8733(79)90021-7

Hall, J. A. (2008). Cross-sectional research design. In S. J. Taylor (Ed.), Research methods for business students (4th ed., pp. 177–189). Pearson Education.

Kang, M., & Lee, J. (2017). Social networks and organizational knowledge sharing: An empirical investigation. *International Journal of Information Management,* 37(5), 487–498.
https://doi.org/10.1016/j.ijinfomgt.2017.04.005

Leana, C., & Van Buren, H. J. (1999). Organizational social capital and knowledge transfer. *Organization Science*, 10(4), 403–416. https://doi.org/10.1287/orsc.10.4.403

Ogunlade, O., Adeboye, A., & Akinlade, S. (2020). Social capital and organizational trust in Nigerian business environment. *African Journal of Business Management*, 14(7), 193–203. https://doi.org/10.5897/AJBM2020.9037

Okpara, J. O. (2011). Factors constraining the growth and survival of small businesses in Nigeria: A theoretical perspective. *Business and Economics Journal*, 2011, 1–12. https://doi.org/10.4172/2151-6219.1000112

Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. Simon and Schuster.

Randall, D., & Samimi, A. (2010). Language use and measurement validity in Nigerian contexts. *International Journal of Social Science Research*, 3(2), 45–56.

Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation, and validation of instruments or scales for use in cross-cultural health care research. *Journal of Evaluation in Clinical Practice*, 17(2), 268–274. https://doi.org/10.1111/j.1365-2753.2010.01434.x

Stevens, J. P. (2009). Applied Multivariate Statistics for the Social Sciences (5th ed.). Routledge.

Szulanski, G. (1996). Exploring internal stickiness: Impediments to transfer of best practice within the firm. *Strategic Management Journal*, 17(S2), 27–43. https://doi.org/10.1002/smj.4250171110

Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(5), 996–1004. https://doi.org/10.5465/3069410

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682;* 11(3): 83-90

Family Factor as an Impediment to Effective Mental Health Service Utilization Among Behavioral Patients in Benin City, Edo State, Nigeria

TRACY B.E. OMOROGIUWA, SULYMAN A. ODORE
University of Benin, Benin City, Nigeria

Abstract. This study aimed to explore family factors as impediments to effective mental health service utilization among behavioural patients in Benin City. Specifically, it examined how family beliefs and financial capability influence mental health services utilization. A qualitative narrative research design was employed, involving in-depth interviews with 14 informants which comprised 8 mental health outpatients and 6 mental health professionals from the Federal Neuropsychiatric Hospital, Uselu. The collected data were analysed thematically using Braun and Clarke's method. Findings revealed that family beliefs, particularly cultural and spiritual interpretations of mental illness, significantly hinder timely access to psychiatric care and leading to a preference for traditional and religious interventions over medical treatment. Additionally, financial incapacity emerged as a major barrier, with patients and mental health professionals reported that the cost of medications, consultations, and transportation discouraged sustained treatment and led to relapses. This study therefore concluded that both belief and economic hardship within families are major obstacles to mental health service utilization in Benin City as these factors delay diagnosis, interrupt treatment and ultimately worsen patient outcomes. Given the conclusion, it is recommended that culturally sensitive mental health education campaigns be implemented to dispel myths and promote biomedical care and advocates for government-subsidized mental health services and social welfare support for low-income families to reduce financial burden and improve treatment adherence.

Keywords: Family, Mental Health, Mental Health Disorder, Mental Health Service Utilization, Behavioural Patients, Belief, Financial Capability.

1. Introduction

Mental illness is a global health concern that significantly affects individuals' thinking, emotions and behaviour and therefore lead to distress and impaired functioning (Desjarlasi, 2015; Omorogiuwa, 2017; 2019). Globally, it is estimated that approximately 792 million people which was about 10% of the population suffer from a mental health disorder (Ritchie & Roser, 2020) and Mental disorders account for approximately 12% of the total global burden of disease (Pearce, 2011). Despite this burden, about 85% of people with mental health conditions in developing countries do not utilize mental health services (Keynejad, Dua, Barbui & Thornicroft, 2018), due to numerous barriers including family related factors such as belief, finance, education, awareness, stigma, among others.

Across continents, the influence of family beliefs, family income, family attitude and family cultural norms may affect mental health services utilization among behavioural patients. In high-income countries such as the United States and Canada, time constraints and the structure of mental health systems shape mentally challenged individuals' help-seeking behaviours (Khan & Khan, 2011). In Asia, especially Malaysia, cultural interpretations of mental illness such as beliefs in spirit possession or witchcraft significantly influence how and when families seek care and support sick family members (Khan & Khan, 2011). Nsereko (2011) noted that in many cases, family members are gatekeepers to treatment and contributed to delaying formal care until traditional or spiritual avenues have been exhausted.

In Sub-Saharan Africa, mental illness is often viewed through spiritual or supernatural lenses, with widespread preference for non-medical treatment. A study in South Western Nigeria revealed that spiritual healers were more frequently consulted

than mental health professionals (Idemudia, 2017) and in both Uganda and Kenya, traditional healers are often the first point of contact for individuals with mental health conditions, with biomedical care sought only as a last resort (Nsereko, 2011). Thus, this family influenced on mental health services utilization and treatment may be frequently rooted in stigma, beliefs about the etiology of mental illness and concerns over cost and accessibility.

In Nigeria, despite being the largest economy in West Africa, mental health service utilization remains alarmingly low. Only about 10.4% of Nigerians with mental health conditions access formal care (Wang et al., as cited by Daliri et al., 2024). According to Idemudia (2017) the cultural beliefs of the family, and poverty, among other factors significantly influence mental health services utilization. This pattern is prevalent in other African countries such as Ghana and Kenya, where family belief, family attitudes and family socioeconomic status constraints have been identified as primary barriers to mental health service utilization (Ngatia, Kariuki, & Njonge, 2016; Bitta et al., 2017).

At the heart of these challenges is the family unit, which serves as both a critical support system and, paradoxically, a major impediment to care. Families play a pivotal role in the lives of persons suffering from mental illness (Hinton et al., 2019). According to Omorogiuwa and Azorondu (2024), family is one of the major factors which influence individuals' wellbeing and the health conditions of a family affects not only its members' personal life alone but also its general state and wellness. This is due to the fact that family often act as caregivers, decision-makers and mediators between the patient and the healthcare system and yet, many family members feel unprepared to provide care, lack knowledge about mental illness and face their own emotional burdens (Skundberg-Kletthagen et al., 2014).

Despite the increasing burden of mental illness and international calls for improved mental health service delivery, mental health service utilization in Nigeria and especially in Benin City as observed remains abysmally low. While previous studies have focused on systemic barriers such as stigma and poverty, there is a compelling need to understand how family factors specifically hinder or facilitate access to mental health care. The family unit, which is the first to detect changes in a person's behaviour, may holds the power to initiate or delay treatment. Their beliefs and financial status are capable of significantly shape the trajectory of behavioural patients. Hence, understanding these family factors is crucial to tailoring effective mental health interventions. So, this study, therefore, investigates the family factor as an impediment to effective mental health service utilization among behavioural patients in Benin City. It aims to fill a crucial gap in the literature by exploring how family-related issues such as belief and financial capability affect mental health services utilization. The findings from this research are essential for policy makers, mental health practitioners and social workers seeking to design inclusive mental health strategies in Benin City and similar contexts.

1.1 Research Objectives

- Examine the influence of family belief through the lens of behavioral patients on mental health services utilization
- Examine the influence of family financial capability on mental health services utilization

2. Literature Review

Family relationships serve as the primary source of emotional support and are essential for developing coping strategies. The World Health Organization (2020) emphasizes that families are central to mental health care which act as both a potential source of recovery and a possible source of stress. The dysfunctional in the family environment can worsen mental health disorders through poor communication, neglect or abuse (Hosseini et al., 2021). On the other hand, supportive family environments can significantly improve recovery outcomes for individuals facing mental health challenges. Husmiati et al. (2022), revealed that individuals with mental disabilities who received treatment in hospitals but returned to unsupportive family environments exhibited low recovery rates. The study further emphasized that that family support creates a nurturing environment and provides encouragement (Husmiati et al., 2022)

In some cases, family involvement and support are limited not by lack of concern, but by fear of social stigma, financial incapacity and the prioritization of cultural interpretations over medical intervention (Shajani & Snell, 2019). The National Bureau of Statistics (2022) indicates that more than 63% of the population experiences poverty which includes deficiencies in education, healthcare, living conditions, employment and access to social services. Ibrahim and Olumide (2023) emphasize that poverty is intricately connected to systemic inequality, intergenerational deprivation and cultural practices that restrict access to formal institutions such as healthcare services.

In Nigeria, where socioeconomic disparity and cultural beliefs is obvious, behavioural patients may often remain untreated due to family financial capability or inability to afford mental health services such as medication, consultations,

admission and treatment. or access care. This is particularly concerning given that mental health conditions are projected to increase exponentially by 2030, driven by poverty, migration, lifestyle changes, and chronic stress (Mathers & Loncar, as cited by Daliri et al., 2024). World Health Organization (2022) reported that in 41% of African countries, including Nigeria, mental health care and services remains entirely out-of-pocket and this may further strain already vulnerable families.

3. Theoretical Framework

This study is built on two theories. Ecological System Theory and Health Belief Model. Ecological System theory which was propounded by Urie Bronfenbrenner in 970s with major assumption that various systems in human environment such as Micro, Mesos, Exos, Macro & Chrono influence human development, human behavior and response to social phenomena. While, The Health Belief Model (HBM) was propounded in 1950s by Rosenstock proposed that individuals choose to engage or disengage in health-related behaviours because of their belief on perceived susceptibility, severity, benefit and barrier (Becker & Maiman, 1975). Adopting these theories in this study provided holistic understanding on individual utilized mental health services.

4. Methodology

This study employed a qualitative method with narrative design approach and adopted semi-structure interview as a research instrument by focusing on in-depth explorations of informants lived experiences on family factor as an impediment to effective mental health service utilization among behavioral patients. This study was conducted in Benin City with inclusion of population of individuals between the ages of 18 and 65. This study sample size is 14 informants which consisted of 8 mental health outpatients and 6 mental health professionals which was drawn purposively from Federal Neuropsychiatric Hospital, Uselu. Data were collected through interview and data validation was ensured by using member checking method. Ethical approval was obtained from Federal Neuropsychiatric Hospital, Uselu with full informed consent from all the informants. Interviews were conducted in English and were recorded for transcription. The collected data were analyzed manually by using inductive thematic analysis method of Braun and Clarke of 2006 which enable the identification of recurring themes without pre-imposing theoretical frameworks.

5. Result

Theme one: Influence of family belief through the lens of behavioral patients on mental health services utilization

The conducted interviews on examination of the influence of family beliefs on the effective mental health service utilization among behavioral patients in Benin City, Edo State, revealed that all the Informants agreed that the family beliefs play a significant role in influencing mentally challenged individual and people attitudes and behaviors toward mental health and its services and thereby affecting the overall effectiveness of mental health service utilization.

Many of the Informants revealed that their family members often perceived mental health disorders as cultural and spiritual rather than a medical one. It was revealed that mental illnesses are perceived as a bad omen, a curse, divine punishment for wrongdoing, a result of ancestral offense or an affliction caused by spiritual attacks such as witchcraft or demonic possession. These beliefs and cultural interpretations lead families to seek traditional or religious interventions instead of professional medical treatment.

One of the Informants explained that;
"Many of the patients' relative such as parent, believe that orthodox drugs are not effective in treating mental illnesses, so they use alternative method like churches or traditional shrine and this delay early diagnosis and effective treatment…" (IDI Informant; Mental Health Professional).

Another Informant stressed that:
"Yes, what my parent belief about mental disorder affected my treatment. I would have been better than this if my parent brought me to the hospital for the first time, I have this problem" (IDI Informant; Mental Health Professional).

Similar response also shared by one of the Informants, that:
"I belief that if I was brought to the hospital at the right time, things would have been better but my family members didn't agree with my husband to bring me to hospital. They said my problem can be effectively cured spiritually. So, they took me to different places before I was brought to the hospital when the situation became too serious" (IDI Informant; Mental Health Outpatient).

Also, another Informant narrated that:
"In my place, people believe that mental illness is caused by evil forces or punishment from ancestors. That is why my family delayed taking me to the hospital. They first tried some traditional methods

before I was finally brought here" (IDI Informant; Mental Health Outpatient).

Another Informant also stated that:
"The family members' beliefs on mental health disorder greatly affect not only patients but our intervention. Many of mentally challenged persons don't visit hospital to received effective treatment especially those that think that mental illness is a bad omen and spiritual attack, so they preferred herbalist method or Church and these affect their recovery. Most patients were brought after it has gotten out of hand" and those who came for treatment, stop after coming for few times" (IDI Informant; Mental Health Professional).

It was also revealed that these beliefs and actions are not only leading to traumatizing event but also delayed the access to mental health services, disruption of treatment, affect effective rehabilitation and reintegration.
One of the Informants stated that:
"this belief is still following me even after treatment because people in my area even some of my family members are still seeing me as the person with spiritual problem after I was discharged. So, this is affecting me to continue with my normal life and my relation with others" (IDI Informant; Mental Health Outpatient).

Mental Health Professionals revealed that family beliefs greatly affect mental health services utilization and those beliefs lead to discontinuity of the treatment, stigmatization, social exclusion and denial of mental health conditions as medical realities as well as hinder early intervention, reduce treatment adherence and negatively impact recovery outcomes. It was further revealed that in most cases, patients are only brought to the hospital after traditional or spiritual efforts have failed and by that time the condition may have worsened.

One of the Informants explained that:
"Most relatives of the mentally challenged person belief that mental health problems can only be cured in a diabolical way and this belief has cause majority of mentally challenged persons to have lost their lives untimely due to inhumane treatment from the herbalists and lock up in a room" (IDI Informant; Mental Health Professional).

Another Informant explained that:
"family perception of mental illness as a spiritual or moral problem contributes to poor treatment adherence. Some patients stop taking their medication once they begin to feel slightly better, especially if relative convinces them the illness is not medical. This breaks the treatment process and affects recovery" (IDI Informant; Mental Health Professional).

Another Informant explained that:
"many people rely on traditional remedies and this delays access to mental health service such as clinical and early diagnosis and treatment until the condition is worse and some could not complete their treatment due to family belief of the causes of mental health problem and trust in native doctors, herbalists or spiritual leaders. There is patient who was brought to this facility so after two weeks of admission, his father said they want to leave and take the patient away because they consulted a native doctor who told them that the boy is being spiritually attacked because of his grandfather's sin. The native doctor told them that they should not allow the boy to take the prescribe medications because the moment the boy takes the medication, the boy will not be cured forever. So, they took the boy a way and unfortunately the boy was brought back after a month in a very devastating condition" (IDI Informant; Mental Health Professional).

Also, one of the Informants said that:
"the beliefs of my patients' family delay early intervention and make our work more challenging. In many cases, I have treated patients after other options like traditional healing or spiritual intervention have failed and by the time they arrive at the hospital, their symptoms are already severe and worse" (IDI Informant; Mental Health Professional).
Theme Two: Family Financial Capability and Mental Health Services Utilization

The findings from the interview sessions which was conducted to explore the influence of financial capability of the family on effective mental health service utilization among behavioural patients in Benin City, Edo State, revealed that the prevailing level of poverty in the family has a substantial negative impact on the quality and accessibility of mental health services.

One of the Informants said that:
"To be sincere, the treatment is expensive. My husband suffered a lot before he could raise admission money and after the discharge, coming to the hospital for check-up is not easy at all because of transport and medication money and anytime I visited for check-up I must buy drug and my place is also far to this hospital. Within 3-4 months my husband has spent close to 100 thousand for my drugs" (IDI Informant III; Mental Health Outpatient; 16/06/2025).
Another Informant expressed that:
"At the beginning, my family member took me to a prayer house because we couldn't afford hospital bills. They prayed and did some spiritual work for me. It was only when I wasn't getting better that they managed to bring me here. If we had money, maybe I would have started treatment earlier" (IDI

Informant VII; Mental Health Outpatient; 17/06/2025)

All the Informants shared that mentally challenged individuals face immense challenges in affording mental health services such as medications which are expensive and require long-term or even lifelong adherence. Informants shared that this financial hardship or burden discourages continued treatment, irregular and non-compliance with medication use, relapses, and treatment abandonment completely in most cases.

One of the Informants said that:
"The drugs they gave me are too expensive, and I and my family don't have a steady source of income. Sometimes I manage to buy, and other times I just stop taking them. It's not that I don't want to follow treatment, but my family can't afford it all the time" (IDI Informant; Mental Health Outpatient).

Similarly, one of the Informant narrated that:
"I buy my drug by myself. No family support, even if they are willing to help me, they don't have the capacity. so, I refused to buy my drug when it finishes until I had relapse because the cost of medication is affecting me a lot. It is so expensive and the money that I suppose to be using for other things are now being use for medication" (IDI Informant; Mental Health Outpatient).

Another Informant explained that:
"one of my drugs that I bought N200 around end of the year 2023 is now N1, 200 and this drug only lasted for a week plus transportation money to this hospital. The cost of medication is expensive for me and these has made me not getting medications at the right time and meeting up with my check-up date. Most times, I took break in my medication when my drugs finish and my family don't have the money to assist to buy my drugs or visit hospital for check-up" (IDI Informant; Mental Health Outpatient).

Another Informant said that:
"When I was discharged, I was told to continue coming for check-ups and to keep using the drugs but I couldn't keep up with check-up and medication because my family struggled to pay my admission fee and medication. They were drained already. I stopped coming for a while because I felt there was no point if I can't afford the medications" (IDI Informant; Mental Health Outpatient)

More so, one of the Informants expressed that:
"I try my best, but the drugs are expensive and I need to use them for a long time. Sometimes, when there's no money, I stay without it and then my condition starts again. That's why I've been in and out of the hospital more than once" (IDI Informant; Mental Health Outpatient).

An Informant further stressed that:
"My family said going to hospital would cost too much, so we tried traditional medicine first. They said it was cheaper and could work but my condition didn't improve. After wasting money there, we still ended up at the hospital" (IDI Informant; Mental Health Outpatient).
Also, Health professional Informants shared that some indigent patients often resort to traditional healers or spiritual houses due to the unaffordability of professional mental health services.

One of the Informants said that:
"Financial capacity on its own is one of the major causes of mental health disorder in entire Nigeria and apart from this causes, mental health treatment is very cost especially for low-income earners. So, due to this, people prioritize their need. It is only when their problem is getting worse that they will come to the hospital for help and those that came, their financial instability led to interruptions in medication, therapy, follow-up care and then resulting in relapse and worsening symptoms" (IDI Informant; Mental Health Professional).

Another Informant said that:
"The cost of medication is quite expensive. I prescribed a medication to patient's relative but unfortunately, they reported that the drug was N40,000 and they could not afford it on a monthly basis. Actually, the drug will last for a month and patient will use this drug for long time. So, unfortunately since they left that day, I have not set my eyes on the patient again for check-up and treatment. So, this financial instability issue affects mental health service utilization to this extent that People living in poverty often cannot afford transportation to mental health facilities, consultation fees, or medication costs. As a result, many do not seek or continue care" (IDI Informant; Mental Health Professional).

Another Informant also said that;
"Mental health services are expensive and due to Nigerian economy situation, most families and patients don't have the financial capacity for mental health treatment. So, because of that, people shine away from seeking professional help while some outpatients stop coming for check-up and also stop using orthodox medicine for alternative method like shrines and churches" (IDI Informant; Mental Health Professional).

One of the Informants also said that;
"It is very expensive to treat mental health problem. For instance, the admission fees in this psychiatric hospital is N420,000 which lasted for 30 days and many people are not capable to pay. So, this make people to run away from been admitted and prefer

traditional home for treatment" (IDI Informant; Mental Health Professional).

Similarly, one of the Informant narrated that:
"I often see patients that it is only after they've exhausted traditional or spiritual options because they belief that those are more less expensive. The high cost of mental health services, especially medications and follow-ups make many of indigent patients and family run away from formal care" (IDI Informant; Mental Health Professional).

In contrary to the above responses, one of the Informants said that;
"Many of the mentally challenge person thought that mental health services are expensive but it is not. It is actually affordable, there is cheap and expensive medications but the expensive one I can say, it starts from N20,000 upward on a monthly basis" (IDI Informant; Mental Health Professional).

6. Discussion

This study investigated the family factor as an impediment to effective mental health services utilization among behavioral patients in Benin City by assessed the influence of family belief and financial capability on mental health services utilization. The finding revealed that family members attribute mental health illnesses attributed to curses, witchcraft or divine punishment which consequently affected the effectiveness of mental health service utilization as this belief contributed to delay in seeking professional treatment as mentally challenged individuals first seek help from religious or traditional healers. Daliri et al. (2024), a qualitative study conducted in the Bolgatanga Municipality of Ghana which examined the perspectives of family caregivers, mental health service providers, and administrators regarding the impediments to accessing mental health care, identified five broad themes of barriers: individual-level, interpersonal, community-level, organizational, and policy-level obstacles. In particular relevance to this present study's finding are the interpersonal barriers, which Deliri et al (2024) centered on family dynamics. Families were found to exert considerable pressure on decision-making processes regarding mental health treatment which is often influenced by entrenched cultural and spiritual beliefs. For instance, mental health conditions were frequently interpreted within a spiritual or moral framework, discouraging formal treatment and instead promoting traditional or faith-based interventions. Thus, this family belief system shaped the help-seeking behaviour and significantly limited the uptake or utilization of biomedical mental health services.

Additionally, a cross-sectional study conducted by Aass et al., (2022) in Norway which examined patients' and family members' perceptions of family support from nurses and other mental healthcare professionals, as well as the perceived quality of care within community mental health services, found a significant difference in perceptions between patients and their family members. The study concluded that while patients may feel adequately cared for, their family caregivers often feel unprepared, unsupported and excluded from the care process due to family belief.

Also, this study finding show that financial capability was another factor that influence the effectiveness of mental health services utilization. This study revealed that the cost of mental health services such as medication and hospital admission as well as transportation to the hospital facilities for treatment posed a significant challenge to utilization of mental health services and seeking of professional treatment. Therefore, this finding shows that the cost of mental health services has chase away many of the mentally challenged patients, stop their medications, non-compliance to medications, not meeting up with their check-up date, delay diagnosis and treatment, worsen the condition and leading to relapses. A study investigated by Ajefu, Demir and Haghpanahan, (2020) on the impact of financial inclusion on mental health among household heads in Nigeria, established a strong positive relationship between financial inclusion and improved mental health outcomes and utilization. More so, Ajefu, Demir and Haghpanahan, (2020) noted that families that are financially excluded lack the resources to seek timely and sustained mental health care, which results in worsening conditions and increased burden on caregivers. This is further arguing that economic barriers, such as lack of financial stability within families, constitute a significant impediment to accessing care. When families are unable to meet basic needs, including transportation costs, medication, or consultation fees, mental health services are deprioritized.

Also, it was revealed by Daliri et al. (2024) that financial constraints at the individual level is a major factor which intersected with family-level responsibilities and decisions. Families frequently struggled with the costs of transportation, medication and sustained care and thereby leading to inconsistent treatment and poor compliance and further complicated by stigma and mental health illiteracy, as families feared social exclusion and discrimination, thereby choosing to hide or deny the condition rather than seek help.

7. Conclusion and Recommendations

This study has investigated the family factor as an impediment to effective mental health services utilization among behavioural patients in Benin City, Edo State, Nigeria. Through the narratives of mental health outpatients and professionals, it is therefore concluded that family belief and family financial capability negatively influence effectiveness of mental health services utilization among behavioral patients and thereby resulted to; discouragement of individuals from seeking care, adhering to treatment and reintegrating socially; prompting individuals to seek help from traditional and religious institutions before turning to hospitals which thereby delaying appropriate care; the high cost of treatment, medication and transportation often leads to treatment discontinuation and relapse.

Based on the conclusion, this study therefore recommended that; Firstly, considering the negative influence of family beliefs on effective mental health services utilization, there is an urgent need for sustained mental health education and advocacy that is culturally sensitive and community-driven. This can be achieved through engagement and education on biomedical treatment and promote professional psychiatric care over traditional or spiritual alternatives.

Secondly, in light of family financial capability being a significant impediment, the Government, through the Ministry of Health and Welfare, should subsidize mental health treatments and provide free or affordable medications in public psychiatric institutions. More so, social welfare programmes should be extended to low-income families with mental health patients to reduce the financial burden associated with treatment, transportation and caregiving.

References

Aass, L. K., Høie, M., & Lien, L. (2022). Family support and quality of community mental health care: Perspectives from families living with mental illness. *Journal of Clinical Nursing, 31*(5–6), 935–948.

Ajefu, J. B., Demir, A., & Haghpanahan, H. (2020). The impact of financial inclusion on mental health. *SSM - Population Health, 11*, 100630.

Bitta, M. A., Kariuki, S. M., Chengo, E., & Newton, C. R. (2017). An overview of mental health care system in Kilifi, Kenya: Results from an initial assessment using the World Health Organization's Assessment Instrument for Mental Health Systems. *International Journal of Mental Health Systems, 11*(1), 28.

Daliri, F., Bugri, J. T., Akologo, J. W., & Anyorikeya, R. (2024). Exploring the barriers to mental health service utilization in the Bolgatanga Municipality: The perspectives of family caregivers, service providers, and mental health administrators. *BMC Health Services Research, 24*, 278.

Desjarlasi, P. (2015). An adaptation and extension of the Attitudes Toward Seeking Professional Psychological Help Scale. *Journal of Applied Social Psychology, 34*(11), 2410–2435.

Hinton, L., Kohrt, B. A., & Kleinman, A. (2019). Engaging families to advance global mental health intervention research. *The Lancet Psychiatry, 6*(5), 365–367.

Hosseini, S. A., O'Leary, D., & Lee, A. (2021). The role of family support in managing mental health conditions: A cross-cultural analysis. *Journal of Mental Health, 30*(2), 211–218.

Husmiati, H., Setiawan, H., & Fauzi, R. (2022). Family support and mental health. *Asian Journal of Social Work, 6*(1), 51–66.

Ibrahim, A. T., & Olumide, R. A. (2023). Poverty and health inequality in Nigeria: A multidimensional analysis. *Nigerian Journal of Economic and Social Studies, 65*(2), 111–128.

Idemudia, S. E. (2017). *Tradotherapy and psychotherapy in Africa*. University Press.

Keynejad, R. C., Dua, T., Barbui, C., & Thornicroft, G. (2018). WHO Mental Health Gap Action Programme (mhGAP) intervention guide: A systematic review of evidence from low and middle-income countries. *BMJ Mental Health, 21*(1), 30–34.

Khan, C., & Khan, K. (2011). Social beliefs as determinants of attitudes toward seeking professional psychological help among ethnically diverse university students. *Canadian Journal of Counselling, 40*, 224–241.

Ngatia, L., Kariuki, M., & Njonge, T. (2016). Influence of beliefs held by caregivers on help-seeking behaviour in the treatment of mental health patients among mentally ill patients in Nakuru Municipality Kenya. *Journal of Computer Engineering, 18*(1), 37–42.

Nsereko, J. R. (2011). Stakeholders' perceptions of help-seeking behaviour among people with mental health problems in Uganda. *International Journal of Mental Health Systems, 15*, 5.

Omorogiuwa, T. B. E., & Azorondu, A. A. (2024). Resilience in the face of family dysfunction: Coping mechanisms among children in Ikenne Local Government

Area, Ogun State. *African Journal of Social and Behavioural Sciences, 14*(5), 1954–1967.

Omorogiuwa, T. B. E. (2017). The impacts of mental disability: Implications for Social Work Practice. *African Journal of Social Work, 7*(1), 1–8.

Omorogiuwa, T. B. E. (2019). *A Handbook on Physical and Mental Disabilities* (2nd ed.). Mase-Perfect Printing Press.

Pearce, T. O. (2011). Social Organization and Psychosocial Health. In *Clinical Psychology in Africa* (pp. 47–55).

Ritchie, H., & Roser, M. (2018). Alcohol consumption. *Our World In Data*. https://ourworldindata.org/alcohol-consumption

Shajani, Z., & Snell, D. (2019). *Wright & Leahey's nurses and families: A guide to family assessment and intervention*. F. A. Davis.

Sundberg-Kletthagen, H., Wangensteen, S., Hall-Lord, M. L., & Hedelin, B. (2014). Relatives of patients with depression: Experiences of everyday life. *Scandinavian Journal of Caring Sciences, 28*(3), 564–571.

World Health Organization. (2020). *Mental health atlas 2020: Review of the Eastern Mediterranean Region*. https://www.who.int/publications/i/item/9789240036703

World Health Organization. (2022). *Mental health: Strengthening our response*. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 91–96

Koro-like Syndrome beyond Asia: Case Report of a Female from Jos, Nigeria

DAUDA AKWAI SALEH, AUGUSTINE JAMES LEKWAI,
RUTH EMIBARSA MORRIS, BENMUN DAVID PAUL,
JEROME NANJUL ZWANDOR, HONAAN ANDREA DANIANG
Plateau State University, Bokkos, Nigeria

Abstract. Koro is a culture-bound syndrome characterized by acute anxiety and the belief that one's genitalia is retracting into the body, which may lead to death. The syndrome is a culture-bound disorder commonly reported among men in Asia, Koro-like presentations have also been documented globally, with few cases involving women. This paper presents a case report of a 22-year-old single female in Jos, Nigeria, who experienced sudden anxiety and perceived genital disappearance after an encounter with a stranger. Examination of the genitalia by one of the researchers revealed that the genitalia were intact, psychological first aid was provided. Further medical evaluation confirmed that her genitalia were intact. The case is discussed within the framework of anxiety and delusional disorder theories, including the four-factor theory of anxiety, and two-factor theory of delusion, with emphasis on sociocultural influences, observational learning, and cognitive bias. This report underscores the importance of differentiating between culture-bound syndromes and medically verifiable genital pathology, highlights the role of psychoeducation in dispelling harmful beliefs, and calls for public awareness to prevent mob violence against alleged perpetrators of "genital theft." The findings contribute to cross-cultural psychiatric literature by documenting a rare presentation of Koro-like syndrome in a Nigerian female.

Keywords: Koro-like Syndrome, Asia, Case Report, Female, Jos, Nigeria

1. Introduction

Koro is a culture-bound syndrome characterized by intense anxiety and the fixed false belief that the external genitalia commonly the penis in males and, less frequently, the nipples or vulva in females are retracting into the body, or disappear, which may lead to death. Despite the absence of any anatomical changes or medical evidence, affected individuals often experience significant distress and may engage in various physical measures to prevent the perceived retraction. Koro has been historically described in Southeast Asia as a culture-bound disorder. Cases have been documented in Africa, including Nigeria. In the Nigerian context, Koro cases are sometimes reported in association with rumors of "genital theft" or "spiritual attack," leading to community panic and, in some instances, mob violence against alleged perpetrators. Such beliefs and reactions highlight the interplay between cultural narratives, psychopathology, and social behavior. Given its potential for public disorder and its psychological impact on individuals, understanding Koro within both local and global perspectives is essential for effective mental health intervention and public education.

According to Kar, et al., (2022) Koro is a culture-bound syndrome which mostly affects men in places like South Asia, Africa, and China. Similarly, Diagnostic and Statistical Manual of Mental Disorders, DSM (2013) define Koro as a disorder characterized by different symptoms such as the belief that man's penis has retracts into his stomach, the fear of death and anxiety. Other factors that can cause this disorder are sexual practices, sexual myths, and feeling of sexual inadequacy. The disorder relates to cultural factors; cases of Koro are under reported, however few chronic cases has been reported which required intensive intervention. This is usually called the Koro-like condition because the person develops a delusion associated with a relapse of the psychiatric disorder (Ellepola, 2021). Over the years, Koro has changed from a sickness specific to one culture to a pathology that affects people all across the world (World Health Organization 2016; American Psychiatric Association, 2013). Koro is having strong feeling of anxiety that the penis, or

vulva and nipples recede into the body which cause death (Halgin & Whitbourne, 2000).

Koro is a word gotten from Malay culture it refers to the appearance of a turtle when it retracts its head inside the shell. The diagnosis of Koro has been an issue of debate for many years. Previously, the disorder is geographically assigned as a culture-bound which is localized to countries such as China, Japan and Southeast Asia. The first known reported case was in Guangdong, China in 1865, cases were also reported in Indonesia in 1880s (Chowdhury, 1996), in 1967 similar case was reported as Singaporean Koro epidemic (Chaing, 2015). Symptoms of the Koro include, fear that the penis, breast, nipples, and labia shrink, retracts or disappear into the abdomen, which leaves victims with the fear that they will die (Diagnostic and Statistical Manual of Mental Disorders, 2013). Among the Afro-Asian cultures, one's genital is the symbol of stamina, strength, and power. Therefore, shrinkage of genital or its disappearance is seen as loss of power (Kar et al., 2021). The anxiety that comes with the beliefs that the genital would shrink and withdraw into the stomach, ultimately causing death, characterizes this dysphoria. The illness has been regarded as an endemic in Southeast Asia, but it also occasionally manifests itself elsewhere in the world (Ima, & Effendy, 2023). In some cultures, penis shrinking is believed to cause infertility and impotence (Mattelaer & Jilek, 2007).

In Koro, body image dysphoria is characterized by severe anxiety related to the delusional idea that one's genitals will shrink and retract into one's abdomen (Stip, et al., 2021). Koro presents as a culturally related belief that the sex organ shrinks into the body, the condition correlates with moderate and severe anxiety. Mostly, cases of Koro are self-limiting and it affects the individual's quality of life, and self-esteem (Strong, et al., 2023). Outside Asia, Chowdhurya and Chawla (2019) reported that cases of Koro among men has been reported in different European countries such as France, Greece, Britain, Hungary, Czech Republic, Germany, Hungary, Ireland, Italy, Portugal, Spain, Poland and Turkey. One case in a female was reported in Hungary, with another case in a Caucasian woman. According to Ayodeji, et al., (2022) Koro is mostly reported as endemic among Southeast Asia, especially among Chinese. Koro is characterized by anxiety as the result of fear retraction of the genital which is mostly observed in men (Shukla, et al., 2025).

Koro is a socially-transmitted delusion; men with prior knowledge of Koro may likely experience the disorder. Factors that contribute to cases of Koro include, sociocultural such as culture deference, inadequate formal education, spreading of rumors, and through the media. In relation to socially-transmitted delusion, two-factor theory of delusion can be applied for better understanding of delusions that are reported in epidemic form (Coltheart, & Davies, 2024). The disorder is described as pathological distortion of a person's sex organ, which is characterized by severe anxiety that is similar with the delusion that the sex organ with retract and shrink into the person's abdomen (Stip, et al., 2021). Despite lack of physical changes to an individual's sex organ, people that experience Koro, belief that their sex organ disappeared, the condition is basically characterized by an individual's acute anxiety (Kar, 2005). Sometimes Koro belief is abandoned based on knowledge provided (Coltheart, & Davies, 2024). According to Rizvi (2024) among women only three cases of Koro was documented. Furthermore, Rizvi (2024) reported the first case on koro-like syndrome in an adolescent girl. Also, cases of Koro have been reported among women, especially at an early age (Shukla, et al., 2025).

1.1 Statement of Problem

Globally, cases of Koro-like syndrome have not been scientifically proven that individuals who claim that their genitals have been stolen where found to be true. Despite the fact that Koro-like syndrome is a global health concern, in Nigeria for example, "genital theft" is mostly, attributed to rituals or witchcraft, that explains why in most cases people accused of stealing someone's genital ends up facing mob action, beaten and even killed in some instances. It implies that most Nigerian's are not properly informed or they don't have knowledge of Koro as a culture bound syndrome, anxiety or delusional related disorder. Therefore, the problem identified in this study is to report a Koro-like syndrome in a female in Jos, Nigeria. There is poor knowledge of Koro and increase in cases of genital theft in Nigeria. Thus, this case report study is aimed at reporting a Koro-like syndrome in a female which will serve as a evidence based reference material for creating awareness and information on Koro.

1.2 Method

1.2.1 Design/participant

This study utilized a single case design of short research communication. A 22-year-old single lady who resides in Jos Nigeria participated in this study.

1.2.2 Ethical consideration

Participation in this study is strictly voluntary, participant consent to participate in this study after experiencing a Koro-like syndrome. Participant's confidentiality was assured that all information she provides is strictly for research purpose, also the

study poses no danger to her in anyway. Psychological first aid and brief psychoeducation on Koro was provided to the participant during debriefing.

1.3 Limitation of the Study

This study is limited considering that the study is a single case design, although case of Koro-like syndrome is rare especially among women. Thus, this may affect generalization of the study outcome.

1.4 Implication of the Study

The findings of this study have several significant implications; in relation to practice, it serves as an evidence-based guide to clinical psychologists, psychiatrists, medical social workers and other mental health practitioners. Furthermore, outcome of the study serves as an evidence-based awareness to the general public on Koro-like syndrome in a female. The study also contributes to the body of empirical literature on Koro-like syndrome among women.

2. Cases of Koro-like syndrome in Nigeria

In Nigeria, few cases of Koro were reported, for example; Ayodeji, et al., (2022) reported the case of Koro in a 37-year-old man in Port Harcourt. Several cases of penis theft or loss are reported in Nigeria, the cases are mostly related to shaking hands with a stranger, or touch (Ilechukwu, 1992). In six communities of Osun state, 12 people were killed by mob; the 12 people killed were accused of making people's penis to disappear. However, the police dismissed the claims (Dan-Ali, 2001). Willie (2020) reported a case in Bayelsa state, where a man was almost killed due to false alarm of penis theft. According to Adejoro (2023) the incidents of false disappearance of penis in Nigeria has led to panic attacks, the Police command in Abuja alone reported 62 cases of alleged disappearance of penis. In Nigeria penis disappearance is mostly believed that it's for ritual reasons. However, it may be due to Koro syndrome which is a health condition, the disorder is manifest often due to increase anxiety, stress and social unrest, people that experience significant relationship challenges, life changes, or pressure from the society are more prone to experience Koro. The case of missing genitals is an unproven claim, which is widely spreading and mob action is always unleash on individuals accused of genital theft. A woman in Abuja was accused by two men for magically stealing their penis. However, there was no video or photographic evidence to support the men's claims, security operative rescued the woman and the men were arrested for false claims. Similarly, in Delta state a man accused a 68-year-old widow of stealing his penis after physically touching him, but after police investigation, the police reported through their Public Relation Officer that the man's penis was intact (Ayeni, 2023).

Salami, (2025) reported a case of penis shrinking involving a man who accused policemen of stealing his penis after interrogation, but after a doctor's physical examination, the man's penis was intact. The man reported that when he left the police station, "*I opened my trousers and checked, but I was scared because it appeared to be shrinking and very small. Later I realized it was my panic that caused it*." Recently in Jos, Nigeria according to Pam (2025), a woman was alleged for stealing male genitals through mysterious means, the alarm was raised shortly after some group of men helped the woman, one of the men claimed that his manhood had mysteriously disappeared when he reached home. It was reported that the woman had a pending case involving similar allegation. Several factors are identified in relation to the case of Koro in West Africa. These factors include religious doctrine, cultural belief, mental condition, psychosocial factors and strong belief in the power of voodoo, furthermore in Nigeria; people believe that genital theft is for ritual purposes (Okechukwu, 2021). Similarly, Stip, et al., (2021) states that cultural beliefs play a vital role in the origin and spread of Koro in Asian countries. Cases of mystical disappearance and theft of the penis have been reported in West Africa, in most cases in Nigeria for example, people allege to have stolen someone's penis are beaten or even killed (Dzokoto, & Adams, 2005).

3. Theoretical Review

Theoretically, several theories can explain Koro in relation to anxiety and or delusion. The four-factor theory of anxiety posit that, the following source of information; person's behavior, person's physiology, environmental threat and a person's negative future-oriented cognition are determinants of anxiety (Eysenck, & Eysenck, 2007). Based on learning theory anxiety can occur as the result of observational learning, someone may learn fear through observational learning by observing other people's fear. Also, anxiety is seen as the result of fear conditioning, reinforcement and stimulus generalization (Myers, 2002). In relation to delusion, two-factor theory of delusion posit that; people usually adopt belief that is unusual due to neuropsychological deficit that manifest as the result of the individual's experience. The second factor explains that when there is cognitive deficit in someone's evaluation of belief it leads the individual to adopt a belief which is unusual in the face of counter evidence or low prior probability (Coltheart, et al., 2010; McKay, 2012). Delusion is seen as a dysfunctional belief (McKay et al. 2005). Coltheart,

et al., (2010) sees delusion as pathological due to cognitive dysfunction. In contrast McKay, (2012) states that delusion is not pathological but it's due to cognitive bias. In anxious situation, a person experiences the feeling that something extremely bad will happen which the person doesn't have the power to change it. These feelings make the person to focus on his or her inner concerns, the person becomes hyper vigilant and watchful based on the possibility of danger (Halgin & Whitbourne, 2000).

4. Summary Case Report of Koro-like Syndrome

The incidence of Koro like-syndrome happened in a community in Jos North local government area of Plateau state, Nigeria, involving a 22-year-old single female. She explains that while walking on a narrow road connecting two communities, she met with a middle-aged man whom she doesn't know, when she greeted the man, he did not respond but she noticed that his hand was stretching towards her genital area. When that happened, that she felt empty and suddenly began to shout "thief" but she could not get any help until when a woman dressed in white who was coming behind her shouted thief that was when people started coming out to her rescue, the man in question was beaten by angry mob and later rescued by the police. According to the lady considering that she felt empty she believed that he stole her genitalia. From that moment she could not remember anything she only saw herself in the hospital. However, one of the researchers was call upon when the incident happened, in the presence of three other ladies, examination of the external genitalia was conducted and the genitalia were found intact. Brief psychological first and psychoeducation on Koro was provided after which the lady was taken to a hospital for further examination, where physical examination of the genitalia was also conducted and the doctor confirmed that the genitalia was intact.

5. Discussion

This study aimed at reporting a Koro-like syndrome in a female, serves as evidence-based information on Koro, which is in conformity with earlier studies on Koro. Cases of Koro is mostly reported among men with few cases among women for example, Riziv (2024) reported that only 3 cases of Koro were documented among women. Also, Chowdhurya and Chawla, (2019) reported a Koro-like case in a Caucasian woman. According to American Psychiatric Association (2013), symptoms of Koro include, fear of disappearance of the breast, nipples, penis, and labia shrinking. Genital disappearance and shrinking is seen as loss of power among Afro-Asian cultures considering that the genital is seen as a symbol of power, strength and stamina (Kar, et al., 2021). Most, researchers opined that Koro is basically an anxiety and delusional related disorder, which has to do with the fear that one's genitalia retracts into the abdomen (Kar, 2005; Stip, et al., 2021; Ayodeji, et al., 2022; Ima, & Effendy, 2023; Shukla, et al., 2025). In this study, the Koro-like syndrome possibly happened in the victim due to fear, considering that the victim was alone with the middle-age man who is completely a stranger to her in a narrow road, the man stretching his hands towards her genital area aggravate the situation which made the victim felt empty. In line with four-factor theory of anxiety, environmental threat (Eysenck & Eysenck, 2007) played a vital role which made the victim felt her life is in danger. Also, Halgin and Whitbourne (2000) explained that in anxious state, an individual becomes hyper vigilant and watchful due to possible danger. This also confirms the position of learning theory; according to Myers (2002) anxiety occur as the result of fear and observational learning through observing other people's fear. This implies that prior knowledge on "genital theft" in the society easily made the victim conclude that her genital is stolen.

People who experience Koro strongly believe that their genital is stolen, missing disappear or retracts, which is basically based on the individual's anxiety (Kar, 2005). Coltheart, and Davies, (2024) reported that sometimes those that believe their genital disappeared abandon such believe when they are provided with knowledge. According to Myers (2002) anxiety can occur due to fear that is learnt through observational learning by observing other people's fear. This implies that in line with observational learning, people that experience Koro, may experience the fear of their genitalia disappearing, stolen or shrinks due to negative information they heard about other people's disappearing genitalia. Similarly, two factor theory of delusion centers on individual's experience (Coltheart, et al., 2010; McKay, 2012). Stealing someone's genital (Koro-like syndrome) has not been scientifically proven; the genital is always intact but the victim's anxiety and or delusion make the person believe that his or her genital is missing.

6. Conclusion

This case report underscores the importance of differentiating between culture-bound syndromes and medically verifiable genital pathology, highlights the role of psychoeducation in dispelling harmful beliefs, and calls for public awareness to prevent mob violence against alleged perpetrators of "genital theft." The findings contribute to cross-cultural psychiatric literature by documenting a rare presentation of Koro-like syndrome in a Nigerian female. This confirms that Koro is beyond Asia and not just a male experience. Thus, there is need to

enlighten community leaders, spiritual leaders and the general public on Koro-like syndrome.

7. Recommendations

Thus, authors recommend the need for psychoeducation on Koro-like syndrome, mental health practitioners should psycho-educate the general public utilizing different media platforms and or the social media space. In the event of Koro-like syndrome either in male or female, people should avoid "jungle justice" and "mob action" rather, the victim's genitalia should be examined to confirm his or her claim or the matter should be handed over to security operatives for further investigation. Finally, there is need for psychological first aid, insight orientation therapy and psychoeducation to victims of Koro-like syndrome, which will enable them understand exactly what happened to them.

References

Adejoro, L. (2023). Koro syndrome: what to know about genital shrinkage. Punch e-paper retrieved from https://punchng.com/koro-syndrome-what-to-know-about-genital-shrinkage/ retrieved 6th August, 2025

American Psychiatric Association (2013). DSM-5 diagnostic classification. In: diagnostic and Statistical Manual of Mental Disorders.

Ayeni, V. (2023). Missing genitals controversy rages, experts dismiss claims, jungle justice accused persons. Punch e-paper retrieved from https://punchng.com/missing-genitals-controversy-rages-experts-dismiss-claims-jungle-justice-for-accused-persons/ retrieved 6th August, 2025

Ayodeji, A. O., Ijah, R. F., & Luba, N. J. (2022). Case Report on koro-like syndrome in a private specialist hospital in Port Harcourt, Nigeria.*The Nigerian Health Journal*, *22*(3). 321-324

Chiang, H. (2015). Translating culture and psychiatry across the Pacific: How koro became culture bound. *History of Science. 53*: 102-119.

Chowdhury, A. N (1996). The definition and classification of Koro. Culture, medicine and psychiatry. 20: 41-65

Chowdhurya., A. N., & Chawla, M. (2019). Koro in female: A case report and a mini review. *The European Journal of Psychiatry, 33*(4), 182-185

Coltheart, M., & Davies, M. (2024). Koro: A socially-transmitted delusional belief. *Cognitive Neuropsychiatry*, 29, 10–28.

Coltheart, M., Menzies, P., & Sutton, J. (2010). Abductive inference and delusional belief. *Cognitive Neuropsychiatry, 15*(1-3), 261-287.

Dan-Ali, M. (2001). Missing penis sparks mob lynching. BBC News Online. Retrieved from http://news.bbc.co.uk/2/hi/africa/1274235.stm retrieved 5th August, 2025.

Dzokoto, V. A., & Adams, G. (2005). Understanding genital-shrinking epidemics in West Africa: Koro, juju, or mass psychogenic illness? *Cult Med Psychiatry,* 29, 53–78

Ellepola, A. (2021). Koro, psychological retraction of the genitalia: A case series. 12(December):41–3.

Eysenck, M. W., & Eysenck, W. (2007). Four-factor theory and the anxiety disorders. *Ansiedad y Estrés.* 13(2-3),283-289

Halgin, R. P., & Whitbourne, S. K. (2000). *Abnormal psychology, clinical perspective on psychological disorders.* Third edition. McGraw Hill Companies

Ilechukwu, S. T. (1992). Magical penis loss in Nigeria: Report of a recent epidemic of a koro-like syndrome. *Transcult Psychiatry Res Rev.29*, 91–108

Ima, S. F., & Effendy, E. (2023). Genital retraction syndrome (koro): A case of the culture-bound syndrome in migrant in Indonesia. https://doi.org/10.2991/978-94-6463-120-3_15 retrieved 23/7/2025

Kar, N. (2005). Chronic koro-like symptoms – two case reports. *BMC Psychiatry*. 5(34). doi:10.1186/1471-244x-5-34.

Kar, S., Arafat, S. M. Y., Menon, V., Sharma, P., Das, A., Perera, S., & Shankar, A. (2022). A bibliometric analysis of Koro syndrome. *Global Psychiatry Archives*, *5*(1), 36-41

Kar, S., Singh, A., & Shirahatti, N.B., (2021). Culture-bound syndrome: Chapter 3: Koro, 1st Edition. ed. Official publication of the Indian Psychiatric Society South Zonal Branch.v

Mattelaer, J.J., & Jilek, W., (2007). Koro–the psychological disappearance of the penis. *J. Sex. Med. 4,* 1509–1515. https://doi.org/10.1111/j.1743- 6109.2007.00586.x

McKay, R. (2012). Delusional inference. *Mind & Language,*27(3), 330-355.

McKay, R., Langdon, R., &Coltheart, M. (2005). "Sleights of mind": delusions, defences, and self-deception. *Cognitive Neuropsychiatry* 10(4), 305-326

Myers, D. G. (2002). *Psychology*. Fifth edition. Worth Publishers, 33 Irving Place, New York, NY 10003

Ntouros, E., Ntoumanis, A., Bozikas, V. P., Donias, S., Giouzepas, I., & Garyfalos, G. (2010). Koro-like symptoms in two Greek men.*BMJ Case Rep*. 2010 bcr08.2008.0679

Okechukwu, C. E. (2021). Shrinking and psychological disappearance of the penis asalient psychocultural issue in Nigeria. *Current Medical Issues, 19*(2), 117-118. *DOI:* 10.4103/cmi.cmi_10_21

Pam, B. (2025). Alleged manhood theft caught in Jos after suspected victim raises alarm (video). Retrieved from https://becksblog.com.ng/alleged-manhood-thief-caught-in-jos-after-suspected-victim-raises-alarm-video/ retrieved 6th August, 2025

Rizvi, A., Shaan, F., Reyazuddin, M., Malsawmtluangi, F. N. U., & Agrawal, S. (2024). Koro-like symptoms in an adolescent female with Schizophrenia. *Journal of the American Academy of Child & Adolescent Psychiatry*, 63(2), 99 – 100

Salami, U. (2025). Police detain man for false claims of stolen manhood. Punch e-paper retrieved from https://punchng.com/police-detain-man-for-false-claim-of-stolen-manhood/ retrieved 6th August, 2025

Shukla, R., Chutia, P., &Tripathi, S. M. (2025). Diagnosis and management of Koro-like syndrome in women. *Psychiatry, 18*(3)

Stip, E., Nguyen, J., Bertulies-Esposito, B., Tempier, A., Bedard, M., Paradis, A., & Javaid, S. F. (2021). Classical Koro and Koro-Like Symptoms: Illustration from Canada. *Journal of Psychosexual Health 3*(3) 222–235, DOI: 10.1177/26318318211028845

Strong, Y. N., Cao, D. Y., Zhou, J., Guenther, M. A., Anderson, D. A., Kaye, A. D., Blick, B. E., Anandi, P. R., Patel, H. Y &Urits, I. (2023). Syndrome: epidemiology, psychiatric and physical risk factors, clinical presentation, diagnosis, and treatment options. *Health Psychology Research*, *11*. doi:10.52965/001c.70165

Willie, B. (2020). How mob attacked me over penis theft allegation. Daily trust e-paper Retrieved from https://dailytrust.com/how-mob-attacked-me-over-penis-theft-allegation/ retrieved 5th August, 2025

World Health Organization (2016). International classification of diseases (ICD-10) Version. Who.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 97–104

Knowledge, Attitudes and Acceptability of Cervical Cancer Screening among Public School Teachers in Benin Metropolis

ENOMA OMOROGIEVA IGUDIA, RACHAEL OSARIEMEN OMON-DAVE, WESLEY CHOICE UWADIE
University of Benin, Benin City, Edo State, Nigeria

Abstract. This study was designed to investigate knowledge, attitudes and acceptability of cervical cancer screening among public school teachers in Benin Metropolis. Five research questions were raised to guide the study, while two hypotheses were formulated and tested at 0.05 level of significance. The descriptive survey research design was adopted for the study. The population for this study consisted of all the 2,120 public school teachers in Benin Metropolis. The sample size for the study was381 respondents and was selected through multi-stage sampling technique. A self-structured questionnaire designed by the researchers and validated by three experts in HSE department was used for the study. Two research assistants who were briefed of the purpose of the study assisted the researchers to administer the questionnaire to the respondent, only 361 copies were retrieved successfully after completion. Data collected was analyzed using frequency counts and percentages for the research questions while the inferential statistics of Chi-square was used to test the hypotheses at 0.05 level of significance. The findings from the study showed that most (63.9%) of the public-school teachers in Benin Metropolis had moderate knowledge of cervical cancer screening. Majority (70.9%) of respondents have positive attitudes towards cervical cancer screening and their level of acceptability is also high (60.11%). The study further revealed that knowledge significantly influenced acceptability of cervical cancer screening among public school teachers in Benin metropolis but attitudes did not. Based on the findings of the study, it was recommended among others that government should carryout educational campaigns and increase efforts to enhance knowledge about cervical cancer screening.

Keywords: Knowledge, attitudes, acceptability, cervical cancer screening, Benin Metropolis

1. Introduction

1.1 Background to the study

One of the public health issues affecting women globally is cervical cancer. It is a form of cancer that develops in the cells of the cervix. The cervix is the lower, narrow end of the uterus that connects the uterus to the vagina. Cervical cancer is the most common cancer of the female genital tract and is the most prevalent cause of cancer-related deaths in women. One of the major ways of surviving cervical cancer is through early detection. If cervical cancer is undiagnosed and untreated, it will slowly spread out of the cervix and into the surrounding tissue and organs. The cancer can spread down to the vagina and the surrounding muscles that support the bones of the pelvis. One can have emotional and social effects after a cancer diagnosis which may include dealing with a variety of emotions such as sadness, anxiety, fear, or anger, or managing your stress level. Sometimes people find it difficult to express how they feel to their loved ones.

Cervical cancer is one of the most typical cancers worldwide, with an estimated 604,000 new cases and 342,000 deaths in 2020 (World Health Organization, WHO, 2024). It is a public health problem responsible for increased morbidity and mortality in women. Cervical cancer arises following a human papillomavirus (HPV) persistent infection with oncogenic or high-risk types. According to Nindl and Stockfleth (2020), HPV spreads through sexual contact between mucous membranes of people with the infection. In persistent “high-risk” HPV infections, the virus can damage the deoxyribonucleic acid (DNA) and cause cells to divide and continue growing out of control leading to cancer. The development of cervical cancer is linked to various risk factors, including multiple sexual partners, unprotected sex, and coitus with uncircumcised sexual partners. A study carried

out by the National Centre for Biotechnology in 2001, revealed that uncircumcised men have an increased risk of HPV infection, including oncogenic HPV because of its proximity to the foreskin, which may be particularly vulnerable to infection. The study suggested that the increased risk of multiple HPV infections among uncircumcised men may simply reflect "an enhanced vulnerability of the foreskin to multiple episodes of infection by different HPV types over time." Out of the 379 men that participated in the study, the prevalence of any HPV infection in the glans/corona was significantly higher in uncircumcised men 46% than in circumcised men 29% (Castellsague, et al, 2002). Also, among uncircumcised men, HPV prevalence in the foreskin was considerably higher than was found in circumcised men. The human papillomavirus infection is the principal cause of cervical cancer and is often contracted through sexual contact. Other factors include smoking, prolonged use of combined oral contraceptives, and engaging in early sexual practices which could include both vaginal, anal, and oral sex.

Cervical cancer can be prevented through screening and testing. Cervical cancer screening is a medical screening test designed to identify risk of cervical cancer. It is used to find changes in the cells of the cervix that could lead to cancer. Three types of tests are currently available and are widely used for the screening of cervical cancer. These include tests for HPV, cytology-based Papinocolaou test (Pap test), and unaided Visual Inspection with Acetic acid (VIA) (WHO, 2013).

The main goal of cervical cancer screening programmes is to reduce the mortality rate from an incidence of the disease by identifying females with precancerous lesions and early invasive cancer and treating them appropriately. Precancerous lesions are lesions that have a capacity to progress potentially to invasive cancer if left untreated (International Agency for Research on Cancer IARC, 2005).

Regular screening at different ages is recommended in some countries as a secondary prevention strategy for cervical cancer. From 21years to 29years, it is recommended that women have a Pap smear every 3 years and those within the ages of 30 to 65 years should have Pap smear every 5 years in combination with HPV testing. However, after 65 years, it is recommended that women who have had regular screening can stop screening (Campos et al., 2017).

For cervical cancer screening methods and services to be utilized, women must be aware of their availability and have a basic understanding of the disease. This will increase screening acceptability and as a result, reduce cancer related morbidity and mortality.

Another preventive measure of cervical cancer is vaccination which is one of the most commonly used public health strategies to reduce the risk of infection and minimize the prevalence of the disease-causing agent (HPV) in the environment. Although cervical cancer early screening and treatment can decrease morbidity and mortality, most women including female public-school teachers report to the hospital late and this could partly be explained by a lack of knowledge and poor attitude of women towards cervical cancer screening.

Cervical cancer can be cured if detected early, and if the early warning signs and symptoms are understood which is necessary for early diagnosis. Cervical cancer screening is effective in identifying those that are at risk and if an anomaly has been discovered, a follow-up screening and treatment is delivered to women with the least amount of discomfort. Cervical cancer preventive programs offer services to help women avoid or reduce the risk of developing cervical cancer. For a health program to be implemented at the grass root, state or national levels, it must be feasible or accessible.

Despite the availability of preventive measures of cervical cancer such as cervical cancer screening services, a lot of women do not utilize them and one of the prevalent causes is inadequate knowledge. The knowledge women have about cervical cancer differs from country to country and the devastating impact of cervical cancer on individuals, families, nations and mankind is reduced by increasing literacy among the general public, especially women. Being aware of the disease makes many to develop interest in utilizing screening services and it takes knowledge of cervical cancer, its risk factors and the consequence of not getting screened to promote a favourable attitude towards cervical cancer screening. Knowledge of cervical cancer will empower women to accept appropriate vaccination and screening as means of preventing and controlling the disease.

The attitudes towards cervical cancer screening is also very important in eliminating or reducing cervical cancer. A lot of women may feel it is not important to participate in cervical cancer screening because of the belief that they are not at risk of developing cervical cancer. The poor attitude of some women towards cervical cancer screening including public school teachers may limit their involvement in the screening programme. A number of factors that hindered acceptability of cervical cancer screening include fear of humiliation, pain or the detection of cervical cancer; anxiety as a result

of a negative or abnormal cervical smear result; embarrassment of being screened by male screeners, etc. A previous history of trauma, such as childhood sexual abuse, intimate partner violence, and trauma related to medical procedures, which was reported in a previous study, appeared to induce negative attitudes and function as barriers to cervical cancer screening (Ackerson, 2010). In addition, research has indicated that a favorable attitude towards cervical cancer screening is linked to a woman's degree of education. In a study, Kahesa, et al, (2012), reported that women who had attended at least primary school were more likely to attend screening than women who had never attended school.

The acceptability of cervical cancer screening will be based on the knowledge women have about cervical cancer and their attitude towards screening services after gaining knowledge. The acceptability of cervical cancer screening is poor in many developing countries including Nigeria (Uchendu, Hewitt-Taylor, Turner Wilson & Nwakasi, 2021). Some of the factors that may hinder acceptability of cervical screening include a lack of knowledge about the disease, lack of familiarity with the concept of prevention, the geographical and economic inaccessibility of care, the poor quality of services and lack of support from husbands and families (Uchendu, et al, 2021).

1.2 Statement of the Problem

The importance of cervical cancer screening as a preventive measure of cervical cancer cannot be overemphasized. One will expect every woman who has attained the child bearing age to make full use of cervical cancer screening services in order to live healthily but this is not always the case as reported by Uchendu, et al, (2021), in their study which revealed that the uptake of screening was poor among the general population in Nigeria. Although screening is a known cost-effective strategy used in reducing the burden of cervical cancer worldwide, its uptake particularly in developing countries is still abysmal (Jeronimo, et al, 2014). According to Hawkins, Benard and Greek (2013), if a large number of women participate in cervical cancer screening, cervical cancer mortality will be greatly reduced. Government has made efforts to increase awareness on cervical cancer screening through jingles on television and radio, various print media, and social media handles. The government have also provided free cervical cancer screening services at primary health care centers to curb cervical cancer; but despite the various efforts made by government to increase awareness and to improve the acceptability of cervical cancer screening, cervical cancer screening remains very low. Could the reason for this low uptake be inadequate/low knowledge of cervical cancer and its screening services, or negative or poor attitudes towards screening services? From the researcher's personal observation, there seems to be no empirical work done in this area among public school teachers in Benin Metropolis that is best known to the researcher; therefore, the study seeks to investigate the knowledge, attitudes and acceptability of cervical cancer screening among public school teachers in Benin Metropolis with particular interest in the influence of knowledge and attitudes towards acceptability of cervical cancer screening among public school teachers in Benin Metropolis.

1.3 Research Questions

The following research questions were raised to guide the study:

- What is the level of knowledge of cervical cancer screening among public school teachers in Benin Metropolis?
- What are the attitudes of public-school teachers in Benin Metropolis towards cervical cancer screening?
- What is the level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis?
- Does level of knowledge influence acceptability of cervical cancer screening among public school teachers?
- Does attitude influence the acceptability of cervical cancer screening among public school teachers?

1.4 Hypotheses

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

- Knowledge of cervical cancer screening will not significantly influence its acceptability among public school teachers.
- Attitude towards cervical cancer screening will not significantly influence its acceptability among public school teachers.

1.5 Purpose of the Study

The purpose of this study was to investigate the knowledge, attitudes and acceptability of cervical cancer screening among public school teachers in Benin Metropolis, Edo State.

Specifically, the objectives of the study were to:

- Investigate the knowledge of cervical cancer screening among public school teachers in Benin Metropolis.
- Determine the attitudes of public-school teachers in Benin Metropolis towards cervical cancer screening.
- Determine the level of acceptability of cervical cancer screening among public school teachers.
- Determine if knowledge influences the acceptability of cervical cancer screening among public school teachers.
- Determine if attitude influences the level of acceptability of cervical cancer screening among public school teachers.

2. Research Methodology

The descriptive survey research design was adopted for this study. The design was considered appropriate for this study because it is primarily concerned with the collection of data for the purpose of describing and interpreting existing conditions and prevailing practices using a representative sample of the population. Furthermore, it accurately and systematically describes, observes and validates aspects of groups collected through quantifiable information without manipulation of the variables (Sledlecki, 2020). The design enabled the researcher to investigate the knowledge, attitude and acceptability of cervical cancer screening among public school teachers in Benin Metropolis.

The population of the study consisted of all the 2,120 female public-school teachers in Benin Metropolis (Edo State Ministry of Education, 2023). Benin Metropolis is made up of three Local Government Areas which are; Oredo, Egor and Ikpoba-Okha.

The sample size for this study consisted of 381 respondents who were selected through the multi-stage sampling technique. The stages are:

Stage 1: The stratified random sampling technique was used to stratify the public schools into three clusters that make up the area of study. This includes Oredo, Egor and Ikpoba-Okha public schools.

Stage 2: Simple random sampling technique was used to select 50% from the three strata through balloting with replacement to get a total of 68 public schools out of the 134 public schools in Benin Metropolis.

Stage 3: In this stage, 11 from 22 schools, 14 from 27 schools and 43 from 85 schools were selected from Oredo, Egor and Ikpoba-Okha L.G.A respectively to make up a total of 68 public schools for sampling.

Stage 4: Finally, the systematic sampling technique was used to select 35% of the total number of teachers from each of the previously selected schools to give a total of 381 sampled respondents.

The Instrument that was used in collecting data for this study was a self-structured questionnaire titled: Knowledge, Attitude and Acceptability of Cervical Cancer Screening. The questionnaire consists of four sections, Section A consisted of demographic data of respondents, Section B consisted of 15 multiple choice questions on the knowledge of cervical cancer screening among female public-school teachers in Benin Metropolis, the correctly answered items was scored 1 while incorrect options was scored 0. Section C consisted of 10 items on the attitudes of female public-school teachers in Benin Metropolis towards cervical cancer screening which was structured on a four-point modified Likert rating scale ranging from Strongly Agree (SA) 4, Agree (A) 3, Disagree (D) 2, Strongly Disagree (SD) 1. Section D consisted of 5 items on the acceptability of cervical cancer screening among female public-school teachers in Benin Metropolis and it was structured on a four-point modified Likert rating scale ranging from Strongly Agree (SA) 4, Agree (A) 3, Disagree (D) 2, Strongly Disagree (SD) 1.

The instrument was validated by three experts in the Department of Health, Safety and Environmental Education. They examined the items in terms of relevance, clarity and appropriateness of language. Their corrections, opinions and suggestions were taken into consideration while preparing the final instrument for this study.

The reliability of the instrument was determined by test –retest method of reliability. The instrument was administered twice to twenty (20) public school teachers who were not part of the study within two weeks interval. The scores obtained from both administrations were computed using the Pearson's Product Moment Correlation Coefficient, and a coefficient score of 0.73 was obtained.

The instrument was personally administered by the researchers with the help of two research assistants who helped in the distribution and the retrieval of the questionnaire. The research assistants were properly briefed on the method of data collection to ensure 100% retrieval of the questionnaires.
Data collected were analyzed using descriptive statistics of frequency counts and percentages for the research questions raised, while inferential statistics of chi-square was used to test the formulated hypotheses at 0.05 level of significance.

3. Presentation of Results and Discussion of Findings

This section of the research focuses on presentation of results and discussion of findings. The results are presented in tables and statistical reports with the aim to validate the stated objectives and hypotheses. Thus, the research provides an evaluation on knowledge, attitudes and acceptability of cervical cancer screening among public school teachers in Benin Metropolis, Edo State. In the study 381 questionnaires were administered to the respondents but only 361 were returned successfully. Hence, return rate of 94.70%.

Therefore, the discussion of this work was done based on the research questions as follows:

Research Question One: What is the level of knowledge of cervical cancer screening among public school teachers in Benin Metropolis?

Table 1: Level of knowledge of cervical cancer screening among public school teachers in Benin Metropolis

Knowledge	Frequency	Percent
low	91	25.2
moderate	230	63.7
high	40	11.1
Total	361	100.0

Bench mark: score of 1-7=low knowledge, score of 8-11=moderate knowledge, score of 12-15= High knowledge
The result on the level of knowledge of cervical cancer screening among public school teachers in table one, revealed that 25.2% of the respondent public school teachers have low knowledge of cervical cancer screening, 63.7% of them have moderate knowledge of cervical cancer screening, while 11.1% of them have high knowledge of cervical cancer screening. From the result, it can be clearly seen that the larger proportion of the respondent public school teachers had moderate knowledge of cervical cancer screening while a few of them had high knowledge of cervical cancer screening in Benin Metropolis.

Research Question 2: Attitudes of public-school teachers towards cervical cancer screening in Benin Metropolis

Table 2: Frequency and percentage of public-school teachers towards cervical cancer screening

Attitude	Frequency	Percent
Negative	105	29.1
Positive	256	70.9
Total	361	100.0

Score of 0-5: negative attitude; score of 6-10: positive attitude

In research question 2, the table on attitude of public-school teachers towards cervical cancer screening shows that 70.9% of the respondents have positive attitude towards cervical cancer screening and also 29.1% of the respondent public school teachers were observed to have negative attitude towards cervical cancer screening. This suggests the fact that the respondents have a positive attitude towards cervical cancer screening.

Research Question 3: Acceptability of cervical cancer screening among public school teachers in Benin Metropolis

Table 3a: frequency and percentage on the level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis

S/N	Items	Agree	Disagree
1	I have been screened for cervical cancer	180(49.9%)	181(50.1%)
2	I am willing to be screened for cervical cancer.	356(98.7%)	5(1.3%)
3	I will go for cervical cancer screening often as recommended by WHO	355(98.4%)	6(1.6%)
4	I have been screened for cervical cancer more than once	96(26.8%)	265(73.2%)
5	I will go for cervical cancer screening if a health professional performs the procedure.	304(84.3%)	57(15.7%)

Analysis on level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis shows that 49.9% of the respondents agreed that they have been screened for cervical cancer, while 50.1% have never been screened for cervical cancer. Also, 98.7% are willing to be screened for cervical cancer while 1.3% are not willing to be screened for cervical cancer. Furthermore, 98.4% agreed to go for cervical cancer screening often as recommended by the World Health Organization, while 1.6% disagreed to this. More so, 26.8% have been screened for cervical cancer more than once, while 73.2% have not been screened more than once. Lastly, 84.3% agreed to go for cervical cancer screening if a health professional performs the procedure, while 15.7% do not agree to this. In conclusion from the result above, the level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis is very high.

Table 3b: frequency and percentage level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis

Level of acceptability	Frequency	Percentage
High acceptability	209	60.11
Low acceptability	152	39.89
Total	361	100

Score of 0-2: low acceptability, score of 3-5: high acceptability

The table above on the level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis reveals that 94.8% of the respondents have high acceptability of cervical cancer screening, while 5.2% of the respondents have low acceptability of cervical cancer screening. This implies that the level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis is high.

Hypothesis 1: Knowledge does not significantly influence acceptability of cervical cancer screening among public school teachers in Benin Metropolis

Table 4: Influence of knowledge on acceptability of cervical cancer screening among public school teachers in Benin Metropolis

		Acceptance				
		High	Low	Chi-square	df	Sig.
Knowledge	Low	170	60			
	Moderate	31	60	68.97	2	0.00
	High	8	32			
Total		209	152			

The chi-square test statistics in Table 4 shows that knowledge of cervical cancer screening has a significant influence on the acceptability of cervical cancer screening among public school teachers in Benin Metropolis. From the report of the analysis, since the calculated P-value is less than the adopted significance level of 0.05, (x^2(df=2, N =361, P-value=0.00), then, the stated null hypothesis is rejected. This implies that knowledge of cervical cancer screening has significant influence on acceptability of cervical cancer screening among public school teachers in Benin Metropolis.

Hypothesis 2: attitudes does not significantly influence acceptability of cervical cancer screening among public school teachers in Benin Metropolis

Table 5: Influence of attitudes on acceptability of cervical cancer screening among public school teachers in Benin Metropolis

		Acceptability				
		High	Low	Chi-square	df	Sig.
Attitude	Negative	65	40	0.97	1	0.39
	Positive	144	112			
Total		209	152			

The Table 5 above shows the chi-square test analysis which states that attitude does not influence acceptability of cervical cancer screening among public school teachers in Benin Metropolis. It was discovered that the P-value is greater than the adopted significance level of 0.05 (x^2(df=1, N=361, P-value=0.39). This implies that the null hypothesis that attitude does not significantly influence acceptability of cervical cancer screening among public school teachers in Benin Metropolis is accepted.

4. Discussion of Findings

The findings of this study reveal that a significant proportion of public-school teachers in Benin Metropolis possess only a moderate level of knowledge about cervical cancer screening. Specifically, 63.7% of the respondents have moderate knowledge, while 25.2% have low knowledge, and only 11.1% have high knowledge. This pattern suggests that while most teachers are somewhat informed about cervical cancer screening, there is a considerable gap in comprehensive understanding, which could hinder the effectiveness of public health campaigns aimed at increasing screening uptake. This result aligns with previous studies in similar settings. For instance, Ebu et al. (2015) found that healthcare workers in Ghana also exhibited moderate levels of knowledge regarding cervical cancer screening, indicating a widespread issue across the West African region. The moderate level of knowledge observed in this study might be attributable to limited access to continuous professional development opportunities and educational

resources tailored to cervical cancer prevention (Akinyemiju et al., 2015). Moreover, Olaniyan et al. (2010) noted that inadequate health education programs in schools could contribute to the observed gaps in knowledge.

The study further explored the attitudes of public-school teachers towards cervical cancer screening. The data shows that 70.9% of the respondents possess a positive attitude, while 29.1% have a negative attitude. The prevalence of positive attitudes is encouraging as it suggests a general willingness among teachers to engage in screening activities, which is crucial for early detection and treatment of cervical cancer. These findings are consistent with the work of Udigwe (2006), who reported that a positive attitude towards cervical cancer screening was prevalent among Nigerian women. The positive attitude observed in this study could be influenced by the teachers' educational background, as education has been linked to more favorable health behaviors (Nwobodo & Malami, 2005). However, the existence of a significant minority with negative attitudes warrants attention, as these individuals may represent a group at risk of non-participation in screening programs. The influence of cultural beliefs and fear of diagnosis, as noted by Gharoro and Ikeanyi (2006), might explain these negative attitudes and should be addressed in future interventions.

The level of acceptability of cervical cancer screening among public school teachers in Benin Metropolis is notably high, with 60.11% of respondents displaying high acceptability. Despite this, the data reveals a disparity between willingness and actual screening behavior. For instance, while 98.7% expressed willingness to be screened, only 49.9% had ever been screened, and a mere 26.8% had undergone multiple screenings. This gap between intention and action is reflective of barriers such as accessibility, cost, and fear, which have been highlighted in previous studies (Okunowo et al., 2018). According to Ifemelumma et al. (2019), factors such as inadequate screening facilities and the lack of a national screening program in Nigeria contribute significantly to low screening rates despite high willingness. The findings here suggest that while public health education has been effective in creating awareness and positive attitudes, practical challenges continue to impede actual screening uptake.

The chi-square analysis shows a significant influence of knowledge on the acceptability of cervical cancer screening among public school teachers in Benin Metropolis ($p < 0.05$). This finding suggests that increasing knowledge about cervical cancer screening can potentially enhance its acceptability. This is consistent with the Health Belief Model, which posits that individuals who are more informed about a health issue are more likely to engage in preventive behaviors (Champion & Skinner, 2008). Conversely, the study found no significant influence of attitudes on the acceptability of cervical cancer screening ($p > 0.05$). This could be because attitudes, while important, may be overshadowed by other factors such as accessibility, convenience, and personal experiences with healthcare services. This aligns with the findings of Makwe et al. (2012), who reported that positive attitudes alone were insufficient to drive screening behavior in the absence of enabling conditions.

The study highlights the importance of enhancing knowledge about cervical cancer screening among public school teachers to increase the overall acceptability and participation in screening programs. While attitudes are generally positive, their influence on screening behavior appears limited without addressing practical barriers. Therefore, public health interventions should focus on both educational campaigns and improving access to screening facilities to close the gap between intention and action in cervical cancer prevention.

5. Conclusion

In conclusion, the outcome of the research findings revealed that majority of the respondents are knowledgeable and possess high level of positive attitude towards cervical cancer screening. However, it was observed that knowledge has a significant influence on acceptability of cervical cancer screening while attitude does not significantly influence the acceptability of cervical cancer screening among public school teachers in Benin Metropolis. In view of these findings, the following recommendations were made.

6. Recommendations

In view of the challenges resulting from the associations between knowledge, attitude and acceptability of cervical cancer screening, the following recommendations were made:

- The government should carryout educational campaigns and increase efforts to enhance knowledge about cervical cancer screening procedures, focusing on the benefits and addressing misconceptions.
- There should be accessibility improvements by ensuring that screening services are easily accessible to teachers, possibly through school-based health programs.
- There should be continuous promotion of positive attitudes among teachers while

addressing the concerns of those with negative attitudes through tailored interventions.
- Trusted health professionals should be utilized to encourage screening participation, possibly through regular health talks and on-site screening events.
- Emphasis should be laid on regular follow-up screenings to those who have been screened once, ensuring sustained health monitoring.

By addressing these areas, it is likely that both the knowledge level and participation rates in cervical cancer screening among public school teachers in Benin Metropolis can be significantly improved

References

Ackerson, K. (2010). Personal influences that affect motivation in pap smear testing among African American women. *Journal of Obstetrics, Gynecologic & Neonatal Nursing,* (39)2, 136-146.

Campos, N. G., Tsu, V., Jeronimo, J., Mvundura, M., Lee, K., & Kim, J. J. (2017). To expand coverage, or increase frequency: Quantifying the tradeoffs between equity and efficiency facing cervical cancer screening programs in low-resource settings. *International Journal of Cancer*, 140(6), 1293–1305. https://doi.org/ 10.1002 /ijc.30551

Castellsague, X., Bosch, F.X., Munoz, N. (2002). Male circumcision, penile human papillomavirus infection, and cervical cancer in female partners. N. Engl J. Med. 346:1105-12

Ebu, N.I., et al. (2015) Knowledge, Practice and Barriers toward Cervical Cancer Screening in Elmina, Southern Ghana. *International Journal of Women's Health*, 7, 31-39. https://doi.org/10.2147/IJWH.S71797

Edo State Ministry of Education, Iyaro, Benin City.

Hawkins, N. A., Benard, V.B., & Greek, A. (2013). Patient knowledge and beliefs as barriers to extending cervical cancer screening intervals in federally qualified health centers. *Preventive Medicine*. (57) 641-645.

International Agency for Research on Cancer. (2005). A practical manual on visual screening for cervical neoplasia.

Jeronimo, J., Bansil, P., Lim, J., Peck, R., Paul, P., & Amador J.J. (2014). A multicountry evaluation of care HPV testing, visual inspection with acetic acid, and papanicolaou testing for the detection of cervical cancer. *International Journal of Gynecological Cancer.* 24 (3): 576–85.

Kahesa, C., Kjaer, S., Mwaiselage, J., Ngoma, T., Tersbol, B., Dartell, M., & Rasch, V. (2012). Determinants of acceptance of cervical cancer screening in Dates Salaam, Tanzania. BMC Public Health 12, 1093.

National Cancer Institute (2022). *Cervical Cancer Prevention"*. PDQ. Bethesda, MD: National Institutes of Health.

Nindl, I., & Stockfleth, E. (2020). Human papilloma virus infections. *Braun-Falco´s*. *Dermatology*, 16, 1–12. https://doi.org/10.1007/s00147-002-0525-7

WHO, (2024). Cervical cancer retrieved from https://www.who.int/news-room/fact-sheets/detail/cervical-cancer April 25, 2025

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 105–111

Impact of Digitalized Administrative Procedures on Personnel Performance at Borno State University's Department of Education in Maiduguri, Borno State, Nigeria

BABAGANA MUHAMMAD AJI, ABDULKADIR MOHAMMED SAIDU
MADU BABAGANA GUTTI, AISHA ZAJI BUNU
MARYAM ABBAS
University of Maiduguri, Nigeria

Abstract. This study assessed the impact of digitalized administrative procedures on personnel performance at Borno State University's Department of Education in Maiduguri, Borno State, Nigeria. The objectives of this study were to determine the extent of utilization of these digital administrative tools by administrative personnel and Impact of digitalized administrative processes on personnel job performance ar Borno State University. In order to investigate how digitalized administrative procedures affect human resource job performance at Kashim Ibrahim University in Borno State; this study uses a quantitative survey research approach. The quantitative approach is justified because it enables statistical generalizability to the 80 administrative and human resources staff members of the university by collecting numerical data from a large sample (50 respondents) and allowing for objective measurement of the relationships between digitalization and job performance. Stratified random sampling minimizes bias by guaranteeing proportionate representation across several administrative units. Lack of instrument dependability. A structured questionnaire comprising three sections serves as the research tool: Section A (Demographic Information) collects age, gender, and Department; Section B (Level of Digital Resource Utilization) evaluates the use of tools such as e-filing and HR software; and Section C (Impact and Effects) measures changes in workload, job satisfaction, and efficiency. This non-parametric test is perfect for survey data since it analyzes relationships between nominal and ordinal variables without assuming a normal distribution. Data were analyze using descriptive statistics (frequencies, percentages, mean and standard deviation). The finding revealed that majority of the respondents believed that digital tools were used for administrative activities by administrative staff in Borno State University, Maiduguri Borno State, Nigeria. The finding further revealed that majority of the respondents believed that used of digital tools significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria. Based on the findings of the study, the researchers conclude that majority of the personnel believed that digital tools were used for administrative activities by administrative staff. The researchers further conclude that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria. Since conflict resolution strategy, delegations' strategy, training development strategy were found to significantly related to human recourse job performance in the Department of Education, Faculty of Education, University of Maiduguri, Borno State, Nigeria. Therefore, staff in the department should adopt the strategies in management of personnel

Keywords: Digitalized Administrative Procedures, Personnel Performance, Utilization

1. Background of the Study

Educational institutions are embracing digital technology more and more in the current global

environment in an effort to increase institutional efficiency, improve service delivery and reduce administrative procedures. The shift from traditional and manual administrative procedures to digitalized systems has become imperative in the face of rising expectations for transparency, accountability and responsiveness in academic institutions. The increasing demand for effective governance and high-quality education in Nigeria has made it imperative for universities to digitally alter their operations, especially in the areas of administrative duties and human resources (HR). This pattern is also seen at Borno State University, which aims to enhance its academic mission by incorporating digital technologies into its administrative structure.

The use of information and communication technology (ICT) tools to automate workflow, manage records, communication, hiring and performance evaluation is a component of digitalization in university administration. This shift involves more than just computer use; it is a systemic change that rethinks the way administrative work is planned, organized and carried out. The Department of Education, as a key unit within the Faculty of Education at the Borno State University, serves as a focal point for this digital transition, particularly as it pertains to managing academic and administrative staff, student services, and institutional reporting.

"Digitalized administrative processes" refers to the way that digital technologies are used and incorporated into the management of institutional operations, either to supplement or replace manual methods. These processes address a wide range of duties, including but not limited to:

1. The use of digital platforms for hiring, onboarding, leave administration, training, payroll, and performance reviews is known as electronic human resource management, or e-HRM. To do this, HR operations are automated and centralized using tools like Human Resource Information Systems (HRIS).
2. Document Management Systems (DMS): These systems make it possible to create, save, retrieve and share documents electronically. Student records, staff files, policy documents and communication archives are all included in academic institutions.
3. Workflow Automation Tools: Software programs that design and automate routine administrative duties such as departmental communication, reporting, and approval workflows. Custom ERP systems, Microsoft Excel, and Microsoft Power Automate are a few examples.
4. Digital Communication Tools: These include instant messaging applications, intranet portals, email systems and video conferencing equipment that promote effective internal communication and teamwork.
5. Online portals and databases: These are systems that let employees communicate with different departments within the organization, access information, submit reports and update records.

Digitalized administrative processes are characterized by their ability to enhance data accuracy, reduce processing time, ensure timely communication and improve record-keeping. They enable administrative departments to transition from paper-based systems to dynamic, real-time management models, which are crucial in today's knowledge-based economy.

The integration of digital administrative systems has a profound impact on the performance of human resource personnel in academic institutions. At its core, HR job performance is measured through effectiveness, efficiency, responsiveness and innovation in executing tasks such as recruitment, training, employee relations and performance management. The digitalization of administrative functions streamlines these HR activities, reducing the time and effort required for routine tasks and allowing HR staff to focus on deliberate actions that add value to the institution.

According to Marler and Parry (2016), digital HR tools enable organizations to improve service delivery, enhance employee experience and support data-driven decision-making. Furthermore, Bondarouk and Ruël (2009) stress that by automating repetitive tasks and strengthening information accuracy, e-administrative systems enhance the alignment between HR strategies and organizational objectives. In the context of Nigerian universities, Ojo and Akinbode (2019) observed that digital administrative processes enhance accountability, promote efficiency and reduce human errors, thereby improving overall job performance of HR in the Department.

Borno State University's decision to investigate how digitalized administrative procedures affect human resource job performance is based on several key observations regarding the institution's ongoing digital transformation and its operational difficulties. The researchers observed that, firstly, while the university has

recently adopted some digital tools (such as HR software, online registration systems, and digital record-keeping), there appears to be uneven implementation across departments, leading to disparities in efficiency. Secondly, insufficient training, resistance to change, and system outages are common complaints from administrative staff, which prevent them from making the most of these digital tools. Thirdly, manual procedures continue to be used in many units despite investments in digital infrastructure, resulting in a dual-system load that could diminish worker productivity. Additionally, there are concerns about whether the digitalisation efforts have actually translated into measurable improvements in job performance, such as faster service delivery, reduced errors, or enhanced staff satisfaction. In conclusion, the university's distinct location in an area that occasionally faces infrastructure issues such as power outages and internet access necessitates examining how these elements influence the connection between HR performance and digitalization. This research aims to systematically evaluate these observed gaps to provide data-driven evidence and recommendations for optimizing digital administrative processes in the institution.

In the digital era, the transformation of administrative processes through technology has emerged as a critical factor for improving organizational efficiency, transparency and strategic agility. In higher education, particularly in public institutions in developing countries such as Nigeria, the integration of digital technologies in administrative functions is expected to address long-standing inefficiencies related to paperwork, delays and ineffective service delivery. However, despite ongoing efforts to digitalize administrative operations in universities, including the Department of Education, Faculty of Education, University of Maiduguri, there remains a substantial disconnect between digital adoption and actual improvements in personnel job performance.

Moreover, there is a notable scarcity of empirical research examining how digitalized administrative processes specifically affect HR job performance within Nigerian universities. While studies such as Marler and Parry (2016) in global contexts and Bondarouk and Ruël (2009) in European settings have established that e-HRM systems can improve performance through automation and data-driven decision-making, local studies that examine this relationship within the context of Nigerian higher education remain limited. This gap in the literature makes it difficult for university administrators and policymakers to make informed decisions on how to optimize digital processes for enhanced HR outcomes.

The researchers observed that, despite the significance and empirical evidence on the roles and efficiency of ICT tools in administrative activities such as staff records, payroll and communication, the personnel performance, especially administrative staff, tends to be low. The low performance may be a result of a lack of technical knowledge to use the tools effectively and efficiently. In the Department of Education, Faculty of Education, Borno State University, Anecdotal evidence also revealed that, despite the presence of digital platforms for staff records, payroll, and communication, personnel performance challenges persist. These challenges include delays in staff appraisal processes, inefficiencies in managing leave and promotions and poor access to performance data. These problems raise serious concerns regarding the extent to which digital systems have been successfully institutionalized and whether they are translating into verifiable gains in HR job performance. As a result, this study examined the impact of digitalized administrative processes on human resource job performance at Borno State University's Department of Education.

1.1 Objectives of the study

The objectives of this study were to determine:
- The extent of utilization of these digital administrative tools by administrative personnel in Borno State University.
- Impact of digitalized administrative processes on personnel job performance at Borno State University.

1.2 Research Questions

To guide this study, two research questions were raised:
- What is the extent of utilization of digital tools by administrative personnel in the Department of Education, Borno State University, Borno State?
- What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State?

2. Literature Review

Bwalya (2012) investigated "The Impact of Digital Resources on Administrative Efficiency

in Zambia's Public Sector." Using a mixed-methods approach, the study included 180 government employees and 30 IT professionals chosen through stratified and purposive sampling. Surveys and focus group talks were utilized as research tools. The findings showed that digital solutions considerably decreased bureaucratic delays, but they encountered challenges such as sporadic internet connectivity and hefty maintenance expenses. The study argued for additional investment in ICT infrastructure to promote digital transformation.

Lau and Pan (2016) studied "Digitalization in Public Administration: A Comparative Analysis of Singapore and Hong Kong." The comparative study employed a qualitative design, reviewing policy texts and conducting interviews with 40 senior administrators from both regions (purposive sampling). The findings revealed that Singapore had higher digital resource usage due to strong government commitment and citizen participation, whereas Hong Kong had slower adoption due to fragmented policies. The study underscored the role of leadership and integrated strategies in successful digital administrative processes.

Adegbuyi, Akinyele and Akinyele (2020) conducted a study titled "Digital Transformation and Employee Performance: Evidence from Nigerian Public Sector Organizations." The study, conducted in Nigeria, used a quantitative research design and surveyed 320 HR personnel and administrative staff from several government agencies using stratified random sampling. Structured questionnaires were used to obtain information about digital tool use and job performance measures. The study found that digitalizing administrative activities improved efficiency, reduced paperwork, and increased staff productivity. However, obstacles to peak performance were a refusal to change and insufficient training. The study advocated ongoing training programs to maximise the benefits of digital transformation in HR operations (Adegbuyi et al., 2020).

Khan and Khan (2019) investigated the relationship between digital HRM practices and job performance in their study, "Impact of Digitalized HR Processes on Employee Performance: A Study of Pakistani Banking Sector." The researchers used a mixed-methods strategy to collect data from 150 Pakistani bank employees using purposive sampling, which included surveys and in-depth interviews. Performance appraisals and Likert-scale questionnaires were used as study instruments. The results showed that digitalized HR operations, such as e-recruitment and automated payroll systems, improved employee performance by decreasing administrative burdens and increasing accuracy. However, the study also found that employees with low digital literacy experienced stress, suggesting the need for better onboarding and support systems (Khan & Khan, 2019).

Mueller and Renken (2017) investigated "The Effects of Digital Administrative Tools on HR Job Performance in German SMEs."The study, conducted in Germany, adopted a qualitative case study design, interviewing 25 HR professionals from small and medium-sized enterprises (SMEs) selected through snowball sampling. Semi-structured interviews and workplace observations were used as research instruments. The findings revealed that digital solutions such as HR information systems (HRIS) expedited recruitment, performance tracking, and compliance management, resulting in increased job satisfaction and productivity. However, the study found that an overreliance on digital technology can limit interpersonal contacts, lowering staff morale. The researchers emphasized the importance of balancing digital efficiency with human-centric HR practices (Mueller & Renken, 2017).

Obeidat, Tarhini and Aqqad (2018) examined "The Impact of Digital HRM on Employee Performance: Evidence from Jordanian Telecommunication Companies." The study used a quantitative cross-sectional approach and surveyed 400 employees from Jordan's telecom sector using random sampling. Structured questionnaires assessed digital HRM adoption, job performance, and employee engagement. The results showed that digitalized administrative operations, such as e-learning platforms and performance management systems, improved work performance by allowing for speedier decision-making and skill development. Notably, the study discovered that younger employees adapted faster to digital tools, whereas older employees required specific training interventions (Obeidat et al., 2018).

Yoo and Lee (2021) investigated "Digital Transformation in HR and Its Impact on Employee Performance: A Comparative Analysis of South Korean Public and Private Sectors." The research adopted a comparative mixed-methods methodology, assessing survey responses from 500 employees (stratified sampling) and conducting focus group talks

with 30 HR managers in South Korea. The instruments included performance metrics, digital competency assessments, and open-ended interviews. Findings revealed that digital HR tools (e.g., AI-driven analytics and cloud-based systems) improved performance metrics in both sectors but were more effective in private organizations due to greater flexibility and innovation culture. The study underscored the role of organizational culture in maximizing the positive impacts of digitalization on HR performance (Yoo & Lee, 2021).

3. Methodology

In order to investigate how digitalized administrative procedures affect human resource job performance at Kashim Ibrahim University in Borno State, this study uses a quantitative survey research approach. The quantitative approach is justified because it enables statistical generalizability to the 80 administrative and human resources staff members of the university by collecting numerical data from a large sample (50 respondents) and allowing for objective measurement of the relationships between digitalization and job performance. Stratified random sampling minimizes bias by guaranteeing proportionate representation across several administrative units. Lack of instrument dependability. A structured questionnaire comprising three sections serves as the research tool: Section A (Demographic Information) collects age, gender, and Department; Section B (Level of Digital Resource Utilization) evaluates the use of tools such as e-filing and HR software; and Section C (Impact and Effects) measures changes in workload, job satisfaction, and efficiency. This non-parametric test is perfect for survey data since it analyzes relationships between nominal and ordinal variables without assuming a normal distribution. Data were analyze using descriptive statistics (frequencies, percentages, mean and standard deviation) to provide a summary of trends and guarantee a thorough assessment of how digital transformation affects HR performance in academic settings.

4. Data Analysis and Results

Research Question One: What is the extent of utilization of digital tools for administrative process by administrative personnel in Borno State University?

Table 1: Descriptive Analysis of extent of utilization of digital tools for administrative process by administrative personnel in Borno State University

Items	Agree (Freq)	Agree%	Disagree (Freq)	Disagree %	Mean	SD
I use Digital tool for Human Resources tasks such as recruitment	48	96%	02	04%	3.5600	.64397
The Human Resource Department utilizes a centralized digital system for manageing employee	45	90%	05	10%	3.3400	.77222
Digital communication platforms are effectively used for internal Human Resources Communications	47	94%	03	06%	3.3400	.59281
Workflow automation tools have streamlined Human Resources processes in our Department	41	82%	09	18%	3.2000	.83299
I have received adequate training to effectively use digital Human Resources tools	46	92%	04	8%	3.2400	.65652
Average Score	227	90%	23	10%	3.336	.6997

Table 1 on the research question one say that, What is the extent of utilization of digital tools for administrative activities by administrative personnel in Borno State University? The findings revealed that 90% of the respondents are of the opinion that, they used digital tools for administrative activities in Borno State University, Maiduguri Borno State, Nigeria. While 10% of the respondents disagreed with the fact that, they used digital tools for administrative activities in Borno State University, Maiduguri Borno State, Nigeria. This implies that, majority of the respondents believed that digital tools were used for administrative activities by administrative staff in Borno State University, Maiduguri Borno State, Nigeria.

Research Question Two: What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State?

Table 2: Descriptive Analysis of impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State

Items	Agree (Freq)	Agree (%)	Disagree (Freq)	Disagree (%)	Mean	SD

Digitalization has improved the efficiency of Human Resource operations	48	96%	02	04%	3.6400	.63116
The accurancy of Human Resources data has increased due to digital processes	48	96%	02	4%	3.5600	.67491
Digital tools have reduced the time required to complete human resource tasks	43	86%	07	14%	3.3600	.82709
Employee satisfaction with Human Resource Services has improved with digitalization	44	88%	06	12%	3.3400	.79821
Digital processes have enhanced decision-making in Human resource management	45	88%	06	12%	3.3000	.83910
Average Score	228	91%	23	09%	3.4400	.75409

Table 2 on the research question two say that: What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State? The findings revealed that 91% of the respondents are of the opinion that, they used of digital tools for administrative activities significantly impacted on personnel job performance in the Department of Education, Borno State University, Borno State. While 9% of the respondents disagreed with the fact that, they used digital tools for administrative activities significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria. This implies that, majority of the respondents believed that used of digital tools significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria.

5. Discussion

The finding in respect to research question one which states, what is the extent of utilization of digital tools for administrative process by administrative personnel in the Department of Education, Borno State University, Borno State? The findings of the study revealed that majority of the respondents believed that digital tools were used for administrative activities by administrative staff in the Department of Education, Borno State University, Borno State, Nigeria. The findings of the confirm the finding of Bwalya (2012), Lau and Pan (2016), Adegbuyi and Akinyele and Akinyele (2020) which revealed that majority of the respondents uses digital tools for organizational activities.

The finding in relations to research question two which states that, what is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State? The findings of the study revealed that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria. The findings were inconsonance with the findings of Khan and Khan (2019), Mueller and Renken (2017), Obeidat, Tarhini and Aqqad (2018) and Yoo and Lee (2021) which revealed that majority of the respondents were of the opinion that digitalized administrative processes has a significant influence on personnel job performance within an organization.

6. Conclusion

Based on the findings of the study, the researchers conclude that majority of the personnel believed that digital tools were used for administrative activities by administrative staff. The researchers further conclude that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria.

7. Recommendations

Based on the finding of the study, the researchers recommend the following:

- Since majority of the personnel uses digital tools for administrative processes and it also shown a significant impact on their job performance, the Management or state government should provide the digital tools for administrative activities.

References

Adegbuyi, O. A., Akinyele, F. A., & Akinyele, S. T. (2020). *Journal of Public Affairs*, 20(3), e2102.

Almarabeh, T., & AbuAli, A. (2010). Factors Affecting Students' Usage of Learning Management System at the University of Jordan. *International Journal of Network Management, 20 (2), 1-25.*

Bondarouk, T.V., & Ruël, H.J.M. (2009). Electronic Human Resource Management: Challenges in the digital era. *The International Journal of Human Resource Management, Vol. 20, No. 3, 505–514.*

Bwalya, K. J. (2012). Government Information Quarterly, 29 (3), 346-355. Heeks, R., & Bailur, S. (2007). *Information Technologies & International Development*, 4 (1), 1-14. Lau, E. K. W., & Pan, S. L. (2016). *Public Administration Review, 76 (5), 779-789.*

Ebrahim, Z., Irani, Z., &Love, P.E.D. (2010). A business model for public sector information systems. *International Journal of information Management 24 (6), 543-556.*

Khan, S. A., & Khan, M. A. (2019). Pakistan *Journal of Commerce and Social Sciences*, 13 (2), 526-546.

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement, 30 (3), 607-610.*

Liu, Y. (2024). Current Status and Development Strategies of Grassroots Basketball Coaching Training System in China. https://doi.org/10.22158/jetss.v6n3p121

Marler, J.H., & Parry, E. (2016). e-HRM: A meta-analysis of the antecedents, consequences, and cross-cultural differences.

Mueller, J., & Renken, U. (2017). Enhancing Student Learning through Online Faculty Development. *International Journal of Human Resource Management, 28 (12), 1649-1672.*

Musa., J. M. (2024). Digital Transformation in HR and Its Impact on Employee Performance. *International Journal of Educational Administration*, *17(2), 12-22.*

Obeidat, B. Y., Tarhini, A., & Aqqad, N. (2018). investigate the interrelationships among the three behavioural constructs of job involvement, job satisfaction and organizational commitment. *Journal of Management Development, 37(5), 529-544.*

Ojo, A., Janowski, T., & Awotwi, J. (2013). Transforming Government: People, Process, and Policy, 7(3), 358-376.

Qayum, M., & Qayum, M. (2024). Does Foreign Direct Investment and Institutional Quality Promote Welfare in Pakistan? Evidence from Non-Linear Autoregressive Distributed Lag Co-Integration. Sustainability, 16(23), 10434.

Tyndall, P. S. (2017). An integrated framework for strategic institutional partnerships: A mixed methods case study of higher education at a TAFE institute. https://core.ac.uk/download/628757376.pdf

Vasilev, D. (2024). Application Of Digital Technologies In The Management Of The Educational Institution. *Education And Technologies Journal. Https://Doi.Org/10.26883/2010.242.6148*

Yoo, J., & Lee, S. (2021). Digital Transformation in HR and Its Impact on Employee Performance. *Journal of Asian Business & Management, 20 (4), 456-480.*

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 113–121

Evaluation of Work Related Stress among Nurses in Some Selected Hospitals in Maiduguri, Borno State, Nigeria

ABDULLAH ABDULSALAM, S. A. TIJJANI,
M. K. GANA, T.A. AZEEZ, J. Z. VURHO
University of Maiduguri, Borno State, Nigeria

Abstract. Workplace stress is the physical and emotional responses to situation that can happen when there is a conflict between job demands on the employee and the amount of control an employee has over meeting these demands. Work stress is comprised of the mental and physical conditions, which hurt the productivity, effectiveness, psychophysical health, work ability, satisfaction, and quality of work of individual workers in the workplace. Aim of this study is to assess frequency of stressful event among nurses and how stressful they perceived those events to be based on nine subscales of stress factors. This study adopted descriptive research design. The population of this study is 1690 while 310 were selected as sample size. The instrument for this study is adapted version named Nursing Stress Scale (NSS) with 38 items and 9 subscales. The instrument uses 5-liket scale range from not at all stressful to extremely stressful. The instrument was validated for content and face validity by experts in the Department of Nursing Science University of Maiduguri and some senior nursing staff in University of Maiduguri Teaching Hospital. The reliability of the instrument was determined using Split-half reliability method among 18 nurses that were excluded from study. The reliability of the instrument is 0.71 which adjudge it reliable. Descriptive statistics of frequency counts, percentages and mean were used to analyze the data collected, while inferential statistics of independent t-test was used to test the hypothesis. The result showed that the leading stress factors among the nurses are; stress levels of death and dying stressors with mean (3.41) and S.D (1.25), stress levels of discrimination stressors with mean (3.34) and S.D (1.28), stress levels of uncertainty concerning treatment stressors with mean (3.35) and S.D (1.28) and stress levels of workload stressors with mean (3.44) and S.D (1.55). Moreover, the result of this study showed that no significant difference exists in dying and death of patients among nurses in some selected hospitals in Maiduguri based on gender (P>0.05). It was concluded that job-related stress among nurses in selected Maiduguri hospitals was high. Then, it was recommended that organizations/ hospitals that employ nurses should organize programs/ seminars to monitor and manage stress especially regarding staff issues and job demands.

Keywords: Work related, Stress, Nurses.

1. Introduction

Workplace stress is the physical and emotional responses to situation that can happen when there is a conflict between job demands on the employee and the amount of control an employee has over meeting these demands (Canadian Mental Health Association, 2018). Work stress is comprised of the mental and physical conditions, which hurt the productivity, effectiveness, psychophysical health, work ability, satisfaction, and quality of work of individual workers in the workplace (Khamisa, Oldenburg, Peltzer, 2015; Manabete, John & Makinde, 2016). Thus, work stress is an interactional construct encompassing a misfit between environmental demands and personal abilities which consist of emotional feeling and physical conditions which affect the productivity, effectiveness, psychological health, satisfaction, workability, and work quality of personal workers at the place of work. Hence, work stress is an interactional construct encompassing a misfit between environmental demands and personal abilities (Ojekou & Titilayo, 2015). Hanson, Onasoga and Babalola, 2017 had lamented that:

work related stress result in some lost to every organisation which include injury claims, absenteeism, attrition rates, errors in treating patient, reduced productivity, and health care resources, and reduction in productivity in turn can bring conflicts between employee and employer, recruitment and retention problems, burnout, absenteeism, litigation and rapid turn-over, and inadequate job satisfaction.

Nursing professionals are trained with provision adequate human health care services to patients or sick person and their families which are, empathetic, responsive, collaborative, and culturally informed, and the expectation to render qualitative services with few resources can subsequently lead to severe work-related stress for nurses. According to Ogundipe, Obinna, and Olawale (2015), they develop closer relationship with the patient more than any other medical personnel and are important to day to healthcare services of any hospital. This enormity of work that nurses have to contend with results in stress which is a major cause of concern for many nurses at work It is very crucial to know the impact of nursing as a medical practitioner because any harm done to their psychological and mental as a result of stress can negatively affect the discharge of patient care; it can cause a great deal of distress to the employee concerned and affect the employee's health. As a nurse, by tradition and training, you are good at spending a great deal of mental, emotional and physical energy on caring for others. Taking time to think about caring for yourself can be frightening and difficult. It is obvious from anecdotal evidence and research that nursing is a stressful profession. It is a job that requires individual to physically and mentally agile at all levels. Physically, the job can be demanding with high levels of muscular-skeletal stress, culminating in many aches and pains. Mentally, you are required to be versatile making mathematics calculation for medication and responding to different questions from patients and relatives. Emotionally, the impact is felt when you empathise and help people, and from the toll of working in an environment where there is pain and sadness.

The origin and nature of stress among nurses and other medical or health personnel have increasingly call the researchers' attention and health managers not only in Nigeria but also worldwide (Nwabuoku, & Adebayo, 2010). In a previous study conducted by (Mojoyinola, 2008) on effects of job stress on the physical health, mental health, personal and work behaviours of nurses in public hospitals in Ibadan Metropolis, Nigeria; the researcher found that job stress has significant effect on physical and mental health of the nurses. The author said that these job stress, may be due to some factors like poor working condition, excessive work load, shift work, long hours of work, role ambiguity, role conflicts, poor relationships with the boss, colleagues or subordinate officers, risk and danger, among other, and effect of job stress can be felt in parts of the like muscular tensions and ache, tightness in the chest, high blood pressure, heart problems, and can occur in the form of conflict like snapping and arguing with others, aggressive or hostile behaviour, blaming others or administration for tension, absenteeism and high staff on job turnover. The above manifestations can be clearly observed in hospital nursing staff, which may have negative effects on their health, personal and work behaviours. It is against this view this paper was conducted to evaluate work related stress among nurses in some selected hospitals in Maiduguri, Borno Btate, Nigeria.

1.1 Objectives of the Study

The objectives of the study were to:

- Assess frequency of stressful event among nurses and how stressful they perceived those events to be based on nine subscales of stress factors (Death and dying of patients, Conflict with Physician, Inadequate emotional preparation among others).

2. Research Methodology

Design: This study adopted descriptive research design

Population and Sample: The population of this study is 1690 while 310 was used as sample size using Krejcie & Morgan table (1970). A purposive sampling was used to select four conventional hospitals in Maiduguri, while proportionate sample technique was used to ensure equal representation, while accidental sample method was used to administered the instrument. For the purpose of this work, the name of the selected hospitals was kept secret. The population of the respondents in each of the selected hospitals were; hospital A = 657, B= 279, C= 437 and D= 317. The table below shows the proportionate sample technique.

Table 1: Population and Sample

SN	Name of the Hospitals	Population	Sample
1.	A	657	121
2.	B	279	51
3.	C	437	80
4.	D	317	58
	Total	1690	310

Research Instrument

The instrument for this study is divided into two sections. The first section deals with demographic information of the respondents (gender, year of experience and cadre). The second instrument deals with nursing stress named Nursing Stress Scale (NSS) which was adapted from Gray-Toft and Anderson (1981). The original version of (NSS) has 59 items with 9 subscales. For the purpose of this study, the instrument was modified to 38 items, but still maintain 9 subscales (stress factors) after pilot test. The reason for the reduction in items of the instrument was because during pilot test, these respondents (nurses) were complaining that the questions are many as they are always busy. The instrument uses 5-liket scale to assess how stressful event (1) not at all stressful, (2) slightly stressful, (3) moderately stressful, (4) very stressful, and (5) extremely stressful. The lower the score obtained, the lesser the frequency of stress experience respondents. Similarly, the higher the score obtained, the greater the frequency of work stressors experienced by the participant.

Although, Pinikahana and Happell, 2004 has demonstrated validity of Nursing Stress Scale (NSS) in their study of (Stress, burnout and job satisfaction). The NSS was further validated for content and face validity by experts in the Department of Nursing Science University of Maiduguri and some senior nursing staff in University of Maiduguri Teaching Hospital. The reliability of the instrument was determined using Split-half reliability method. The reliability of the instrument was test at State Specialist Hospital Maiduguri, Borno State among 18 nurses. Data collected were analyzed using Cronbach Alpha reliability full test of 0.71 which adjudge it reliable.

Research Procedure

Verbal ethical approval was obtained from the Health Research Ethics Committee (HREC) of the selected Hospitals. Data was collected from January 18th 2023 to January 31st to using self-administered questionnaires. The questionnaires were distributed by the researchers and two research assistant. Questionnaires were given to the nurses in their wards and unit. Period of 5 days were given to fill and return it to the Head of the Ward and the completed questionnaires were later collected from the Ward Heads. Only Questionnaires that were correctly filled were sorted, coded and analyzed.

Method of Data Analyses

Descriptive statistics of frequency counts, percentages and mean were used to analyze the data collected, while inferential statistics of independent t-test was used to test the hypothesis. Data analysis was done using SPSS version 20.

3. Results

Table 1: Demographic Information of the Respondents

n=307

SN	Variable	Frequency	Percentage(%)
1	Gender		
	Male	84	26.2%
	Female	223	69.5%
2.	Years of Experience		
	1—5years	84	26.2%
	6—10years	121	37.7%
	11years and above	102	31.8%

3.	Cadre		
	NOI— NOII	139	45.3%
	SNO — PNO	117	38.1%
	ACNO — CNO	51	16.6%

Key: Nursing Officer I= NOI, Nursing Officer II =NOII, Senior Nursing Officer = SNO, Principal Nursing Officer = PNO, Assistant Chief Nursing Officer = ACNO, Chief Nursing Officer = CNO

Table 1 which is on demographic information of the respondents showed that 84(26.2%) of the respondents were male, while 223(69.5%) of them were female, 84(26.2%) had 1—5years of experience, 121(37.7%) had 6—10years of experience, while 102(31.8%) had 11years and above experience. The table further indicated that 139(45.3%) of these nurses were between NOI— NOII, 117(38.1%) were between SNO — PNO, while 51(16.6%) were between ACNO —CNO. This indicated that most of the respondents had 6—10years of experience and most of them were NOI— NOII.

Table 2: Stress Levels of Death and Dying Stressors

SN	Statement	Mean	S.D	Decision
1.	The death of a patient	3.34	1.17	stressful
2.	Feeling helpless in the case of a patient who fails to improve	3.31	1.30	stressful
3.	Watching a patient suffer	3.36	1.22	stressful
4.	The death of a patient with whom you developed a close relationship	3.66	1.26	stressful
5.	Performing procedures that patients experience as painful	3.29	1.29	stressful
6.	Listening or talking to a patient about his/her approaching death	3.51	1.26	Stressful
	Average	3.41	1.25	Stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES

Result of table 2 indicates mean and standard deviation scores of stress levels of death and dying stressors among the respondents. The analysis reveals that more of the items were rated above a mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 3.85 and 0.48 respectively. This implies that death and dying of patients are stressors to the nurses.

Table 3: Stress Levels of Inadequate Emotional Preparation Stressors

S/N	Statement	Mean	S.D	Decision
1.	Being asked a question by a patient for which I do not have a satisfactory answer	2.12	1.02	Not stressful
2.	Feeling inadequately prepared to help with the emotional needs of a patient	2.28	1.08	Not stressful
	Average	4.4	2.1	Not stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES.

Result of table 3 indicates mean and standard deviation scores of stress levels of inadequate emotional preparation stressors among the respondents. The analysis reveals that more of the items were rated below the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 4.4 and 2.1 respectively. This implies that inadequate emotional preparation are not stressors among the respondents.

Table 4: Stress Levels of Conflict with Physician Stressor

S/N	Statement	Mean	S.D	Decision
1.	Conflict with a physician	2.05	1.01	Not stressful
2.	Disagreement concerning the treatment of a patient	2.12	0.96	Not stressful
3.	Making a decision concerning a patient when the physician is unavailable	2.14	1.01	Not stressful
	Average	2.10	0.99	Not stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES.

Result of table 4 indicates mean and standard deviation scores of stress levels of conflict with physicians among the respondents. The analysis reveals that more of the items were rated below the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 2.10 and 0.99 respectively. This implies that conflict with physicians are not stressors among the respondents.

Table 5: Stress Levels of Problems with Supervision Stressors

S/N	Statement	Mean	S.D	Decision
1.	Lack of support of my immediate supervisor	2.05	1.01	Not stressful
2.	Lack of support by nursing Administration	2.02	1.01	Not stressful
3.	Being held accountable for things over which I have no control	2.08	0.96	Not stressful
	Average	2.05	0.99	Not stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES.

Result of table 5 indicates mean and standard deviation scores of stress levels of conflict with physicians among the respondents. The analysis reveals that more of the items were rated below the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 2.05 and 0.99 respectively. This implies problems with supervision Stressors are not stress among the respondents.

Table 6: Stress Levels of Problems with Peers Stressors

S/N	Statement	Mean	S.D	Decision
1.	Lack of opportunity to share experiences / feelings with other personnel in the work setting	2.14	1.04	Not stressful
2.	Difficulty in working with a particular nurse (or nurses) in my immediate work setting	2.22	1.05	Not stressful
3.	Difficulty in working with nurses of the opposite sex	2.27	1.09	Not stressful
	Average	2.21	1.06	Not stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES.

Result of table 6 indicates mean and standard deviation scores of stress levels of problem with peer stressors among the respondents. The analysis reveals that more of the items were rated below the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 2.21 and 1.06 respectively. This implies problems with peer stressors are not stress among the respondents.

Table 7: Stress Levels of Discrimination Stressors

S/N	Statement	Mean	S.D	Decision
1.	Experiencing discrimination because of race or ethnicity	3.28	1.32	stressful
2.	Being sexually harassed	3.40	1.24	stressful
	Average	3.34	1.28	stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES

Result of table 7 indicates mean and standard deviation scores of stress levels of discrimination stressors among the respondents. The analysis reveals that more of the items were rated above the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 3.34 and 1.28 respectively. This implies discrimination stressors are stress among the respondents.

Table 8: Stress Levels of Uncertainty Concerning Treatment Stressors

S/N	Statement	Mean	S.D	Decision
1.	Inadequate information from a physician regarding the medical condition of a patient	3.41	1.21	Stressful
2.	A physician ordering what appears to be inappropriate treatment for a patient	3.43	1.29	Stressful
3.	Fear of making a mistake in treating a patient	3.14	1.21	Stressful
4.	A physician not being present in a medical emergency	3.54	1.27	Stressful
5.	Feeling inadequately trained for what I have to do	3.24	1.40	Stressful
6.	Not knowing what a patient /patient's family ought to be told about condition/ treatment	3.19	1.31	Stressful
7.	Being exposed to health and safety hazards	3.52	1.28	Stressful
	Average	3.35	1.28	Stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES.

Result of table 8 indicates mean and standard deviation scores of stress levels of uncertainty concerning treatment stressors among the respondents. The analysis reveals that more of the items were rated above the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 3.35 and 1.28 respectively. This implies uncertainty concerning treatment stressors are stress among the respondents.

Table 9: Stress Levels of Workload Stressors

S/N	Statement	Mean	S.D	Decision
1.	Not enough staff to adequately cover the unit	3.55	1.21	Stressful
2.	Having to work through breaks	3.42	1.27	Stressful
3.	Too many non-nursing tasks required, such as clerical work	3.55	2.66	Stressful
4.	Not enough time to complete all of my nursing tasks	3.33	1.34	Stressful
5.	Not enough time to provide emotional support to the patient	3.39	1.27	Stressful
	Average	3.44	1.55	Stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES

Result of table 8 indicates mean and standard deviation scores of stress levels of workload stressors among the respondents. The analysis reveals that more of the items were rated above the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 3.44 and 1.55 respectively. This implies work-loads stressors are stress among the respondents.

Table 10: Stress Levels of Patient and Family Stressors

S/N	Statement	Mean	S.D	Decision
1.	Not knowing whether patients families will report you for inadequate care	2.18	1.16	Not stressful
2.	Having to deal with abuse from patients families	2.15	1.03	Not stressful
3.	Having to deal with abusive patients	2.23	1.03	Not stressful
4.	Being the one that has to deal with the patients families	2.31	1.08	Not stressful
5.	Being blamed for anything that goes wrong	2.54	1.37	Not stressful
6.	Families making unreasonable demands	2.49	1.31	Not stressful
7.	Patients making unreasonable demands	2.49	1.34	Not stressful
	Average	2.34	1.18	Not stressful

Not at all Stressful =NS, Slightly Stressful =SS, Moderately Stressful=MS, Very Stressful =VS, Extremely Stressful=ES

Result of table 8 indicates mean and standard deviation scores of stress levels of patient and family stressors among the respondents. The analysis reveals that more of the items were rated above the mean score of 3.0 by the respondents. The responses by these respondents are evident in a grand mean and SD score of 2.34 and 1.18 respectively. This implies that patients and family are not stressors among the respondents.

Table 3: Independent Sample t-test Analysis Showing Differences in Stress Levels of Death and Dying of Patients among Nurses in Maiduguri, Borno State based on Gender.

Death and Dying	Gender	N	Mean	SD	Cal. t-value	Df	P-value	Decision
	Male	84	3.41	.41	.03	305	.97	Retained
	Female	223	3.41	.59				

P-value>0.05, Cal. t-value= .03, df = 305.

Table 5 showing independent sample t-test analysis in stress levels of death and dying of patients between male and female nurses in some selected hospital in Maiduguri, Borno State indicated that P-value>0.05, Cal. t-value= .03, df = 305. Hence, the tested hypothesis which say there is no significant difference in death and dying of patients some selected hospital in Maiduguri, Borno State, based on gender was retained (P>0.05). This indicated that no significant difference exists in dying and death of patients among nurses in some selected hospitals in Maiduguri based on gender (P>0.05).

4. Discussion

This study was carried to evaluate work related stress among nurses in some selected hospitals in Maiduguri, Borno Btate, Nigeria. The result showed that the leading stress factors among the nurses are; stress levels of death and dying stressors with mean (3.41) and S.D (1.25), stress levels of discrimination stressors with mean (3.34) and S.D (1.28), stress levels of uncertainty concerning treatment stressors with mean (3.35) and S.D (1.28) and stress levels of workload stressors with mean (3.44) and S.D (1.55). This is in line with the study of Faremia, Olatubib, Adeniyic and Salau (2019), who reported that not enough staff to adequately cover the load of the ward, lack of drugs and equipment required for nursing care, death of patient with whom they developed a close relationship with, the death of a patients among others. Other previous studies that found similar results were (Ogundipe, Obinna, & Olawale, 2015; Natukunda, 2008). They found that nurses face turmoil in their profession, such as huge human need, inadequate resources to care for patients properly, maladministration or bad system of administration, and environmental stress. The result of this study supports the finding of Antoniou, Ploumpi and Ntalla

(2013), who reported that primary school teachers experience higher levels of stress.

Similarly, the result of this study indicated that out of all the stress level assessed among our respondents, workload stressors with mean (3.44) and stress levels of death and dying stressors with mean (3.41) has highest level of stress. This is amazed as most of organizations in Nigeria are always shortage of staff and nobody love to lost his/her relatives to death, as it is inevitable part of life. This finding is similar to a study conducted in Gombe State, Nigeria, where they reported that workload stressors and death and dying stressors has the highest mean stress level of 2.82 and 2.78 respectively (Danjin, Adamu Ribadu & Adam, 2016). The result of this study is similar to previous studies conducted within Nigeria and beyond Bakare, Oluwole, Hamzat, Olasunkanmi and Animashaun, 2022; Tajvar, Saraji, Ghanbarnejad, Omidi, Hosseini and Abadi (2015). The writers found that the work-related stress and mental health problems were common among the participants, which is similar to reports from other countries and is a reflection of stressful work conditions of the study participants. The prevalence of stress among the respondents was 87.6%. Finding from this study also relate to the study of Johnson, Cooper, Cartwright, Donald, Taylor & Millet, (2005). They found reasonably higher level of work stress among nurses compared to other professions. Such a difference may be associated to the use of diverse tools for evaluation of stress in this working population.

Moreover, this finding is supporting the finding of Mansour, Taha, El-Araby and Younes (2014) in two main hospitals in Riyadh city. The result of their study revealed that almost average (49%) of their participants frequently perceived stress at working place. The result of this work corroborates the study of Verdon, Merlanie, Perneger and Ricou, (2008), who found that the nurses has long been seen one of the most stressful workers in addition to researches findings support the conclusion that the multiple health care setting translate into significant stress levels among nurses. The result of this study buttresses the study of Shareinia, Khuniki, Bloochi, Eydi zeynabad & Hosseini, (2018). They explained that mean job stress nursing was in emergency department (2.14±0.52) and in non-emergency departments (0.651 ± 1.84). They further lamented that the mean score of occupational stress are generally higher than in other parts of the emergency department nurses (p=0.002). The result of this study indicated that uncertainty concerning treatment stressors are stressful to the respondents. This is evident as the grand mean and SD score are 3.35 and 1.28 respectively. This consistent with the study conducted in other Africa countries by (Dagget, Molla & Belachew, 2016). The result of their study indicated that an average overall job-related stress level of 58.46 ± 12.62. Beyond that, the highest level of job-related stress was dealing with death & dying mean score of 62.94 % followed by uncertainty regarding patient treatment 57.72 % and workload 57.6 %.

The result of this study showed that no significant difference exists in dying and death of patients among nurses in some selected hospitals in Maiduguri based on gender (P>0.05). This is agreed with the study of who Ezenwaji, Eseadi, Okide, Nwosu, Ugwoke, Ololo, Oforka and Oboegbulem, (2019), who reported that demographic factors like gender, age, work environment did not have influence on work-related stress and burn-out among nurses. In similar vein, a research conducted in Cyprus by Galanakis, Alexandri, Kika, Lelekanou, Papantonopoulou, Stougiannou and Tzani, (2020), found that there were no statistical differences between male and female in terms of work stress and burnout. The result of this study is also consistent with the study of Dagget, Molla and Belachew, (2016) in Ethiopia, where they found that higher overall job-related stress from dealing with death & dying sub scale followed by uncertainty regarding patient treatment and workload which is consistent with a study done in Gaza Palestine that stated death & dying and workload as the most frequent and severe occupational stressors (Hajjar, 2013).

5. Conclusion

The result of this study indicated that job-related stress among nurses in selected Maiduguri hospitals was high. The leading stress factors among the nurses are; stress levels of death and dying stressors, stress levels of discrimination stressors, stress levels of uncertainty concerning treatment stressors and stress levels of workload stressors.

6. Recommendations

- Organizations/ hospitals that employ nurses should organize programs/ seminars to monitor and manage stress especially regarding staff issues and job demands.

- Hospital management should employ enough number of nurses so as to reduce work-loads.
- Nurse managers and policy makers to paying more attention to factors such as stress levels of death and dying stressors, stress levels of discrimination stressors, stress levels of uncertainty concerning treatment stressors and stress levels of workload stressors and that reducing these factors for staff nurses in emergency departments.

References

Antoniou A-S., Ploumpi A., & Ntalla M. (2013). Occupational Stress and Professional Burnout in Teachers of Primary and Secondary Education: The Role of Coping Strategies. *Psychology* 2013. Vol.4, No.3A, 349-355. (http://www.scirp.org/journal/psych)

Bakare Q. O., Oluwole O. E., Hamzat Z. A., Olasunkanmi O. & Animashaun I. D. (2022). Occupational Stress and Coping Strategies among Nurses in Lagos State University Teaching Hospital (LASUTH), Ikeja Lagos State. *LASU Journal of Dental Sciences*. Volume 2 Issue 1

Canadian Mental Health Association, 2018.

Dagget, T., Molla, A. & Belachew, T. (2016). Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: A cross sectional study. *BMC Nurs* 15, 39. https://doi.org/10.1186/s12912-016-0158-2.

Danjin, M., Adamu S., Ribadu S. & Adam D. (2016). Work Related Stress among Hospital-Based Nurses in Sub-Urban Settings in Gombe State, Nigeria. *International Journal of Pharmacology Research*. Vol 6 | Issue 1| 2016 | 27-33. ISSN 2249 – 7641.

Ezenwaji O. I., Eseadi C., Okide C. C, Nwosu C. N., Ugwoke C. S., Ololo O. K., Oforka O. T.& Oboegbulem A.I. (2019). Work-related stress, burnout, and related sociodemographic factors among nurses: Implications for administrators, research, and policy: *Medicine Journal.*

Faremia, F. A., Olatubib, I. M., Adeniyic G. K., & Salau R.O. (2019). Assessment of occupational related stress among nurses in two selected hospitals in a city southwestern Nigeria. *International Journal of Africa Nursing Sciences*: https://www. Researchgate .net/publication/330682374.

Galanakis, M., Alexandri, E., Kika, K., Lelekanou, X., Papantonopoulou, M., Stougiannou, D., & Tzani, M. (2020). What Is the Source of Occupational Stress and Burnout? *Psychology,* 11, 647-662. https://doi.org/10.4236/psych.2020.115044.

Gray-Toft, P., & Anderson, J. G. (1981). The nursing stress scale: Development of an instrument. *Journal of Behavioral Assessment,* 3(1).

Hajjar B. A. 1 (2013.). Occupational stress among hospital nurses in Gaza-Palestine. University of Manchester; p. 1–289. Available from: https://www. escholar. manchester .ac.uk/api/datastream? publicationPid=uk-ac-man-scw: 189872&datastreamId=full-text.pdf.

Hanson, V. F., Onasoga, O. A., & Babalola, C. O. (2017). Self-reported occupational stress, environment, working conditions, on productivity, and organizational impact among of nursing staff in Nigerian Hospitals. *International Journal of Translational Medical Research and Public Health*, 1(2), 29–35.

Hanson, V. F., Onasoga, O. A., & Babalola, C. O. (2017). Self-reported occupational stress, environment, working conditions, on productivity, and organizational impact among of nursing staff in Nigerian Hospitals. *International Journal of Translational Medical Research and Public Health*, 1(2), 29–35.

Johnson S., Cooper C., Cartwright S., Donald I., Taylor P. & Millet C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*.

Khamisa N, Oldenburg B, Peltzer K, (2015). Work-related stress, burnout, job satisfaction and general health of nurses. *Int J Environ Res Public Health*; 12:652–66.

Krejcie & Morgan (1970). Sample size determining table for determining sample size for finite population.

Manabete S, John C, Makinde A, (2016). Job stress among school administrators and teachers in Nigerian secondary schools and technical colleges. *Int J Educ Learn Dev;* 4:1–9

Manabete S, John C, Makinde A, (2016). Job stress among school administrators and teachers in Nigerian secondary schools and technical colleges. *Int J Educ Learn Dev;* 4:1–9

Mansour E., Taha N., El-Araby M. & Younes H (2014). Nurses' perceived job related stress and job satisfaction in two main hospitals in Riyadh city. *Life Science Journal*;11(8) http:// www. Life sciencesite. com 336

Mojoyinola, J., K (2008). Effects of job stress on health, personal and work behaviour of nurses in Public Hospitals in Ibadan Metropolis, Nigeria. *European Journal of Scientific Research*, 21(2), 346-352.

Mojoyinola, J., K (2008). Effects of Job Stress on Health, Personal and Work Behaviour of Nurses in Public Hospitals in Ibadan Metropolis, Nigeria. *European Journal of Scientific Research*, 21(2), 346-352.

Nwabuoku, U., C & Adebayo, S.O (2010). Burnout, Empowerment, Job satisfaction in Human Services: A comparative and Correlational Study of Women. *The Social Sciences,* 5(4), 276-279.

Ogundipe, S., Obinna, C. & Olawale, G. (2015). Shortage of medical personnel: Tougher times ahead for Nigerians (1). Vanguard, January 27, 2015 p.11. Retrieved fro http://www. Vanguard ngr.com on 6th August, 2015

Ojekou G, Titilayo DO (2015). Effect of work environment on level of work stress and burnout among nurses in a teaching hospital in Nigeria. *Open JNurs* =; 5:948–55.

Omolase C.O (2010). Job stressors and coping strategies amongst medical practitioners in a Nigerian community. *Middle East Journal of Family Medicine*, 8(9), 1-6.

Omolase, C.O (2010). Job stressors and coping strategies amongst medical practitioners in a Nigerian community. *Middle East Journal of Family Medicine*, 8(9), 1-6.

Pinikahana, J., & Happell, B. (2004). Stress, burnout and job satisfaction in rural psychiatric nurses: A Victorian study. *Australian Journal of Rural Health,* 12(3), 120–125

Popov B, Majstorovic´ N, Matanovic´ J, (2016). Predictors of employees' psychophysical health and sickness absenteeism: modelling based on REBT framework. *Psihologija*; 49:67–86.

Popov B, Majstorovic´ N, Matanovic´ J, (2016). Predictors of employees' psychophysical health and sickness absenteeism: modelling based on REBT framework. *Psihologija;* 49:67–86.

Shareinia H, Khuniki F, Bloochi Beydokhti T, Eydi zeynabad A. & Hosseini M (2018). Comparison between job stress among emergency department nurses with nurses of other departments. Volume 6 (3 and 4) :48-56

Sonia A., Iman D., Farahnaz A., Ahmad B. & Davood A. (2022). Work-related stress, self-efficacy and mental health of hospital nurses. DOI:10.3233/WOR-21026.

Tajvar A., Saraji G.N., Ghanbarnejad A., Omidi L., Hosseini S.S.S. & Abadi A.S.S. (2015). Occupational stress and mental health among nurses in a medical intensive care unit of a general hospital in Bandar Abbas in 2013. *Electronic Physician*;7(3):1108.

Verdon, M., Merlanie, p., Perneger, T. & Ricou, B., (2008). Burnout in surgical ICU team. *Intensive care Med*. 34:152 - 156

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 123–137

The Tripartite Relationship among Savings, Investment and Economic Growth in Nigeria

LAWRENCE EHIKIOYA IMOUGHELE, EMUA EHIJIE IHIMEKPEN
Ambrose Alli University, Ekpoma, Edo State, Nigeria

Abstract. Despite Nigeria being regarded as the biggest economy in Africa, there have been rigorous debates on how the nexus between savings and investment can accelerate its growth sustainability. Unlike previous studies whose overreliance on simplified bivariate frameworks has constituted issues like omitted variable bias in the quest to successfully pass the diagnostic report, such approaches have hindered the true dynamic feedback of the trio and some selected control variables as it is in the real world. It is in this sense that this study investigates the dynamic interaction between savings and investment on economic growth, the extent to which a shock in savings and investment affects economic growth over time, the percentage of changes in economic growth that can be attributed to savings, investment, and other macroeconomic indicators, and the causal linkages between the underlying trio in Nigeria from 1980–2023. The study employed the Vector Autoregressive (VAR) methods, alongside Impulse Response Function (IRF), Forecast Error Variance Decomposition (FEVD), and Granger causality tests to achieve these objectives. The empirical results revealed that savings has positive and significant impact on economic growth in line with Keynesian postulations, investment showed an insignificant effect. The result further reveals the significant role of control variables such as domestic credit to the private sector and interest on lending in shaping the savings-investment-growth relationship. The IRF showed that savings shocks exert a stronger and more sustained effect on economic growth than investment shocks. Alternatively, the FEVD also revealed that variations in growth are largely explained by domestic credit to the private sector, while the Granger causality results confirmed bidirectional causality between savings and growth, as well as between savings and credit to the private sector. The study recommends that governments clamoring for growth must pay careful attention to the dynamic interaction between savings, investment, growth and the influence of certain control indicators (credits and interest on lending) that indirectly model the interdependence between the trios.

Keywords: Savings; Investment; Economic Growth; Vector Autoregression (VAR); Macroeconomic Indicators; Financial Intermediation; Harrod-Domar Model; & Structural Shocks

1. Introduction

Economic growth has been one of the major objectives cherished among nations of the world, and in attaining this objective, both governmental and private effort through expenditure and saving are necessary for its actualization (Ahamed, 2021). Despite Nigeria being regarded as the biggest economy in Africa, there have been rigorous debate on how the nexus between savings and investment can accelerate its growth sustainability.

In highly developed economies where income and savings are high, there are evidence of greater societal transformation as opposed to the economies situated in the sub-Sahara Africa (SSA) dominated by poverty, external shock and terrorism, all of which perpetuate low propensity to save among economies in the SSA region (Baafi & Asiedu, 2025). According to (Trading Economics, 2024), household savings rate in developed economies like Germany and South Korea stood at a whopping 25.7% and 32.2% with annual average Gross Domestic Product (GDP) per Capita of US$54,344 and US$33,120 in 2023 respectively.

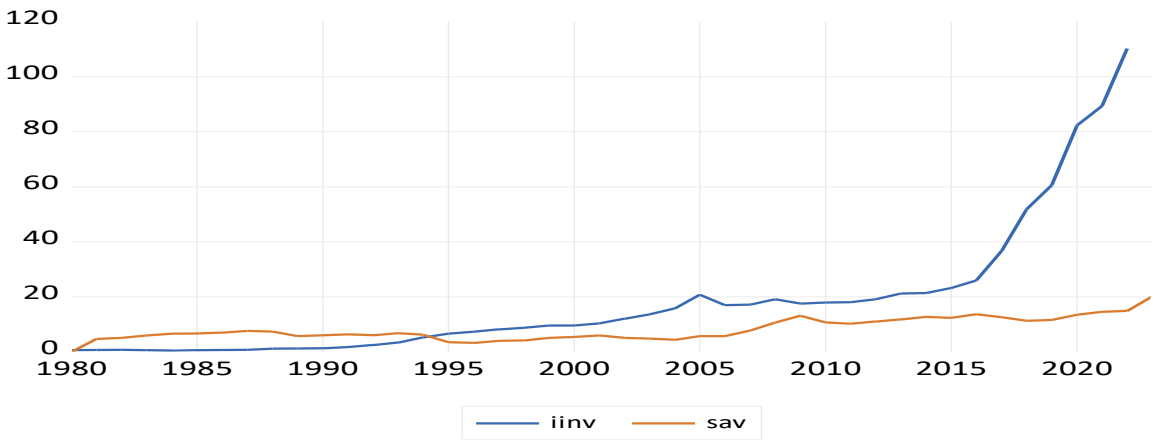
However, economies situated in sub-Saharan Africa regions' domestic savings stood at 4.1% of overall GDP, significantly lower than the high-income average of 23.8% (World Bank, 2023). It is in this context that the study of (cite) affirmed that individuals in less developed countries (LCDs) are usually unable to attain a high level of personal savings due to series of factors ranging from low per Capita income as in the case of SSA region whose GDP per Capita stood at $1,622.8 compared to high and middle income countries with GDP per Capita of $48752 and $6254 respectively (World Bank, 2023), indulgence in frivolous consumption by the few who have excess of disposable income and inconsistent policies put in place by monetary authorities. LDCs are usually overwhelmed by inequality and an inconsistent regulatory framework (UNCTAD, 2020).

It is worth noting that domestic savings and investment in Nigeria have been inconsistent and have continued in an irregular trend from the late 1990s. For instance, (CBN, 2023) documented that in 1990, total domestic savings as a ratio of GDP stood at 3.50% and maintained an upward trend until 2001 when it assumed the value of 5.93%. However, from 2002 through 2004, domestic savings fell with values of 5.15, 4.84 and 4.40 respectively but in 2010 through 2021, a rebound occurred placing domestic savings at 20.21% of GDP. Conversely, gross capital formation, a proxy for domestic investment saw a sharp collapse from its 1981 value of ₦15,789 billion to a staggering value of ₦5,688 billion in 1987. However, domestic investment rose from 2000 through 2015 reaching a peak of ₦11,445 billion in 2019.

The 2020 COVID-19 pandemic caused a temporary dip in domestic investment and domestic savings in 2020 and in 2023, both domestic savings and investment rebounded.

While fewer studies have shown that a link exist among savings, investment and economic growth (Omoregie & Ikpesu, 2017; Samuel, Oruta, Israel, & Lucky, 2021; Ayadi, 2021), a vast body of literature has focused on examining the relationship between two of the three variables, in savings and economic growth (Wanzala & Obokoh, 2024; Oyelowo et al., 2024; Eze, 2023) and in investment and economic growth (Gasmelsied & Mohammed 2024; Karimov & Huseynova, 2024; Ajayi, 2024). But none of the aforementioned study's econometrics estimation covered recent periods like the post-COVID-19 era and as such, fail to capture the structural shifts in savings behaviour, investment flows, and macroeconomic performance caused by the pandemic.

The COVID-19 crisis brought about unprecedented disruptions in financial systems, household income and investor confidence that may have altered the traditional relationships among savings, investment and economic growth in a developing country like Nigeria. Most of the prior studies failed to capture the interdependent nature of savings and investment as examined in the Harrod-Domar Model, the studies that noted the interdependent nature relied too much on simplified bivariate frameworks susceptible to omitted variable bias that is incapable of capturing dynamic feedback appropriately, thus causing a deviation from real time economic scenario that might have occurred. It is in this light that this study is primarily hinged on examining the dynamic interaction between savings and investment on economic growth, the extent to which a shock in savings and investment individually affect economic growth over time, the percentage of changes in economic growth that can be attributed to savings, investment and other macroeconomic indicators and the causal linkages between the underlying trio in Nigeria.



The rest of this study is structured as follows: next section is literature review, section three is methodology, section four is result and discussions while section five is the conclusion and recommendations.

2. Literature Review

2.1 Conceptual Clarification

2.1.1 Savings

Bolus (2021) defined savings as the proportion of income that is not immediately consumed but set aside for future use as a shield against uncertainties or as a resource for investment. Savings can also be considered as an act of postponement of immediate spending, in other to have enough to cater for the future (Felici, Kenny & Friz, 2023). The act of postponement is motivated by the desire for one to be self-insured against income shocks, for continuous consumption overtime and for bequest motives (an act of transferring wealth across generations (Sibanda, Muzavazi, Setoboli, & Tshuma, 2025).

Economic units like household, firm and government have a unique drive towards savings. For instance, household savings are influenced and self-control. (Sibanda et al., 2025) affirmed that high literacy correlates with stronger saving habit, while cooperate savings exhibit multiplier effect on sustainable economic growth as attested by (Wanzala & Obokoh, 2024) whose study suggest that a 1% rise in cooperate savings can boost gross domestic product (GDP) by over 3% in the long-run with government and household savings playing a critical role.

2.1.2 Investment

Investment is broadly defined as an addition to physical stock of capital in an economy, such as infrastructure, machinery, technology and building (Samuelson & Nordhaus, 2001). Investment is seen as a tool of aggregate demand and a prominent driver of economic growth and productivity. It is in this sense that the classical economists such as (Smith, 1776; Ricardo, 1817; Mill, 1848) saw investment as an indicator influenced by interest rate and savings, with lower interest rate prompting borrowing and investment while higher interest rate promotes savings which provide the needed capital to ensure investment. However, (Keynes, 1936) emphasized that expectation of future profitability and business confidence play a more decisive role than interest rate alone. For instance, in the analysis of the real option theory, Dixit and Pindyck (1994) opines that under uncertainty, firms may delay investment until they can obtain more information.

2.1.3 Economic Growth

Todaro and Smith (2020) defined economic growth as the rise in real (inflation-adjusted) market value of goods and services produced in an economy at a particular time period. Economic growth is pivotal in economic theory and policy because it determines a country's capacity to improve living standards, reduce poverty and promote overall wellbeing. While classical economist like Adam Smith emphasized the impact of capital accumulation, labour and specialization in driving economic growth, Neoclassical models, such as the solow growth model introduced the idea of diminishing returns to capital and emphasis the usefulness of technological progress as an exogenous factor (Solow, 1956). In contrast, endogenous growth theories put in place by (Romer, 1999; Lucas, 1988) argued that technological innovation and human capital can promote sustained long-term growth without diminishing returns. However, modern economic growth discussion highlights qualities such as inclusivity and sustainability, thus, drifting away from mere growth feature to growth in equitable form.

2.2 Theoretical Review

Since the mid 20th century, theories of savings have had a paradigm shift from income driven model to the incorporation of psychological and institutional factors. The Life-Cycle Hypothesis (LCH) propounded by (Modigliani & Brumberg, 1954) argues that individuals plan their consumption and savings over their life time, by borrowing when young, saving during their working years or dissaving in retirement. Although several empirical studies such as (Deaton, 1991; Browning & Lusardi, 1996; Attanasio & Weber, 1995) but not limited to, have disputed the LCH, emphasizing how unrealistic it can be for lower income household. It is in this sense, that Friedman's Permanent Income Hypothesis (1957) distinguish permanent income from transitory income, affirming that only anticipated income changes affect savings.

Conversely, the investment theories have surpassed mere margin-based neo-classical model to models that incorporate for uncertainty, finance and institutions. The

Neoclassical Q-Theory by (Tobin, 1969) asserts that firm will undertake investment only when the market value of capital exceeds its replacement cost, but this theory faced limitations of being a weak predictor due to the fact that market valuation are sometimes volatile and prone to speculation (Chirinko, 1993). However, recent Financial-Friction Model propounded by Stiglitz and Weiss (1981) opines that a firm facing significant credit constraint is liable to underinvest because external funds are not available to them. This imposes a major situation in developing countries like Nigeria.

Economic growth theory, once based on factor accumulation models have seen a shift towards dynamic endogenous framework. For instance, the Harrod-Domar Model by Harrod (1939) and Domar (1946) associated growth to savings and capital output ratio, suggesting that savings influence the capital needed to drive growth productivity. The Solow-Swan Model, propounded by Solow (1956) and Swan (1956) improved on the aforementioned Harrod-Domar Model by introducing technological progress as an exogenous factor with diminishing returns in capital leading to steady state growth path determined by savings, depreciation and growth in population.

2.3 Empirical Review

Wanzala and Obokoh (2024) examined the relationship between domestic savings and sustainable economic growth in South African, covering the period from 1990 to 2023. The study emphasized the vital role of savings in promoting long-term economic stability and environmental resilience. Utilizing the Autoregressive Distributed Lag (ARDL) model, the researcher's analyzed data sourced from the World Bank and the South African Reserve Bank. The findings revealed that corporate savings significantly influence sustainable economic growth, particularly in the long run. Specifically, a 1% increase in corporate savings was associated with a 3.12% rise in economic growth, underscoring the strong multiplier effect of investment. The study recommended a review of current policies to promote increased domestic savings as a means of supporting sustainable economic development.

Ahamed (2021) investigated the impact of public and private investments on the economic growth of developing countries, covering the period from 1990 to 2019. The study utilized panel data from 39 developing countries to assess the relationship. The findings revealed that public investment has a stronger positive impact on economic growth compared to private investment. Additionally, gross capital formation, labour growth, and government final consumption expenditure were found to be significant determinants of economic growth. The study concluded that both public and private investments play a vital role in driving economic growth and development in developing countries.

Using both qualitative and quantitative research methodologies, Ribaj and Mexhuani (2021) examined the relationship between savings and economic growth in Kosovo, the study analyzed data from 2010 to 2017, employing the Augmented Dickey-Fuller test, Johansen cointegration test, and Granger causality test. The unit root test confirmed stationarity of the data, and regression results indicated that deposits have a significant positive impact on Kosovo's economic growth. The study emphasized that savings stimulate investment, production, and employment, thereby fostering sustainable economic growth. Additionally, loans and remittances were found to contribute positively to economic expansion through their influence on investment. The study concluded that countries with higher national savings rates are less dependent on foreign direct investment, thereby reducing the risks associated with volatile external capital flows.

Liu and Ma (2022) investigated the impact of saving rates on economic growth in Asian countries, using panel data from 46 countries and regions between 1969 and 2021. The study analyzed the relationship using variables such as gross domestic saving rate, GDP per capita, and urban population growth rate. Results showed that the saving rate had a significant positive impact on economic growth during 1960–1990, but was insignificant from 1991–2021. Urban population growth had a stronger effect in the later period, while GDP per capita showed a consistent negative impact. Regionally, the saving rate positively influenced growth in East and South Asia, while urban population growth and GDP per capita had varying impacts across regions. The study concluded that a high saving rate remains a key driver of economic growth, especially in high- and upper-middle-income countries.

Soylu (2019) investigated the impact of savings and foreign direct investment (FDI) on economic growth in Poland over the period 1992 to 2016. The study employed the Autoregressive Distributed Lag (ARDL) bounds testing approach to analyze the

relationship. The findings revealed a cointegration relationship among the variables. A 1% increase in savings led to a 0.81% increase in the economic growth rate, while a 1% increase in FDI resulted in a 1.52% increase in growth. The study emphasized the importance of high saving rates in fostering sustainable growth and enhancing resilience to financial shocks, particularly in the context of reduced foreign financing after the global financial crisis.

In the case of Nigeria, Ugochukwu, Oruta, Israel and Lucky (2021) investigated the savings-investment-growth nexus in Nigeria from 1981 to 2020, using secondary data from the World Development Indicators and the Central Bank of Nigeria. The study employed a Vector Autoregressive (VAR) model and analyzed three separate models. Results revealed an insignificant relationship between gross domestic savings, lending rate and economic growth on gross capital formation. While GDP and lending rate significantly influenced gross domestic savings, they had no significant effect on investment. Granger causality tests showed unidirectional causality from lending rate to investment and GDP, and bidirectional causality between GDP and investment. The study attributed the weak savings-investment-growth link to inefficient financial intermediation and underutilized policy tools. The study recommended flexible and efficient use of monetary and fiscal policies that are in line with current economic realities in the country to link savings and investment efficiently and, hence, promote economic growth.

Alzghoul, Alsheikh and Yamin (2023) examined the relationship between savings and investment in Jordan from 1980 to 2020. The study employed Augmented Dickey-Fuller, Phillips-Perron, and Lumsdaine and Papell unit root tests, along with the ARDL Bounds testing approach. The findings revealed a long-run cointegration relationship between savings and investment, indicating that they are interlinked over time. The study emphasized that maintaining a stable savings supply is crucial for ensuring economic stability and guiding policy decisions.

Mahara (2022) examined the relationship between gross domestic savings, gross capital formation, and economic growth in Nepal. The study applied the ARDL cointegration method and the Zivot-Andrews unit root test to account for structural breaks. The findings revealed a positive and significant long-run relationship among the variables. The causality results showed unidirectional causality from investment to growth and from growth to savings, along with a bidirectional relationship between savings and investment. The study concluded that increasing savings and channeling them into productive investment are essential for boosting economic growth in Nepal.

Osuka, Ihejirika and Felix (2024) investigated the relationship between savings, investment, and economic development in Nigeria over the period 1990 to 2022. The study aimed to determine whether total consumption from GDP, net investment in government non-financial assets, government spending, private consumption, consumer price index, and GDP deflator significantly affect economic development. Using the Autoregressive Distributed Lag (ARDL) model, the results revealed that in the short run, GDP per capita positively impacted economic development, while domestic savings had an insignificant or negative effect. In the long run, domestic savings had a weak negative effect, investment showed a strong negative impact, and consumption had a strong positive relationship with economic development. Inflation and interest rates exhibited weak negative effects. The study recommended that macroeconomic policies be adopted to improve the domestic investment climate and ensure its positive contribution to economic development in Nigeria.

Solomon (2024) analyzed the impact of national savings on economic growth in Nigeria from 1990 to 2020. The study aimed to determine whether national savings significantly affect Nigeria's GDP. Using secondary data from the CBN Statistical Bulletin and applying the Ordinary Least Squares (OLS) method along with the Augmented Dickey-Fuller test and Johansen cointegration test, the study found a positive and significant relationship between national savings and economic growth. Conversely, inflation had a negative but significant effect on GDP. The study recommended that policymakers improve citizens' income levels and develop the financial sector to encourage savings and promote economic growth.

Kuhe (2024) investigated the causal relationship between domestic savings, domestic investment, and economic growth in Nigeria from 1970 to 2015. The objective was to examine both the short-run and long-run interactions among these variables. Using Augmented Dickey-Fuller tests, Johansen

cointegration, Fully Modified Least Squares, Vector Error Correction Model (VECM), and Toda-Yamamoto Granger causality tests, the study found that all variables were cointegrated. The results showed that domestic investment had a positive and significant long-run impact on economic growth, while the short-run impacts of domestic savings and investment were limited but persistent. Bidirectional causality existed between investment and growth, and between savings and investment, but not between savings and growth in the short run. The study recommended policies that prioritize investment-led growth, supported by savings mobilization for long-term development.

3. Methodology

The study is hinged on the Harrod-Domar growth Model that links economic growth to the level of savings and productivity of capital. To empirically examine the objectives of this study, secondary data spanning from 1980 – 2024 were utilized. These data are sourced from the Central Bank Statistical Bulletin (CBN) and the World Bank development indicator (WDI). The key indicator employed in this study includes growth rate of gross domestic product (GDP) (a proxy for economic growth), gross domestic savings as a percent of GDP (SAV) and gross capital formation (GCF) (a proxy for domestic investment). While control variables used in the study include Domestic Credit to Private Sector (DCP), Interest on Lending (LIN) and broad money (BMM)

3.1 Analytical Techniques

Given the likelihood of mutual interaction among the indicators in the model, the study adopts the Vector Autoregression (VAR) method. VAR is exceedingly suitable for estimating independent indicators (Sims, 1980). Prior to estimation, the Augmented Dickey Fuller (ADF) and the Philip-Peron (PP) technique will be employed to determine the order of integration among indicators in the model. If all indicators are stationary at I(0), the VAR model is estimated at level, if all indicators are stationary at I(1) and not cointegrated then the VAR model is estimated at first difference, however, if some or all the indicators are integrated of I(1) and cointegration is present, then the Vector Error Correction Model is employed instead (Gujarati & Porter, 2009).

The VAR Granger Causality/Block Exogeneity Wald Tests was also tested to see the direction of causation among the variables. The dataset was also examined for the presence of a long-run relationship among the variables by performing the Johansen co-integration test. Additionally, the impulse response function and variance decomposition were employed to analyze the effects of shocks and the variability caused by the variable itself as well as by other variables. An inverse root graph was generated to assess the stability or stationarity of the VAR model and to verify the reliability of the impulse response functions. Lastly, diagnostic tests were conducted to check for serial correlation and heteroskedasticity in the residuals.

3.2 Model Specification

As aforementioned above, the study relied on the Harrod-Domar Model with a baseline model specification

$$GR_t = \alpha + \beta_1 S_t + \beta_2 K_t + \beta_n X_t + e_1 \quad (3.1)$$

$$S_t = I_1 \quad (3.2)$$

Where

GR_t = Current Real Gross Domestic Product

S_t = Current Gross Domestic Savings as a percent of GDP

K_t = Current Capital Output Ratio

X_t = Other current Control Variables

$\beta_1 - \beta_n$ = Coefficient and Parameter of Estimate

e_1 = Error terms

One major assumption in Harrod-Dorma model is the equality of savings and investment, suggesting that savings drives investment. However, in other to examine the objectives of the study, the above model is extended to include indicators that improve the predictability of the model. The model is stated in its explicit form as;

$$GDP = f(INV, SAV, DCP, LIN, BMM,) \quad (3.3)$$

And in its econometrics form as

$$GDP_t = \beta_0 + \beta_1 INV_t + \beta_2 SAV_t + \beta_3 DCP_t + \beta_4 LIN_t + \beta_5 BMM_t + e_t \quad (3.4)$$

Where

GDP_t = Current Growth Rate of Gross Domestic Product

INV_t = Current Domestic Investment as a percent of GDP

SAV_t = Current Domestic Savings as a percent of GDP

DCP_t = Current Domestic Credit to Private Sector

LIN_t = Current Interest Rate on Lending

BMM_t = Current Broad Money

$\beta_1 - \beta_5$ = Parameters

e_t = Error Term

The parameter β_1 - $\beta_3 > 0$ while β_3 and $\beta_4 < 0$. Affirming the theoretical prediction of Harrod-Domar that asserts that higher savings creates higher investment necessary for promoting growth while higher interest rate (in terms of interest on lending) and inflation rate (in terms of increase money supply) imped growth.

The general VAR model is specified as follows:

$$\boldsymbol{lGDP_t = \alpha_1 \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + e_t}$$

$$\boldsymbol{lINV_t = \alpha_2 \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + e_t}$$

$$\boldsymbol{lSAV_t = \alpha_2 \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + e_t}$$

$$\boldsymbol{lDCP_t = \alpha_2 \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + e_t}$$

$$\boldsymbol{lLIN_t = \alpha_2 \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + e_t}$$

$$\boldsymbol{lBMM_t = \alpha_2 \sum_{l=1}^{k} \beta_j\, lBMM_{t-j} + \sum_{l=1}^{k} \beta_j\, lGDP_{t-j} + \sum_{l=1}^{k} \beta_j\, lINV_{t-j} + \sum_{l=1}^{k} \beta_j\, lSAV_{t-j} + \sum_{l=1}^{k} \beta_j\, lDCP_{t-j} + \sum_{l=1}^{k} \beta_j\, lLIN_{t-j} + e_t}$$

Where:
$lGDP_t$ = log of Growth Rate of Gross Domestic Product
$lINV_t$ = log of Domestic Investment as a percent of GDP
$lSAV_t$ = log of Domestic Savings as a percent of GDP
$lDCP_t$ = log of Domestic Credit to Private Sector
$lLIN_t$ = log of Interest Rate on Lending
$lBMM_t$= log of Current Broad Money
e_t= Stochastic Error or Shock in VAR

4. Result and Discussion

4.1 Unit Root

Table 1 reveals the result of the Augmented Dickey-Fuller and Philip-Peron unit root test. The results suggest that all indicators employed (LGDP, LINV, LSAV, LDCP, LIN and LBMM) became stationary after first difference. Given that all indicators are stationary after first difference, it is highly imperative to subject the model to cointegration test to ascertain if a long-run relationship exist (Gujarati & Porter, 2009). Hence, it is equally important to determine the optimal lag length as analysis continues.

Table 1: Unit Root Output for Augmented Dickey-Fuller and Philip Peron Approach

Variables	ADF T-Bar	PP	Remarks
LGDP	-12.234 (0.0000) ***	-13.183 (0.0000) ***	I (1)
LINV	-14.913 (0.0000) ***	-14.703 (0.0000) ***	I (1)
LSAV	-10.231 (0.0000) ***	10.183 (0.0000) ***	I (1)
LDCP	-5.485 (0.0000) ***	-3.837 (0.0053) ***	I (1)
LIN	-5.608 (0.0000) ***	-7.143 (0.0000) ***	I (1)
LBMM	-6.933 (0.0000) ***	-8.643 (0.0000) ***	I (1)

Source: Author's computation (2025). Note***, **, *denotes 1%, 5% and 10% level of significant while the P-value is enclosed by the parenthesis.

4.2 VAR lag Order Selection Criteria Output

Table 3 reveals the optimal lag structure of the VAR model. The result suggests that all selection criteria (LR, FPE, AIC, SC and HQ) selected the optimum lag length of 1 and 5% level of significance. Thus, the lag length "1" will be used to estimate the cointegration test and the VAR output.

Table 2: Optimal VAR lag Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-433.1986	NA	138.7575	21.95993	22.21326	22.05152
1	-338.9236	155.5536*	7.696447	19.04618	20.81950*	19.68736*
2	-293.4815	61.34689*	5.438710	18.57407	21.86739	19.76483
3	-250.0037	45.65171	5.317539*	18.20018*	23.01349	19.94052

Source: *Author's computation (2025) using E-Views 12*

4.3 Johansen Cointegration Test

Table 3 shows the output of the Johansen Contegration test of both the Trace statistics and Max-Eigen statistics. The result fails to reject the null hypothesis, suggesting that the indicators ((LGDP, LINV, LSAV, LDCP, LIN and LBMM) have no long-run relationship/cointegration. The revealed result of the cointegration test affirmed the use of VAR approach for this analysis.

Table 3: Output of the Johansen Cointegration Test

Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**
89.93646	95.75366	0.1175	28.28375	40.07757	0.5417
61.65271	69.81889	0.1881	23.51431	33.87687	0.4915
38.13840	47.85613	0.2960	19.65127	27.58434	0.3658
18.48713	29.79707	0.5302	11.89515	21.13162	0.5581
6.591979	15.49471	0.6255	6.244755	14.26460	0.5820
0.347224	3.841465	0.5557	0.347224	3.841465	0.5557

Source: *Author's computation (2025) using E-Views 12*

4.4: Vector Autoregressive Model Output (VAR)

Table 4 shows the VAR output. The result reveals that the past realization of LGDP is associated with 44.98% increase in current LGDP, implying that the past realization of LGDP has a moderate influence in determining current LGDP. The result further discloses that a percentage increase in LSAV account for a 473% increase in LGDP. Additionally, the past realization of LINV, LSAV, LDCP, LIN and LBMM is accompanied with a 53%, 55%, 69%, 74% and 193% increase in their respective current indicators. This suggest that all indicators significantly influence themselves individually. LDCP and LIN shows a weak significant influence on LSAV, suggesting that a percentage rise in both indicators (domestic credit to private sector and interest on lending) accounts for a 15% and 2% decrease in LSAV respectively.

LSAV exert a strong negative influence on LDCP and a strong positive influence in LBMM, suggesting that a percent increase in LSAV is associated with a 51.5% decrease in LDCP and 61% increase in LBMM respectively.

Table 4: Vector Autoregressive Model Output (VAR)

	LGDP	LINV	LSAV	LDCP	LIN	LBMM
LGDP(-1)	0.449881	0.049079	0.009992	-0.004533	0.049226	-0.001072
	(0.14693)	(0.14913)	(0.00592)	(0.01481)	(0.09775)	(0.02266)
	[3.06194]	[0.32911]	[1.68811]	[-0.30612]	[0.50360]	[-0.04732]
LINV(-1)	-0.044604	0.530104	0.001855	-0.013023	0.099094	0.004415
	(0.18013)	(0.18283)	(0.00726)	(0.01816)	(0.11984)	(0.02778)
	[-0.24762]	[2.89941]	[0.25568]	[-0.71730]	[0.82687]	[0.15892]
LSAV(-1)	4.734904	-2.121457	0.555772	-0.514665	0.762320	0.610993
	(1.54500)	(1.56813)	(0.06224)	(0.15572)	(1.02788)	(0.23830)
	[3.06467]	[-1.35286]	[8.92923]	[-3.30516]	[0.74165]	[2.56399]
LDCP(-1)	1.965021	0.247109	-0.157053	0.690268	0.603653	-0.289529
	(1.19085)	(1.20868)	(0.04797)	(0.12002)	(0.79226)	(0.18367)
	[1.65010]	[0.20445]	[-3.27366]	[5.75117]	[0.76193]	[-1.57632]
LIN(-1)	0.125163	0.027919	-0.019246	0.004153	0.742272	0.035565
	(0.15844)	(0.16081)	(0.00638)	(0.01597)	(0.10541)	(0.02444)
	[0.79000]	[0.17362]	[-3.01536]	[0.26007]	[7.04204]	[1.45539]
LBMM(-1)	-0.947034	-1.005514	0.054858	0.045980	-0.404302	0.008741
	(1.05022)	(1.06595)	(0.04231)	(0.10585)	(0.69871)	(0.16198)
	[-0.90174]	[-0.94330]	[1.29659]	[0.43439]	[-0.57864]	[0.05396]
C	-12.74362	4.163517	1.528434	1.688263	2.522542	1.937093
	(6.20877)	(6.30174)	(0.25013)	(0.62576)	(4.13066)	(0.95763)
	[-2.05252]	[0.66069]	[6.11062]	[2.69792]	[0.61069]	[2.02280]

Source: *Author's computation (2025) using E-Views 12*

4.5 Impulse Response

Fig 4.1 reveals the output of the impulse response function (IRF) for each of the indicators, the vertical and horizontal axis measures the response and the number of periods passed after impulse. Ten period was evaluated, with period 1-5 as short-term and period 6-10 as long-term period. The response of (LGDP to LSAV) indicates that a shock to LSAV (savings) lead to a positive response in LGDP (economic growth) with an immediate impact at the short-term period 2. However, the effect diminishes gradually overtime, with response declining to near zero at period 10. This suggest that the effect of LSAV shock on LGDP is positive but decline overtime, indicating short-term responsiveness with decreasing influence in the long-run.

Conversely, the response of (LGDP to LINV) suggests that a shock to LINV (investment) lead to a mild immediate positive response in LGDP (economic growth) with 0.001 in the short-term period and no influence in the long-run. In response of (LGDP to LDCP), it is seen that a shock in LDCP (domestic credit to private sector) produced a positive response to LGDP in the short-term assuming values of about 0.7 in period 1, 0.5 in period 4 and a diminishing value of about 0.01 and 0 in period 8 and 10. Additionally, in response of (LGDP to LIN), a shock in LIN (interest on lending) produced an immediate positive response to LGDP in the short-term (period 2) and it assumed a dwindling value in subsequent periods.

Other result reveals a negative response of (LBMM to LDCP, LBMM to LINV), (LSAV to LDCP), (LSAV to LIN) and (LINV to LSA) to a shock to their respective indicators across periods. An immediate negative response in short-term before a mild positive response in subsequent periods for (LGDP to

LBMM), (LINV to LBMM), (LIN to LBMM), (LDCP to LIN), (LIN to LSAV), (LDCP to LGDP), (LSAV to LGDP), a strong positive response in short-term period followed by period of dip response in long-run for (LINV to LGDP), (LIN to LGDP), (LIN to LINV), (LDPC to LINV), (LBMM to LSAV), (LBMM to LIN), (LSAV to LBMM). However, a strong negative response in immediate period followed by a positive response in the long-term period. While a strong positive response occurs from the immediate period to the long-term period as in the case of (LIN to LDCP) and (LDCP to LIN).

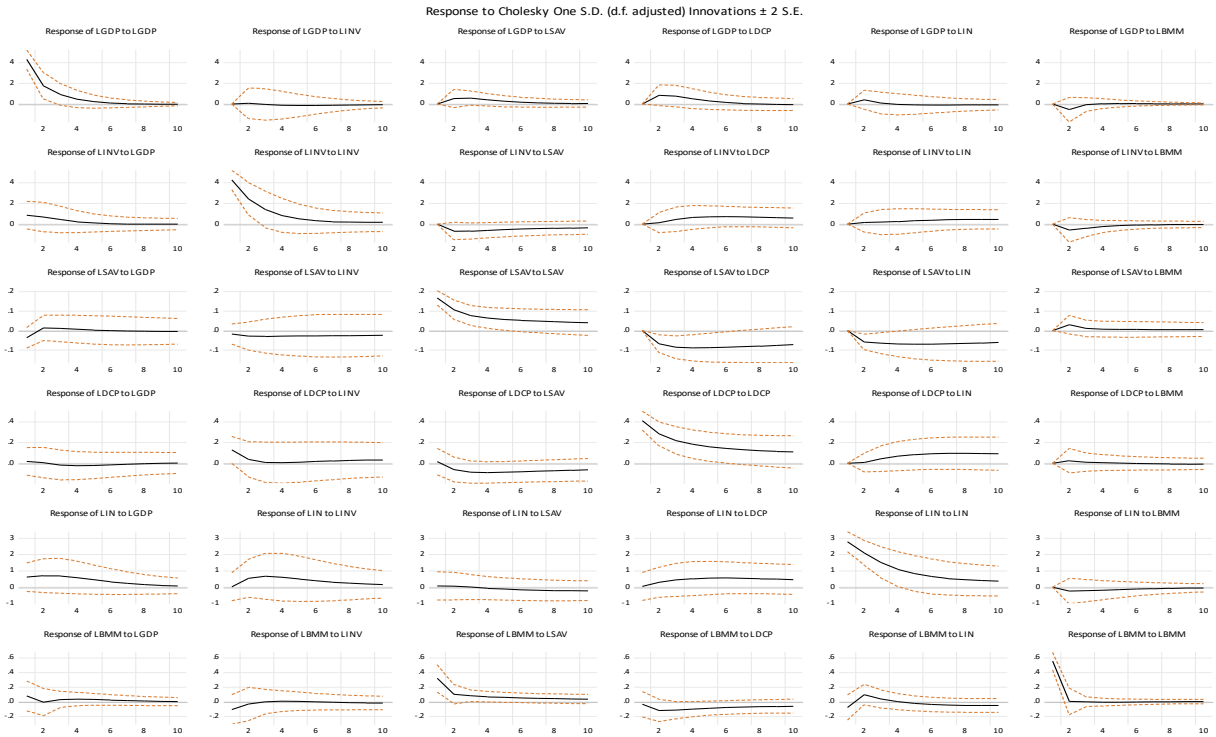


Fig 4.1 Impulse Response Output
Source: Author's computation (2025) using E-Views 12

4.6. Variance Decomposition

Table 5 depicts the proportion of forecast variance of the indicators analyzed that is attributable to shocks in each of the indicators present in the system. Period 1-5 will be referred to as the short-term period, while period 6-10 will be referred to as the long run period. In Table 5, the result reveals that in period 1, 100% of forecast error of LGDP is explained by itself, thus suggesting a strong exogeneity in the other indicators. Period 4, 6 and 10 further reveals the perceived weakness of the other indicators in influencing LGDP, thus, suggesting that LGDP shows a continuous influence itself from the short-run period into the future.

Table 5.1 reveals that in period 5, the indicators (LGDP, LSAV, LDCP, LIN and LBMM) accounts for 4.6%, 4.85, 3.6%, 0.7% and 1.7% of LINV respectively, with 4.1%, 6.6%, 9.2%, 3.2% and 1.5% for period 10. This suggest that LINV is weakly influence by these indicators. Table 5.2 indicates that in period 5, LGDP, LINV, LDCP, LIN and LBMM accounts for 1.7%, 3.3%, 26.3%, 16.3% and 1.1% of LSAV respectively, with 1.0%, 4.0%, 34.2%, 22.5% and 0.8% for period 10. This suggest that LDCP and LIN is showing a strong influence on LSAV in the short-term period into the future.

Table 5.3 reveals that in period 5, LGDP, LINV, LSAV, LIN and LBMM accounts for 0.4%, 4.4%, 6.3%, 3.3% and 0.2% of LDCP respectively, with 0.3%, 4.0%, 9.1%, 10.2% and 0.2% for period 10. This shows that LSAV and LIN weakly influenced LDCP in the short-term and long-run period while other indicators show no significant influence. Table 5.4 indicates that in period 5, LGDP, LINV, LSAV, LDCP and LBMM accounts for 9.3%, 6.7%, 0.1%, 4.3% and 0.7% of LIN respectively, with 8.9%, 7.4%, 0.9%, 9.4% and 0.7% for period 10. This indicates that LGDP and LINV have a weak influence on LIN in both the short-term and long-run periods. Finally, table 5.5 reveals that in period 5, LGDP, LINV, LSAV, LDCP and LIN accounts for 1.9%, 2.3%, 24.7%, 8.7% and 3.3% of LBMM respectively, with 1.9%, 2.1%,

24.5%, 11.9% and 4.9% for period 10. This shows that LSAV and LDCP moderately influenced LBMM in the short-term and long-run period while other indicator's influences is insignificant.

Table 5: Variance Decomposition Output

Variance Decomposition of LGDP:							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	5.079956	88.23435	0.158241	3.297295	6.445749	0.750294	1.114071
		(12.6448)	(7.94023)	(3.89071)	(6.44946)	(4.37443)	(2.72953)
10	5.099349	87.61193	0.349249	3.515686	6.521775	0.869387	1.131975
		(16.2954)	(10.3875)	(4.31202)	(7.13628)	(5.81855)	(2.71824)

Table 5.1

Variance Decomposition of LINV							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	5.674333	4.584944	84.60358	4.826742	3.574464	0.712105	1.698166
		(8.49666)	(12.0992)	(4.61563)	(6.94104)	(4.72344)	(2.85905)
10	6.040015	4.050422	75.39516	6.558251	9.231442	3.226751	1.537972
		(8.93059)	(14.7899)	(6.84169)	(10.0193)	(7.84352)	(3.00821)

Table 5.2

Variance Decomposition of LSAV							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	0.323125	1.657856	3.316724	51.26034	26.33275	16.31896	1.113376
		(6.30721)	(10.0657)	(13.0133)	(15.7518)	(9.60566)	(2.66091)
10	0.413918	1.033064	3.930849	37.56674	34.19757	22.49748	0.774294
		(8.49830)	(11.8071)	(13.8720)	(18.5471)	(13.7287)	(2.79929)

Table 5.3

Variance Decomposition of LDCP							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	0.648534	0.382341	4.359616	6.294008	85.44861	3.319383	0.196042
		(6.59166)	(8.81505)	(6.95544)	(14.8710)	(6.30896)	(1.98072)
10	0.757214	0.338438	3.872952	9.126780	76.26181	10.23321	0.166806
		(8.64029)	(10.4148)	(7.86035)	(19.1423)	(10.7087)	(2.15815)

Table 5.4

Variance Decomposition of LIN							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	4.569713	9.294113	6.708000	0.128777	4.278823	78.86399	0.726301
		(12.5953)	(11.2554)	(3.46437)	(7.99145)	(15.5719)	(2.71288)
10	4.935407	8.907190	7.395298	0.884990	9.355710	72.72289	0.733918
		(12.5894)	(13.2592)	(5.02128)	(11.2768)	(17.5762)	(2.91020)

Table 5.5

Variance Decomposition of LBMM							
Period	S.E.	LGDP	LINV	LSAV	LDCP	LIN	LBMM
5	0.726242	1.900678	2.262635	24.70074	8.674009	3.323902	59.13804
		(5.48053)	(7.78357)	(9.22040)	(8.84666)	(4.41542)	(10.9731)
10	0.756822	1.938978	2.192195	24.52286	11.96166	4.923936	54.46037
		(7.48107)	(9.59769)	(9.23573)	(11.4712)	(6.90734)	(13.2368)

Source: *Author's computation (2025) using E-Views 12*

4.7. Diagnostic Test

This subsection depicts the diagnostic test of VAR residual serial correlation LM test, Inverse Roots of AR, and VAR residual heteroskedasticity test respectively. The outcome of the VAR residual serial correlation LM test and VAR residual heteroskedasticity test indicates that the model is free from absurdity. There is absence of second order serial correlation and heteroskedasticity in the model as the p-value of the VAR residual serial correlation LM test in the second order and VAR residual

heteroskedasticity test are above 5%. Furthermore, Figure 4.2. Shows the graph of the AR inverse root of the vector autoregressive (VAR) model. The graph reveals that all the polynomial roots fall within the unit circle, suggesting that the VAR model is stationary and stable.

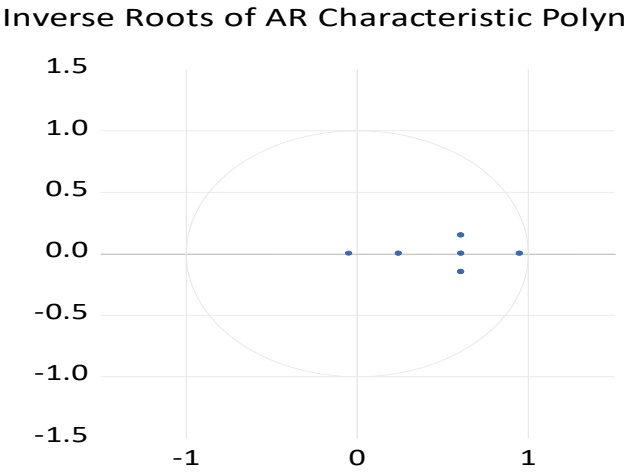


Fig 4.2 Graph of AR Inverse Root
Source: Author's computation (2025) using E-Views 12

Table 6: VAR Residual Serial Correlation LM Tests

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	66.06771	36	0.0016	2.089039	(36, 108.2)	0.0019
2	50.30579	36	0.0571	1.486332	(36, 108.2)	0.0616

Source: *Author's computation (2025) using E-Views 12*

Table 7: VAR Residual Heteroskedasticity Tests

Chi-sq	df	Prob.
270.3087	252	0.2044

Source: *Author's computation (2025) using E-Views 12*

4.8. Granger Causality Test

Table 8 reveals the result of the VAR granger causality/clock exogeneity wald test between the indicators (LGDP, LINV, LSAV, LDCP, LIN and LBMM). The test result suggests the existence of a bidirectional causality from (LGDP to LSAV) implying that economic growth causes savings and savings on the other hand causes economic growth as the p-value is less than 5%. This affirms with the Keynesian hypothesis that opine that growth induced savings as illustrated in the studies (Rasmidatta, 2011; Sekantsi, & Kalebe, 2015). The result further shows a bidirectional causal relationship from (LSAV to LDCP) and a unidirectional causal relationship from (LSAV to LIN), indicating that savings cause domestic credit to private sector and domestic credit to private sector causes savings and savings cause interest on lending.

Table 8: VAR Granger Causality/Block Exogeneity Wald Tests

	Chi-sq	df	Prob.
LGDP - LINV	0.061315	1	0.8044
LGDP - LSAV	9.392208	1	0.0022***
LGDP - LDCP	2.722837	1	0.0989
LGDP - LIN	0.624097	1	0.4295
LGDP - LBMM	0.813144	1	0.3672
LINV - LGDP	0.108315	1	0.7421
LINV - LSAV	1.830222	1	0.1761
LINV - LDCP	0.041798	1	0.8380
LINV - LIN	0.030143	1	0.8622
LINV - LBMM	0.889819	1	0.3455

LSAV - LGDP	2.849719	1	0.0914*
LSAV - LINV	0.065370	1	0.7982
LSAV - LDCP	10.71685	1	0.0011***
LSAV - LIN	9.092397	1	0.0026***
LSAV - LBMM	1.681155	1	0.1948
LDCP - LGDP	0.093707	1	0.7595
LDCP - LINV	0.514518	1	0.4732
LDCP - LSAV	10.92408	1	0.0009***
LDCP - LIN	0.067636	1	0.7948
LDCP - LBMM	0.188694	1	0.6640
LIN - LGDP	0.253612	1	0.6145
LIN - LINV	0.683712	1	0.4083
LIN - LSAV	0.550038	1	0.4583
LIN - LDCP	0.580544	1	0.4461
LIN - LBMM	0.334828	1	0.5628
LBMM - LGDP	0.002239	1	0.9623
LBMM - LINV	0.025256	1	0.8737
LBMM - LSAV	6.574070	1	0.0103**
LBMM - LDCP	2.484774	1	0.1150
LBMM - LIN	2.118162	1	0.1456

Source: Author's computation (2025) using E-Views 12
Note: See Appendix I; ***, **, *denotes 1%, 5% and 10% level of significant

5. Conclusion and Recommendations

The study examined the dynamic interaction between savings, investment and economic growth in Nigeria, it further examines the extent to which a shock in savings and investment individually affect economic growth over time using Impulse response function (IRF), to determine what percentage of changes in economic growth that can be attributed to savings, investment and other macroeconomic indicators using forecast error variance decomposition (FEVD) as well as the granger causality link between the underlying trio in Nigeria. The VAR output result revealed that the indicators studied, positively influences themselves and further shows that savings (LSAV) promotes growth (LGDP) in Nigeria in affirmation to the Keynesian theory while the influence of investment (LINV) is insignificant. Also control variables like domestic credit to private sector (LDCP) and interest on lending (LIN) significantly imped savings, the result finally uncovers LSAV impeding LDCP but promoting money supply (LBMM). The impulse response showed that a shock to savings has a substantial positive influence on economic growth in the short-term but this influence wanes overtime in Nigeria. In contrast, a shock in investment is statistically detectable but economically suggest a negligible positive influence that is confined to the immediate short-term period, thus not contributing meaningfully to sustained growth, this implies that savings shock affect growth to a much greater extent than investment shock in the model. The variance decomposition revealed that domestic credit to private sector (LDCP) account more for the variation in economic growth (LGDP), domestic credit to private sector account more for the variation in investment (LINV), domestic credit to private sector account more for the variation in savings (LSAV), interest on lending (LIN) account more for the variation in domestic credit to private sector while savings account more for the variation in money supply (LBMM). The granger causality test shows the existence of a bidirectional causality from (LGDP to LSAV) implying that economic growth causes savings and savings on the other hand causes economic growth, the result further shows a bidirectional causal relationship from (LSAV to LDCP) and a unidirectional causal relationship from (LSAV to LIN), indicating that savings cause domestic credit to private sector and domestic credit to private sector causes savings and savings cause interest on lending. This study aligns with the study of (Omoregie & Ikpesu, 2017; Eigbiremolen, 2014)

Given the findings from this study, it is imperative that government clamoring for growth must pay careful attention to the dynamic interaction between LSAV and LINV and the influence of certain control indicators (credits and interest on lending) that indirectly model the interdependence between the trio. It must be therefore noted that this study concentrates on one particular country of interest using time series analysis, thus, necessitating the need for further research that focuses on panel analysis of multi-country.

References

Ahamed, F. (2021). *Impact of public and private investments on economic growth of developing countries* [Preprint]. arXiv. https://arxiv.org/abs/2105.14199

Ajayi, K. J. (2024). Foreign direct investment and growth in ECOWAS: An ARDL panel analysis. *Journal of Energy Management and Technology, 30*(12), 1–16. https://doi.org/10.9734/jemt/2024/v30i121254

Alzghoul, A., Alsheikh, G. A. A., & Yamin, I. (2023). The relationship between savings and investment: Evidence from Jordan. *International Journal of Professional Business Review, 8*(3), Article 3.

Attanasio, O. P., & Weber, G. (1995). Is consumption growth consistent with intertemporal optimization? Evidence from the Consumer Expenditure Survey. *Journal of Political Economy, 103*(6), 1121–1157.

Ayadi, F. S. (2021). Financial development, savings and economic growth in Nigeria. *Savings and Development, 43*(1), 18–30.

Baafi, J. A., & Asiedu, M. K. (2025). The synergistic effects of remittances, savings, education and digital financial technology on economic growth in Sub-Saharan Africa. *Journal of Electronic Business & Digital Economics, 4*(1).

Browning, M., & Lusardi, A. (1996). Household saving: Micro theories and micro facts. *Journal of Economic Literature, 34*(4), 1797–1855.

Bulus, M. A. (2021). Testing the relationship between private savings and economic growth in Bahrain. *Global Journal of Commerce and Management Perspective, 4*(6), 1–6.

Chirinko, R. S. (1993). Business fixed investment spending: Modeling strategies, empirical results, and policy implications. *Journal of Economic Literature, 31*(4), 1875–1911.

Deaton, A. (1991). Saving and liquidity constraints. *Econometrica, 59*(5), 1221–1248. https://www.jstor.org/stable/2938366

Dixit, A. K., & Pindyck, R. S. (1994). *Investment under uncertainty*. Princeton University Press.

Eigbiremolen, G. O. (2014). Savings, investment and economic growth in Nigeria: A forecast error variance decomposition analysis. *African Journal of Economic and Sustainable Development, 3*(2), 103–116.

Eze, C. G. (2023). Impact of human capital investment on economic growth in Nigeria: Econometric approach of Autoregressive Distributive Lag Model (ARDL). *World Journal of Advanced Research and Reviews, 18*(2), 1096–1110.

Felici, M., Kenny, G., & Friz, R. (2023). Consumer savings behaviour at low and negative interest rates. *European Economic Review, 157*, Article C.

Gasmelsied, M., & Mohammed, A. (2024). Analyzing GDP growth drivers in Saudi Arabia: Investment or consumption? An evidence-based ARDL-bound test approach. *Sustainability, 16*(9), 3786.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill Education.

Joshi, A., Pradhan, S., & Bist, J. P. (2019). Savings, investment, and growth in Nepal: An empirical analysis. *Financial Innovation, 5*(1), Article 39.

Karimov, M., & Huseynova, E. (2024). The impact of foreign direct investment on economic growth in Türkiye: ARDL approach. *Acta Academica Karviniensia, 24*(1).

Keynes, J. M. (1936). *The general theory of employment, interest, and money*. Macmillan.

Kuhe, D. A. (2020). Cointegration and causality inferences on domestic savings, investment and economic growth in Nigeria. *Mediterranean Journal of Basic and Applied Sciences, 4*(2), 54–71.

Liu, M., & Ma, Q.-P. (2022). The impact of saving rate on economic growth in Asian countries. *National Accounting Review, 412*, 412–427.

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics, 22*(1), 3–42.

Mahara, T. S. (2022). Nexus between savings, investment and economic growth in Nepal (1975–2020): Evidence from ARDL bounds testing approach. *Quest Journal of Management and Social Sciences, 4*(1), 144–159.

Mill, J. S. (1848). *Principles of Political Economy*.

Omoregie, O. K., & Ikpesu, F. (2017). Dynamic interaction between savings, investment and economic growth in Nigeria: A vector autoregressive

(VAR) approach. *Journal of Developing Areas, 51*(3), 267–280.

Osuka, B. O., Ihejirika, P. O., & Felix, O. E. (2024). Savings, investment and economic development in Nigeria. *POLAC Economic Review, 4*(1), 265–273.

Oyelowo, O. Y., Afolabi, B., Balogun, A. A., Oyamendan, A., Olanipon, O. O., Olokor, C., & Ebhoaye, S. O. (2024). Financial inclusion and economic growth in Sub-Saharan Africa: A panel ARDL and Granger non-causality approach. *[Journal Name], 20*(6).

Rasmidatta, P. (2011). The relationship between domestic saving and economic growth and convergence hypothesis: Case study of Thailand. *[Journal Name]*.

Ribaj, A., & Mexhuani, F. (2021). The impact of savings on economic growth in a developing country (the case of Kosovo). *Journal of Innovation and Entrepreneurship, 10*, 1–13.

Ricardo, D. (1817). *On the principles of political economy and taxation*.

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy, 98*(5, Part 2), S71–S102.

Samuel, U. D., Oruta, I. L., Israel, V. C., & Lucky, E. A. (2021). Understanding the nexus between savings, investment and economic growth in Nigeria: An empirical analysis. *Path of Science, 7*(10), 2017–2030.

Samuelson, P. A., & Nordhaus, W. D. (2001). *Economics* (17th ed., p. 442). McGraw-Hill.

Sekantsi, L. P., & Kalebe, K. M. (2015). Savings, investment and economic growth in Lesotho: An empirical analysis. *Journal of Economics and International Finance, 7*(10), 213–221.

Sibanda, E., Muzavazi, T. A., Setoboli, T., & Tshuma, N. (2025). Assessing the impact of financial literacy on savings behavior in the informal sector. *Economics*, 2889–2899.

Sims, C. A. (1980). Macroeconomics and reality. *Econometrica, 48*(1), 1–48.

Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*.

Solomon, O. (2024). Impact of savings on economic growth in Nigeria (1990–2020). *POLAC Economic Review, 4*(1), 12.

Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics, 70*(1), 65–94.

Soylu, Ö. B. (2019). Do foreign direct investment and savings promote economic growth in Poland? *Economics and Business Review, 5*(4), 3–22.

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review, 71*(3), 393–410.

Ugochukwu, S. D., Oruta, L. I., Israel, V. C., & Lucky, E. A. (2021). Understanding the nexus between savings, investment and economic growth in Nigeria: An empirical analysis. *Traektoriâ Nauki = Path of Science, 7*(10).

Wanzala, R. W., & Obokoh, L. O. (2024). Savings and sustainable economic growth nexus: A South African perspective. *Sustainability, 16*(20), 8755. https://doi.org/10.3390/su16208755

World Bank. (2023). *World Development Indicators: Gross domestic savings (% of GDP)*. https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 139–148

Effects of Physical Activity on Mental Health and Cognitive Function: A Review of Current Evidence

O. O. OLUBODE, ABDULSALAM ABDULLAH
University of Maiduguri, Nigeria

Abstract. The relationship between physical activity and mental health has attracted sustained scientific interest, with a rapidly expanding evidence base charting both the psychological benefits of regular exercise and the neurobiological mechanisms through which movement shapes brain structure and function. This narrative review synthesises peer-reviewed literature published between 2015 and 2026 examining the effects of physical activity on mental health outcomes — including depression, anxiety, stress, and subjective well-being — and on cognitive functions encompassing executive function, memory, attention, and processing speed across the lifespan. Six primary mechanistic domains are reviewed: monoaminergic and endocannabinoid neurochemistry, hypothalamic-pituitary-adrenal axis modulation, neuroplasticity and brain-derived neurotrophic factor upregulation, anti-inflammatory effects, psychosocial and self-efficacy pathways, and sleep-mediated mechanisms. Evidence from randomised controlled trials, longitudinal cohort studies, and meta-analyses consistently supports the conclusion that regular moderate-to-vigorous physical activity produces clinically meaningful improvements across mental health and cognitive outcome domains, with effect sizes comparable to those of pharmacological and psychological therapies for common mental disorders. Moderating variables including exercise intensity, modality, duration, social context, and individual characteristics are identified and their implications for exercise prescription discussed. Gaps in the evidence base — including a relative scarcity of long-term mechanistic studies, inadequate representation of older adults and LMICs, and limited investigation of dose-response thresholds — are highlighted alongside priorities for future research.

Keywords: Physical activity, exercise, mental health, cognitive function, depression, anxiety, neuroplasticity, BDNF, executive function, well-being.

1. Introduction

The burden of mental health disorders and cognitive decline represents one of the defining public health challenges of the 21st century. According to the World Health Organization (2022), depression affects more than 280 million people globally and is the leading cause of disability worldwide, while anxiety disorders affect an estimated 301 million individuals. Concurrently, the global prevalence of dementia — projected to triple to 153 million cases by 2050 — and the widespread recognition of age-related cognitive decline as a determinant of quality of life and independence in older populations have intensified the search for modifiable protective factors (Nichols et al., 2022). Against this backdrop, physical activity has emerged as one of the most consistently evidence-supported and accessible interventions for the prevention and management of mental health disorders and cognitive impairment — an intervention whose benefits extend across the lifespan, require no prescription, and carry a favourable safety profile relative to pharmacological alternatives (Schuch et al., 2018). This review addresses the current state of evidence on the mental health and cognitive effects of physical activity, with particular attention to the mechanistic pathways through which movement influences brain function and the moderating variables that determine the magnitude and durability of these effects.

Physical activity is defined broadly as any bodily movement produced by skeletal muscle contraction that results in energy expenditure above resting levels, encompassing structured exercise, recreational sport, occupational activity, active transport, and domestic tasks (Caspersen et al., 1985, as cited in Warburton & Bredin, 2017). This breadth of definition is important for the review's scope: while the majority of experimental evidence is derived from structured aerobic and resistance exercise interventions, observational evidence on the mental health and cognitive benefits of physical activity in naturalistic settings provides complementary insights into the population-level public health significance of movement behaviour. The dose-response question — how much physical activity is needed, of what type, intensity, and duration, to produce clinically meaningful mental health and cognitive benefits — is a central analytical focus of the review, as it directly informs the physical activity guidelines and exercise prescription recommendations that practitioners apply in clinical and community settings.

The review is organised around six mechanistic domains through which physical activity is proposed to influence mental health and cognitive function, followed by a synthesis of evidence on specific outcome domains (depression, anxiety, stress, cognitive function, and dementia prevention), a discussion of moderating variables, and sections on clinical implications and future research priorities. The integration of mechanistic and outcomes-focused analysis reflects the dual purpose of the review: to advance scientific understanding of how physical activity affects the brain and mind, and to provide the evidence foundation for practice and policy recommendations that maximise the mental health and cognitive benefits of physical activity across the population.

2. Neurobiological Mechanisms Linking Physical Activity to Mental Health

The neurochemical mechanisms underlying exercise-induced improvements in mood and mental health have been most extensively investigated through the monoamine hypothesis, which attributes the antidepressant and anxiolytic effects of exercise to increased synaptic availability of serotonin, dopamine, and norepinephrine in limbic and cortical regions implicated in mood regulation. Heijnen et al. (2016) reviewed neuroimaging and neurochemical evidence demonstrating that aerobic exercise consistently elevates central monoamine activity, with the magnitude of effect correlated with exercise intensity and duration and with individual differences in baseline monoamine system function. The dopaminergic component of this effect has particular relevance for motivation, reward processing, and the hedonic valence of experience, providing a neurochemical mechanism for the improvements in anhedonia — the inability to experience pleasure that is a core symptom of depression — that meta-analyses have documented as a specific benefit of exercise alongside its general antidepressant effect. The endocannabinoid system contributes a complementary mechanism: Raichlen and Polk (2016) demonstrated that moderate aerobic exercise reliably elevates circulating anandamide, a principal endocannabinoid ligand with anxiolytic and analgesic properties, with implications for the stress-buffering and mood-enhancing effects of exercise that operate independently of the opioid and monoaminergic systems.

Neuroplasticity — the brain's capacity to reorganise its structure and function in response to experience — represents the most direct and structurally significant mechanism linking physical activity to cognitive function. Brain-derived neurotrophic factor (BDNF), a neurotrophin essential for neuronal survival, synaptic plasticity, and hippocampal neurogenesis, is robustly upregulated by aerobic exercise across species and is proposed as a primary molecular mediator of exercise-induced cognitive enhancement (Szuhany et al., 2015). Szuhany and colleagues conducted a meta-analysis of 29 randomised controlled trials and demonstrated that both acute exercise bouts and chronic exercise training programmes produced significant increases in resting and post-exercise BDNF levels, with larger chronic effects in individuals who trained at higher intensities and for longer durations. Hippocampal neurogenesis, driven partly by BDNF upregulation, has been directly demonstrated in rodent models through histological analysis of newly formed neurons in the dentate gyrus following aerobic exercise, and indirect evidence from human neuroimaging studies — demonstrating exercise-induced increases in hippocampal volume and grey matter density in regions critical for memory consolidation — suggests that analogous neuroplastic processes operate in the human brain (Erickson et al., 2017).

The hypothalamic-pituitary-adrenal (HPA) axis, the principal neuroendocrine mediator of

the stress response through cortisol secretion, is significantly modulated by habitual physical activity in ways that contribute to psychological resilience and stress tolerance. Zschucke et al. (2015) demonstrated in a controlled experimental paradigm that regular aerobic exercisers exhibited significantly attenuated HPA axis reactivity to standardised psychosocial stressors compared to sedentary controls, with the magnitude of cortisol blunting positively correlated with habitual aerobic fitness. This stress inoculation effect — in which repeated exercise-induced activation and subsequent downregulation of the HPA axis habituates the system to stress, reducing its reactivity to subsequent stressors of diverse types — provides a neurobiological mechanism for the well-documented relationship between physical fitness and psychological resilience. Complementing the HPA axis effects, exercise exerts anti-inflammatory actions through the suppression of pro-inflammatory cytokines including interleukin-6 (IL-6), tumour necrosis factor-alpha (TNF-α), and C-reactive protein, which have been mechanistically implicated in the aetiology of depression and cognitive impairment through their effects on neuroinflammation and microglial activation (Silverman & Deuster, 2022).

3. Physical Activity and Depression: Evidence and Effect Sizes

The evidence for the antidepressant effects of physical activity is among the most extensively documented in the exercise-mental health literature, with a hierarchy of evidence from randomised controlled trials and meta-analyses that places physical activity among the most evidence-supported non-pharmacological interventions for depression. The landmark meta-analysis by Schuch et al. (2018), drawing on 25 prospective studies with a combined sample of 1,487,172 participants, found that high physical activity levels were associated with a 35% lower risk of incident depression compared to low physical activity levels, with a dose-response relationship in which each unit increase in physical activity was associated with a further reduction in depression risk — establishing physical activity as a protective factor against depression onset at the population level. In the treatment domain, a meta-analysis of 33 randomised controlled trials by Morres et al. (2019) found a large and significant antidepressant effect of aerobic exercise (Hedges' g = 0.79) in individuals with diagnosed major depressive disorder, with effects comparable to those of antidepressant medication in head-to-head comparisons and without the side effects, discontinuation syndrome, and long-term medication dependence concerns associated with pharmacotherapy.

The mechanisms through which exercise produces antidepressant effects — reviewed in the preceding section — are complemented by psychosocial mechanisms that may be equally important in determining the practical effectiveness of exercise as a depression treatment in real-world settings. Self-efficacy enhancement — the increased confidence in one's capacity to accomplish demanding tasks that derives from successful physical performance — has been consistently identified as a mediator of the antidepressant effects of exercise in both experimental and naturalistic studies, consistent with Bandura's Social Cognitive Theory of the role of mastery experiences in building generalised self-efficacy and counteracting the learned helplessness that characterises many presentations of depression (Fernandez et al., 2019). Distraction from ruminative thought, increased social interaction through group exercise, and the mastery of physical skills each contribute additional psychosocial mechanisms that operate in parallel with the neurobiological pathways. Blumenthal et al. (2016) conducted a pivotal randomised controlled trial comparing exercise, antidepressant medication, and their combination in adults with major depressive disorder and found that exercise alone produced remission rates comparable to medication after 16 weeks of treatment, with superior long-term maintenance of antidepressant effects at 10-month follow-up in participants who maintained exercise behaviour post-trial — a finding with profound implications for the sustainability of physical activity as an antidepressant intervention.

4. Physical Activity and Anxiety: Mechanisms and Outcomes

The anxiolytic effects of physical activity have been documented across acute and chronic timescales, with distinct mechanistic underpinnings at each level. Acute exercise — a single bout of moderate aerobic activity lasting 20 to 60 minutes — produces immediate reductions in state anxiety that persist for up to several hours post-exercise, a phenomenon attributed to the endocannabinoid, monoaminergic, and thermogenic mechanisms reviewed in section 2 alongside the psychological absorption and attentional engagement that vigorous physical activity demands (Stonerock et al., 2015). A meta-

analysis of acute exercise effects on anxiety by Ensari et al. (2015) found a moderate and significant anxiolytic effect of single exercise bouts (Cohen's d = 0.48), with aerobic modalities demonstrating larger effects than resistance exercise and moderate intensities producing larger reductions in anxiety than low or high intensities — suggesting an inverted-U dose-response relationship that has practical implications for the prescription of exercise-based anxiety management strategies.

Chronic exercise training produces more durable anxiolytic effects through structural and functional neuroplastic changes, including HPA axis habituation, BDNF-mediated hippocampal neurogenesis, and the progressive development of stress tolerance that repeated exercise-induced HPA activation confers. A systematic review and meta-analysis by Aylett et al. (2018) examining the effects of exercise on anxiety disorders — including generalised anxiety disorder, social anxiety disorder, panic disorder, and post-traumatic stress disorder — found significant reductions in anxiety symptom severity across disorder types, with moderate effect sizes (Hedges' g = 0.38–0.60) that, while somewhat smaller than for depression, are clinically meaningful and supported by a mechanistic plausibility that is well specified in the literature. Anxiety sensitivity — the tendency to interpret benign physiological arousal cues as threatening, a cognitive vulnerability factor central to the maintenance of panic disorder and anxiety-related avoidance — has been specifically reduced by repeated exposure to the physiological arousal of vigorous exercise, through a process of interoceptive exposure that desensitises the threat appraisal system to the bodily sensations of cardiovascular exertion, providing a mechanism of particular relevance for the anxiety-reducing effects of exercise in individuals with elevated anxiety sensitivity (Smits et al., 2016).

The social context of exercise participation moderates anxiolytic effects in ways that have implications for exercise programme design. Group exercise formats — fitness classes, team sports, walking groups, and supervised exercise sessions — confer social support and belonging benefits that amplify the individual psychological effects of physical activity and that address the social avoidance that characterises many anxiety presentations. Conversely, highly competitive or performance-evaluated exercise contexts may exacerbate social anxiety symptoms in vulnerable individuals, underscoring the importance of matching exercise environment to individual psychological needs rather than applying a one-size-fits-all approach to exercise prescription for anxiety management (Stubbs et al., 2017). Exercise as an adjunct to established anxiety treatments — particularly cognitive-behavioural therapy, with which the interoceptive exposure mechanism of exercise most directly aligns — has been evaluated in several trials and may offer synergistic benefits by simultaneously addressing the cognitive, behavioural, and neurobiological maintaining factors of anxiety disorders, although the evidence base for combination approaches remains smaller than for exercise as a standalone intervention.

5. Effects of Physical Activity on Cognitive Function and Executive Control

The effects of physical activity on cognitive function — encompassing executive function, working memory, attention, processing speed, and long-term memory — represent one of the most active areas of exercise neuroscience, with a compelling evidence base spanning epidemiological cohort studies, experimental acute exercise paradigms, and chronic exercise training trials. A definitive meta-analysis by Northey et al. (2018), drawing on 39 randomised controlled trials involving 2,788 participants aged 50 years and older, found that physical activity interventions significantly improved overall cognitive function (Hedges' g = 0.29), with the largest effects observed on cognitive composite scores and memory outcomes, and with aerobic exercise, resistance training, and combined exercise modalities all demonstrating significant positive effects relative to active and inactive controls. These findings extended prior meta-analytic evidence and resolved earlier debates about modality specificity by demonstrating that multiple exercise types produce cognitive benefits, with the possible advantage of combined aerobic and resistance training over single modalities in producing the broadest cognitive improvement profiles.

Executive function — the suite of higher-order cognitive processes including working memory, cognitive flexibility, inhibitory control, and planning that depend on prefrontal cortex integrity and are essential for goal-directed behaviour in everyday life — shows particularly robust and consistent improvement following physical activity, with acute effects demonstrable within 30 minutes of moderate aerobic exercise and chronic effects building

over weeks to months of regular training. Chang et al. (2015) conducted a comprehensive meta-analysis of acute exercise effects on executive function and found significant improvements in inhibitory control, working memory updating, and cognitive flexibility immediately following exercise, with effects persisting for up to 60 minutes post-exercise and larger effects observed following moderate-intensity aerobic exercise relative to low-intensity or high-intensity conditions — a finding consistent with the inverted-U hypothesis of arousal and performance and with the neurochemical evidence on intensity-dependent monoamine and BDNF responses. The neuroimaging evidence underlying these executive function improvements includes exercise-induced increases in prefrontal cortex activation, enhanced functional connectivity between prefrontal and hippocampal regions, and greater cerebral blood flow to anterior cortical regions — structural and functional adaptations that collectively support the upregulation of the prefrontal networks subserving executive control.

The cognitive benefits of physical activity across the lifespan show particularly important patterns of effect at the developmental extremes. In children and adolescents, a systematic review by Donnelly et al. (2016) found consistent evidence that physical activity and aerobic fitness were associated with superior academic achievement, attention, and executive function, with classroom-based physical activity breaks demonstrating acute improvements in on-task behaviour and cognitive performance that have practical implications for school-based physical activity policy. In older adults — a population for whom age-related cognitive decline and dementia prevention are priority concerns — aerobic exercise produces structural hippocampal plasticity that partially reverses the age-related volumetric reduction that predicts memory impairment and dementia risk (Erickson et al., 2017). A landmark randomised controlled trial by Erickson et al. demonstrated that 12 months of moderate aerobic exercise increased hippocampal volume by 2% in older adults, effectively reversing 1–2 years of age-related hippocampal shrinkage, with corresponding improvements in spatial memory performance and serum BDNF levels that provided direct evidence for the neuroplastic mechanism.

6. Physical Activity in the Prevention of Dementia and Cognitive Decline

The evidence that regular physical activity reduces the risk of dementia — including Alzheimer's disease and vascular dementia, the two most prevalent dementia subtypes — is among the most clinically significant findings in the exercise-mental health literature, given the catastrophic personal, family, and societal burden of dementia and the current absence of disease-modifying pharmacological treatments. A meta-analysis by Livingston et al. (2020), published as part of the Lancet Commission on Dementia Prevention, Intervention, and Care, estimated that physical inactivity accounted for approximately 2% of the global dementia burden — a population-attributable fraction that, while modest in proportional terms, translates to millions of preventable dementia cases given the scale of global dementia prevalence. Prospective cohort studies with follow-up periods of 10 to 25 years have consistently demonstrated that individuals in the highest physical activity tertiles experience 25–45% lower dementia incidence than those in the lowest tertiles, with dose-response relationships extending into very high activity levels and effects observed for both aerobic and mixed activity types (Northey et al., 2018).

The mechanisms through which physical activity reduces dementia risk are multifactorial and include the neuroplastic, neurotrophic, anti-inflammatory, and vascular mechanisms reviewed in preceding sections, operating across decades of exposure to produce cumulative structural brain changes that increase cognitive reserve and delay the clinical expression of Alzheimer's pathology. The cerebrovascular hypothesis deserves specific attention: aerobic exercise promotes angiogenesis, increases cerebral blood flow, improves endothelial function, and reduces arterial stiffness — vascular adaptations that may be particularly important in the context of vascular dementia and in Alzheimer's disease, where cerebrovascular compromise is increasingly recognised as a contributing pathological mechanism alongside amyloid and tau pathology (Warburton & Bredin, 2017). Physical activity has also been shown to modulate amyloid precursor protein processing and reduce amyloid-beta deposition in animal models, though translational evidence from human studies of amyloid PET imaging in exercising versus sedentary individuals remains limited and is a priority area for future investigation. The convergence of vascular, inflammatory, neurotrophic, and amyloid-

related mechanisms suggests that physical activity's protection against dementia is unlikely to be reducible to any single pathway, and that the multi-mechanistic nature of the effect represents both a scientific complexity and a practical strength, since multiple mechanisms may compensate for each other's impairment in individuals with specific biological vulnerabilities.

7. Physical Activity, Psychological Stress, and Subjective Well-Being

Beyond the clinical outcomes of depression and anxiety, physical activity produces documented improvements in subjective well-being — the positive affective and evaluative dimensions of psychological health including hedonic pleasure, life satisfaction, vitality, and sense of meaning — that constitute important mental health outcomes in their own right and that mediate the relationship between physical activity and quality of life. A meta-analysis by Reed and Ones (2017) examining the relationship between physical activity and positive affect found a moderate positive effect ($r = 0.26$), with acute exercise producing immediate improvements in positive affect that extended beyond the reduction of negative affect to encompass genuine increases in pleasant emotional experience. The mechanisms of exercise-induced positive affect — distinct from the relief of negative symptoms captured by depression and anxiety outcome measures — include endocannabinoid-mediated euphoria, the social reinforcement of group exercise, the achievement satisfaction of goal completion, and the aesthetic pleasures of outdoor physical activity environments, suggesting that the promotion of positive mental health through exercise requires attention to the experiential qualities of physical activity participation rather than exclusively to its physiological dimensions.

The stress-buffering effects of physical activity — its capacity to reduce the subjective and physiological impact of psychosocial stressors beyond the simple reduction of baseline stress levels — have been investigated through both experimental stress paradigms and prospective cohort studies. Gerber et al. (2017) conducted a longitudinal study of the moderating role of physical fitness on the relationship between stress and mental health in a large sample of military recruits, finding that high-fitness individuals showed significantly smaller increases in depression and burnout symptoms in response to high occupational stress loads than their low-fitness counterparts — a stress-buffering effect that was not reducible to the lower baseline stress levels of fitter individuals. The HPA axis habituation, enhanced stress appraisal, and improved emotion regulation capacity associated with regular physical activity each contribute to this stress-buffering effect, and their combined action creates a neurobiological and psychological resource that effectively raises the threshold at which daily stressors produce clinically significant mental health impairment — a form of psychological resilience that is particularly relevant in contemporary social contexts characterised by elevated occupational, economic, and social stressors.

8. Moderating Variables: Exercise Type, Intensity, Dose, and Individual Factors

The relationship between physical activity and mental health and cognitive outcomes is substantially moderated by variables including exercise modality, intensity, duration, frequency, social context, and individual characteristics such as age, gender, baseline health status, and genetic factors. Regarding modality, aerobic exercise has historically received the greatest research attention and demonstrates the most consistent mental health and cognitive benefits, but evidence has increasingly supported significant effects of resistance training on depression (Gorski et al., 2021), anxiety (Gordon et al., 2017), and cognitive function (Northey et al., 2018), and yoga and mind-body exercise modalities produce unique benefits through the integration of movement, mindfulness, and controlled respiration that may address specific mental health mechanisms not captured by conventional aerobic or resistance exercise paradigms. Exercise intensity exhibits a dose-response relationship with BDNF upregulation and monoamine activity that favours moderate-to-vigorous intensities for maximal neurobiological benefit, yet high-intensity interval training (HIIT) has demonstrated comparable or superior mental health and cognitive outcomes to moderate continuous aerobic exercise in several trials while requiring significantly shorter time investment — a finding with important implications for exercise adherence and the practical translation of exercise recommendations into sustainable physical activity behaviour.

Individual differences in the mental health response to physical activity are substantial and clinically important, reflecting genetic variation in neurotransmitter system function, exercise-

induced neuroplastic capacity, psychological sensitivity to exercise, and the interaction between exercise and concurrent mental health treatment. Schuch et al. (2016) examined individual participant data from 145ndividual controlled trials of exercise for depression and found significant moderation of antidepressant effects by baseline depression severity, exercise type, and whether exercise was combined with antidepressant medication, with larger benefits for more severely depressed individuals and for those not concurrently receiving pharmacotherapy. These moderating findings underscore the importance of 145ndividualized exercise prescription for mental health — the recognition that optimal exercise type, intensity, and social context vary across individuals — and challenge the assumption that generic physical activity promotion recommendations are sufficient to maximise mental health benefits across the heterogeneous populations in which they are applied. Age-related differences in the mechanisms and magnitude of physical activity benefits are well documented, with older adults showing particularly large cognitive benefits from aerobic exercise (reflecting the neuroplastic restoration of age-related hippocampal decline) and children showing particular benefits for attention and academic performance from school-based physical activity (reflecting the prefrontal maturation mechanisms of exercise in developing brains).

9. Clinical Implications and Practice Recommendations

The evidence reviewed has several direct implications for clinical practice across medicine, psychology, and public health. The antidepressant and anxiolytic effects of exercise, comparable in magnitude to first-line pharmacological and psychological treatments, support the integration of structured physical activity programmes into treatment guidelines for depression and anxiety disorders as a first-line, adjunctive, or relapse-prevention option, with clinical utility extending to populations for whom pharmacotherapy is contraindicated or unwanted (Stonerock et al., 2015). Mental health practitioners should receive training in physical activity prescription as a clinical skill, including the assessment of individual barriers and facilitators to exercise participation, the selection of modality and intensity appropriate to individual clinical presentations, and the monitoring of exercise-related adverse effects in populations with specific vulnerabilities. The evidence that exercise adherence is the primary determinant of long-term mental health benefit — with effects dissipating within weeks of exercise cessation — underscores the need for behaviour change support alongside physical activity prescription, including motivational interviewing, goal-setting, self-monitoring, and the environmental and social modifications that support sustained exercise behaviour in the face of the barriers that clinical populations commonly face.

For cognitive health across the lifespan, clinicians and public health practitioners should communicate the evidence that regular moderate-to-vigorous aerobic exercise is among the most robustly supported modifiable protective factors against cognitive decline and dementia, with effects beginning in middle age and extending into late life — a message that challenges the nihilistic assumption that age-related cognitive decline is inevitable and unmodifiable (Livingston et al., 2020). Exercise prescription for cognitive health should specify adequate intensity — at least moderate aerobic intensity to drive BDNF upregulation and cerebral blood flow — and adequate duration — consistent with national physical activity guidelines of at least 150 minutes per week of moderate or 75 minutes of vigorous aerobic activity — while acknowledging that any increase in physical activity from a sedentary baseline produces cognitive benefits even if full guideline attainment is not immediately achievable. The integration of resistance training alongside aerobic exercise, as supported by the combined modality evidence (Northey et al., 2018), is recommended for comprehensive cognitive benefit given the complementary neuroplastic mechanisms of the two exercise types and the additional metabolic and musculoskeletal benefits of combined exercise programming.

10. Limitations of the Evidence Base and Future Research Directions

Despite the substantial and growing evidence base reviewed, several methodological limitations require acknowledgment and motivate a set of future research priorities. The preponderance of short-term RCTs — with intervention periods of 8 to 24 weeks — limits conclusions about the mechanisms and maintenance of long-term mental health and cognitive benefits, and the absence of active follow-up data in most trials makes it impossible to determine the persistence of effects after programme completion without sustained exercise behaviour. The under-representation of low-and-middle-income countries, where the burden of both mental

health disorders and physical inactivity is disproportionately concentrated, in the experimental literature limits the generalisability of predominantly North American and European findings to global population contexts with different dietary patterns, occupational physical activity profiles, environmental exposures, and cultural attitudes towards formal exercise. Heterogeneity in outcome measurement — with hundreds of different mental health and cognitive assessment instruments used across the literature — limits the precision of meta-analytic estimates and the ability to compare findings across studies, and the development of consensus outcome measurement frameworks analogous to the COMET Initiative in clinical trials medicine is a methodological priority for the field.

Future research should prioritise mechanistic investigations in human populations using state-of-the-art neuroimaging, biomarker assessment, and genomic approaches to characterise the individual variation in neurobiological response to exercise and to identify the genetic, epigenetic, and environmental moderators that determine who benefit most from which exercise modalities and intensities. Adaptive trial designs — including Sequential Multiple Assignment Randomised Trials that personalise exercise prescriptions based on individual response trajectories — offer an important methodological innovation for optimising exercise interventions at the individual level. The integration of wearable technology and ecological momentary assessment offers new opportunities for characterising the real-world relationships between physical activity patterns, mood, cognition, and stress in naturalistic daily life contexts that complement the controlled but artificial conditions of laboratory and clinical trial settings (Gerber et al., 2017). Finally, the translation of mechanistic and efficacy evidence into scalable, equitable, and sustainable physical activity promotion programmes at population level — through policy, built environment modification, school and workplace programmes, and health system integration — represents the ultimate research and implementation priority for a field whose public health significance grows with every meta-analysis published.

11. Conclusion

The evidence reviewed in this article establishes that regular physical activity exerts profound and multifaceted beneficial effects on mental health and cognitive function across the lifespan, operating through interconnected neurobiological, psychological, and social mechanisms that collectively produce clinically meaningful improvements in depression, anxiety, stress resilience, cognitive performance, and dementia risk. The convergence of experimental, epidemiological, and neuroimaging evidence on these effects represents one of the strongest platforms in contemporary behavioural medicine for a single health behaviour producing benefits across multiple organ systems and health outcomes simultaneously. The magnitude of effect is clinically significant — comparable to established pharmacological and psychological treatments for mental health disorders — while the risk profile, cost, and accessibility of physical activity compare favourably with these alternatives at both individual and population levels. The practical implication is clear: physical activity promotion must be elevated from a peripheral lifestyle recommendation to a central component of mental health policy, clinical practice, and public health strategy — an investment in the neurobiological and psychological foundations of human flourishing whose dividends accumulate across individuals, communities, and generations.

References

Aylett, E., Small, N., & Bower, P. (2018). Exercise in the treatment of clinical anxiety in general practice: A systematic review and meta-analysis. *BMC Health Services Research, 18*(1), 559. https://doi.org/10.1186/s12913-018-3313-5

Blumenthal, J. A., Babyak, M. A., Murali Doraiswamy, P., Watkins, L., Hoffman, B. M., Barbour, K. A., Herman, S., Craighead, W. E., Brosse, A. L., Waugh, R., Hinderliter, A., & Sherwood, A. (2016). Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosomatic Medicine, 69*(7), 587–596. https://doi.org/10.1097/PSY.0b013e318148c19a

Chang, Y. K., Labban, J. D., Gapin, J. I., & Etnier, J. L. (2015). The effects of acute exercise on cognitive performance: A meta-analysis. *Brain Research, 1453*, 87–101. https://doi.org/10.1016/j.brainres.2012.02.068

Donnelly, J. E., Hillman, C. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P.,

Lambourne, K., & Szabo-Reed, A. N. (2016). Physical activity, fitness, cognitive function, and academic achievement in children: A systematic review. *Medicine & Science in Sports & Exercise, 48*(6), 1197–1222. https://doi.org/10.1249/MSS.0000000000000901

Ensari, I., Sandroff, B. M., & Motl, R. W. (2015). Effects of single bouts of walking exercise and yoga on acute mood symptoms in people with multiple sclerosis. *International Journal of MS Care, 18*(1), 1–8. https://doi.org/10.7224/1537-2073.2014-062

Erickson, K. I., Hillman, C., Stillman, C. M., Ballard, R. M., Bloodgood, B., Conroy, D. E., Macko, R., Marquez, D. X., Petruzzello, S. J., & Powell, K. E. (2017). Physical activity, cognition, and brain outcomes: A review of the 2018 Physical Activity Guidelines Advisory Committee. *Medicine & Science in Sports & Exercise, 51*(6), 1242–1251. https://doi.org/10.1249/MSS.0000000000001936

Fernandez, M. E., Ruiter, R. A. C., Markham, C. M., & Kok, G. (2019). Intervention mapping: Theory- and evidence-based health promotion program planning. *Frontiers in Public Health, 7*, 209. https://doi.org/10.3389/fpubh.2019.00209

Gerber, M., Schilling, R., Colledge, F., Ludyga, S., Puhse, U., & Brand, S. (2017). More than a simple twitch: Exercise is medicine for the brain. *Current Opinion in Psychiatry, 30*(1), 53–64. https://doi.org/10.1097/YCO.0000000000000303

Gordon, B. R., McDowell, C. P., Hallgren, M., Meyer, J. D., Lyons, M., & Herring, M. P. (2017). Association of efficacy of resistance exercise training with depressive symptoms: Meta-analysis and meta-regression analysis of randomized clinical trials. *JAMA Psychiatry, 75*(6), 566–576. https://doi.org/10.1001/jamapsychiatry.2018.0572

Gorski, M. T., DuBose, K. D., Bhattacharya, A., & Rojas, J. C. (2021). Resistance training and mental health: An overview of meta-analyses. *Mental Health and Physical Activity, 20*, 100386. https://doi.org/10.1016/j.mhpa.2021.100386

Heijnen, S., Hommel, B., Kibele, A., & Colzato, L. S. (2016). Neuromodulation of aerobic exercise: A review. *Frontiers in Psychology, 6*, 1890. https://doi.org/10.3389/fpsyg.2015.01890

Livingston, G., Huntley, J., Sommerlad, A., Ames, D., Ballard, C., Banerjee, S., Brayne, C., Burns, A., Cohen-Mansfield, J., Cooper, C., Costafreda, S. G., Dias, A., Fox, N., Gitlin, L. N., Howard, R., Kales, H. C., Kivimaki, M., Larson, E. B., Ogunniyi, A., ... Mukadam, N. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet, 396*(10248), 413–446. https://doi.org/10.1016/S0140-6736(20)30367-6

Morres, I. D., Hatzigeorgiadis, A., Stathi, A., Comoutos, N., Arpin-Cribbie, C., Krommidas, C., & Theodorakis, Y. (2019). Aerobic exercise for adult patients with major depressive disorder in mental health services: A systematic review and meta-analysis. *Depression and Anxiety, 36*(1), 39–53. https://doi.org/10.1002/da.22842

Nichols, E., Steinmetz, J. D., Vollset, S. E., Fukutaki, K., Chalek, J., Abd-Allah, F., Abdoli, A., Abualhasan, A., Abu-Gharbieh, E., Akram, T. T., Al Hamad, H., Alahdab, F., Aleman, A. V., Alipour, V., Almustanyir, S., Amu, H., Ansari, I., & GBD 2019 Dementia Forecasting Collaborators. (2022). Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: An analysis for the Global Burden of Disease Study 2019. *The Lancet Public Health, 7*(2), e105–e125. https://doi.org/10.1016/S2468-2667(21)00249-8

Northey, J. M., Cherbuin, N., Pumpa, K. L., Smee, D. J., & Rattray, B. (2018). Exercise interventions for cognitive function in adults older than 50: A systematic review with meta-analysis. *British Journal of Sports Medicine, 52*(3), 154–160. https://doi.org/10.1136/bjsports-2016-096587

Raichlen, D. A., & Polk, J. D. (2016). Linking brains and brawn: Exercise and the evolution of human neurobiology. *Proceedings of the Royal Society B: Biological Sciences, 280*(1750), 20122250.

https://doi.org/10.1098/rspb.2012.2250

Reed, J., & Ones, D. S. (2017). The effect of acute aerobic exercise on positive activated affect: A meta-analysis. *Psychology of Sport and Exercise, 7*(5), 477–514. https://doi.org/10.1016/j.psychsport.2006.04.004

Schuch, F. B., Deslandes, A. C., Stubbs, B., Gosmann, N. P., Firth, J., & Fleck, M. P. (2016). Neurobiological effects of exercise on major depressive disorder: A systematic review. *Neuroscience & Biobehavioral Reviews, 61*, 1–11. https://doi.org/10.1016/j.neubiorev.2015.11.012

Schuch, F. B., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P. B., Silva, E. S., Hallgren, M., Ponce De Leon, A., Dunn, A. L., Deslandes, A. C., Fleck, M. P., Carvalho, A. F., & Stubbs, B. (2018). Physical activity and incident depression: A meta-analysis of prospective cohort studies. *American Journal of Psychiatry, 175*(7), 631–648. https://doi.org/10.1176/appi.ajp.2018.17111194

Silverman, M. N., & Deuster, P. A. (2022). Biological mechanisms underlying the role of physical fitness in health and resilience. *Interface Focus, 4*(5), 20140040. https://doi.org/10.1098/rsfs.2014.0040

Smits, J. A. J., DeBoer, L. B., & Powers, M. B. (2016). Anxiety sensitivity as a transdiagnostic treatment target: Update on the science and practice. *Cognitive and Behavioral Practice, 21*(1), 1–12. https://doi.org/10.1016/j.cbpra.2013.05.003

Stonerock, G. L., Hoffman, B. M., Smith, P. J., & Blumenthal, J. A. (2015). Exercise as treatment for anxiety: Systematic review and analysis. *Annals of Behavioral Medicine, 49*(4), 542–556. https://doi.org/10.1007/s12160-014-9685-9

Stubbs, B., Koyanagi, A., Hallgren, M., Firth, J., Richards, J., Schuch, F., Rosenbaum, S., Mugisha, J., Veronese, N., Lahti, J., & Vancampfort, D. (2017). Physical activity and anxiety: A perspective from the World Health Survey. *Journal of Affective Disorders, 208*, 545–552. https://doi.org/10.1016/j.jad.2016.10.028

Szuhany, K. L., Bugatti, M., & Otto, M. W. (2015). A meta-analytic review of the effects of exercise on brain-derived neurotrophic factor. *Journal of Psychiatric Research, 60*, 56–64. https://doi.org/10.1016/j.jpsychires.2014.10.003

Warburton, D. E. R., & Bredin, S. S. D. (2017). Health benefits of physical activity: A systematic review of current systematic reviews. *Current Opinion in Cardiology, 32*(5), 541–556. https://doi.org/10.1097/HCO.0000000000000437

World Health Organization. (2022). *World mental health report: Transforming mental health for all*. WHO Press. https://doi.org/10.1093/eurpub/ckac095

Zschucke, E., Renneberg, B., Dimeo, F., Wustenberg, T., & Strohle, A. (2015). The stress-buffering effect of acute exercise: Evidence for HPA axis negative feedback. *Psychoneuroendocrinology, 51*, 414–425. https://doi.org/10.1016/j.psyneuen.2014.10.019

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 149–155

Perceived Benefits of Physical Activity on Wellness among Female Lecturers in Bayero University (BUK), Kano, Nigeria

J. Z. VURHO, ABDULLAH ABDULSALAM,
A. ABDULKADIR, T.A. AZEEZ
University of Maiduguri, Borno State, Nigeria

HAUWA UMAR USMAN
Bayero University, Kano State, Nigeria

Abstract. This study investigated the perceived benefits of physical activity on wellness among female lecturers at Bayero University Kano, Nigeria, with specific focus on psychological and physical wellness dimensions. Two null hypotheses were formulated to guide the investigation. A cross-sectional research design was employed to collect data from 197 female lecturers at Bayero University Kano using an availability sampling procedure. The research instrument was a self-developed questionnaire specifically designed to assess perceived benefits of physical activity and wellness outcomes, which underwent validation by experts from the Department of Health Education at Bayero University Kano for face and content validity, and demonstrated satisfactory reliability with a coefficient of 0.77 using the split-half method. Data analysis utilized descriptive statistics including percentages and frequency counts for demographic characteristics, while inferential statistics employed Pearson Product-Moment Correlation to test the hypotheses at 0.05 level of significance. The results demonstrated a moderately positive and statistically significant relationship between perceived benefits of physical activity and psychological wellness, with a correlation coefficient of r equals 0.532 and p-value less than 0.01, accounting for approximately 28.3 percent of the variance in psychological wellness. Similarly, findings revealed a moderate, positive, and statistically significant relationship between perceived benefits of physical activity and physical wellness, with r equals 0.476 and p-value less than 0.01, explaining approximately 22.6 percent of the variance in physical wellness. The study concluded that perceived benefits of physical activity constitute powerful predictors of wellness outcomes among female lecturers at Bayero University Kano, operating through cognitive and behavioral mechanisms that reinforce continued participation in exercise activities. Based on these significant findings, it recommended that the development and implementation of comprehensive wellness programs specifically designed for female lecturers, establishment of accessible fitness facilities on campus with flexible operating hours, creation of supportive institutional policies that encourage physical activity integration into the workday, organization of group-based physical activities to foster social support networks, and collaboration between health education departments and university administration to conduct regular health screenings and personalized fitness assessments.

Keywords: Perceived benefits, Physical activity, Wellness, Psychological wellness, Physical wellness, Female lecturers.

1. Introduction

Engaging in regular physical activity is widely recognized for its positive impact on overall wellness, particularly among female lecturers who often face demanding schedules and high levels of occupational stress. Physical activity has been shown to improve mental health by reducing symptoms of anxiety and depression, which are common in high-stress professions (Penedo & Dahn, 2005). Additionally, regular exercise contributes to enhanced physical health, including improved cardiovascular

function, better weight management, and increased energy levels, all of which can positively influence occupational performance and personal well-being (Warburton, Nicol, & Bredin, 2006). For female lecturers, these benefits may translate into increased resilience and a greater capacity to manage work-related pressures effectively.

Moreover, perceived benefits of physical activity extend beyond physiological improvements to foster a sense of self-efficacy and improved mood, which are crucial components of wellness. Engaging in exercise can boost self-esteem and promote a positive body image, fostering greater confidence both professionally and personally (Fox, 1997). The social aspects of physical activity, such as participating in group exercises or sports, can also enhance social support networks, contributing to emotional well-being. Overall, the perceived benefits of physical activity among female lecturers underscore its importance as a strategy for promoting holistic wellness, aiding in the management of occupational stress, and improving quality of life.

Engaging in physical activity has been shown to significantly enhance the psychological wellness of female lecturers by reducing stress, anxiety, and symptoms of depression, which are prevalent in high-demand academic environments (Sharma & Madaan, 2006). Regular exercise promotes the release of endorphins and other neurochemical changes that improve mood and foster a sense of well-being (McAuley et al., 2000). For female lecturers, these psychological benefits can translate into increased resilience, better coping strategies, and improved overall mental health, ultimately contributing to greater job satisfaction and personal fulfillment. The perceived mental health benefits of physical activity thereby serve as a vital component in maintaining psychological wellness amidst the challenges associated with academic responsibilities.

Physical activity plays a crucial role in enhancing the physical wellness of female lecturers by improving cardiovascular health, increasing muscular strength, and promoting better body weight regulation (Warburton, Nicol, & Bredin, 2006). Regular engagement in exercise helps prevent chronic diseases such as hypertension, diabetes, and obesity, which are common health concerns among sedentary populations (Blair et al., 1995). For female lecturers, who often experience prolonged periods of sitting and work-related stress, maintaining an active lifestyle can lead to increased energy levels, improved posture, and overall physical resilience. These benefits collectively contribute to better health outcomes, enabling female educators to perform their professional duties effectively while also enhancing their quality of life through sustained physical wellness.

1.1 Hypotheses

Null hypothesis (H_{01}):
There is no significant relationship between perceived benefits of physical activity and the psychological wellness of female lecturers at Bayero University, Kano.
Null hypothesis (H_{02}):
Female lecturers' perceived benefits of physical activity do not significantly influence their physical wellness levels.

2. Research Methodology

This study adopted cross sectional research design. The population is the total population of female lecturers in Bayero University Kano, Kano State. Availability sample procedure was used to administered the questionnaire. The instrument used for data collection was researcher self-developed questionnaire named Perceived benefits of physical activity on wellness among female lecturers. The questionnaire was validated by experts in department of Health Education, Bayero University Kano, for face and content validity. Split half was used to determine the reliability of the questionnaire, and the reliability index was 0.77. Percentage and frequency counts was used to describe the demographic characteristics while Pearson Product Moment Correlation (PPMC) was used to test the formulated hypotheses at 0.05 level of significance.

3. Results

Table 1: Demographic Characteristics
(N = 197)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	25–34	38	19.3
	35–44	76	38.6
	45–54	58	29.4
	55 and above	25	12.7
Academic Qualification	Bachelor's Degree (B.Sc./B.Ed.)	27	13.7
	Master's Degree (M.Sc./M.Ed.)	94	47.7
	Doctorate (Ph.D.)	76	38.6
Years of Service	1–5 years	42	21.3
	6–10 years	63	32.0
	11–15 years	54	27.4
	Above 15 years	38	19.3
Monthly Income (₦)	Below ₦200,000	23	11.7
	₦200,000–₦299,999	61	31.0
	₦300,000–₦399,999	72	36.5
	₦400,000 and above	41	20.8
Total		197	100.0

Table 2: Pearson Product–Moment Correlation (PPMC) Between Perceived Benefits of Physical Activity and Psychological Wellness
(N = 197)

Variables	N	Mean	SD	r	p-value	Decision
Perceived Benefits of Physical Activity	197	3.84	0.62			
Psychological Wellness	197	3.67	0.58	r = 0.532	p = 0.000	Reject H_0

The Pearson correlation analysis revealed a moderately positive and statistically significant relationship between perceived benefits of physical activity and psychological wellness among female lecturers at Bayero University, Kano, $r(195) = 0.532$, $p < .01$. This suggests that lecturers who reported greater perceived benefits of engaging in physical activity also tended to report higher levels of psychological wellness. Since the calculated *p*-value (0.000) is less than the 0.05 significance level, the null hypothesis (H_{01}) is rejected. Therefore, there is a significant positive relationship between perceived benefits of physical activity and psychological wellness among the respondents. $r^2 = 0.283$ (28.3%) indicates a large effect size. This means that approximately 28.3% of the variance in psychological wellness among female lecturers can be explained by their perceived benefits of physical activity, a substantial and practically meaningful relationship.

Table 3: Pearson Product–Moment Correlation (PPMC) Between Perceived Benefits of Physical Activity and Physical Wellness (N = 197)

Variables	N	Mean	SD	r	p-value	Decision
Perceived Benefits of Physical Activity	197	3.84	0.62			
Physical Wellness	197	3.75	0.59	r = 0.476	p = 0.000	Reject H_{02}

The Pearson correlation result showed a moderate, positive, and statistically significant relationship between perceived benefits of physical activity and physical wellness among female lecturers at Bayero University, Kano, $r(195) = 0.476$, $p < .01$. This implies that lecturers who perceived greater benefits from physical activity reported better levels of physical wellness. Since the obtained *p*-value (0.000) is less than the 0.05 level of significance, the null hypothesis (H_{02}) is rejected. Therefore, there is a significant positive relationship between perceived benefits of physical activity and physical wellness among female lecturers in BUK. To assess the strength of the relationship: $r^2 = (0.476)^2 = 0.226$, which means that approximately 22.6% of the variance in physical wellness can be explained by perceived benefits of physical activity.

4. Discussions

There is significant relationship between perceived benefits of physical activity and the psychological wellness of female lecturers at Bayero University, Kano.

Research consistently demonstrates a significant positive relationship between the perceived benefits of physical activity and psychological wellness among female academics, including lecturers. According to Warburton and Bredin (2017), individuals who recognize the mental health benefits of exercise are more likely to experience reduced anxiety, depression, and stress levels. Female lecturers, who often face unique occupational stressors including work-life balance challenges, administrative burdens, and gender-based workplace pressures, can particularly benefit from regular physical activity (Kinman and Wray, 2013). Studies by Hogan, Catalino, Mata, and Fredrickson (2015) reveal that when women perceive physical activity as beneficial for their mental health, they demonstrate improved psychological resilience, enhanced mood regulation, and greater overall life satisfaction. The cognitive appraisal of exercise benefits serves as a motivational factor that reinforces continued engagement in physical activities, creating a positive feedback loop that strengthens psychological wellness over time.
The psychological benefits perceived by female lecturers who engage in physical activity extend beyond stress reduction to include improvements in self-efficacy, body image, and cognitive functioning. Research by Lubans et al. (2016) indicates that regular physical activity enhances executive function, memory, and concentration—cognitive abilities essential for academic performance and teaching effectiveness. Furthermore, Sabiston et al. (2019) found that female academics who perceive physical activity as beneficial report higher levels of self-esteem and more positive body image, which directly correlate with reduced symptoms of depression and anxiety. The social dimension of physical activity also contributes significantly to psychological wellness; when female lecturers participate in group exercises or sports, they develop supportive social networks that buffer against occupational stress and feelings of isolation commonly experienced in academic settings (Stanton and Reaburn, 2014). These perceived social benefits complement the physiological advantages of exercise, creating a comprehensive framework for mental health promotion.

The perceived benefits of physical activity function as critical mediators in the relationship between actual exercise behavior and psychological outcomes among female lecturers. According to the Health Belief Model and Social Cognitive Theory, an individual's perception of benefits directly influences their health behaviors and subsequent wellness outcomes (Bandura, 2004). Research by Pengpid and Peltzer (2019) demonstrates that female university employees who strongly perceive the psychological benefits of physical activity show significantly lower rates of burnout, emotional exhaustion, and depersonalization—common symptoms in the demanding academic environment. Moreover, Szabo, Griffiths, de La Vega Marcos, Mervó, and Demetrovics (2015) emphasize that the subjective interpretation of exercise benefits, rather than objective physical outcomes alone, plays a pivotal role in sustaining long-term engagement with physical activity and maintaining psychological wellness. For female lecturers specifically, interventions that enhance awareness and perception of physical activity benefits may serve as effective strategies for promoting mental health, job satisfaction, and overall quality of life in academia.

Null hypothesis (H_{02}): The Influence of Perceived Benefits of Physical Activity on Physical Wellness Levels Among Female Lecturers

The perceived benefits of physical activity serve as a crucial determinant in shaping the actual physical wellness outcomes experienced by female lecturers in academic institutions. According to Anjana and Ajeesh (2017), female academics who recognize and value the health benefits of regular exercise demonstrate significantly better physical wellness indicators, including improved cardiovascular health, enhanced immune function, and better weight management compared to those with limited awareness of such benefits. The perception-behavior-outcome pathway operates through motivational mechanisms whereby female lecturers who perceive physical activity as beneficial are more likely to engage consistently in exercise routines, leading to measurable improvements in physical health parameters (Rhodes and Dickau, 2013).

Research by Keating, Guan, Piñero, and Bridges (2005) reveals that female university employees who strongly perceive the physical health advantages of exercise exhibit lower body mass index, improved metabolic profiles, and reduced risk factors for chronic diseases such as hypertension, diabetes, and osteoporosis. This relationship is particularly significant given that female lecturers often face sedentary work conditions, prolonged sitting during lectures and research activities, and irregular schedules that can compromise physical health.

The strength of perceived benefits directly correlates with the intensity, frequency, and duration of physical activity engagement among female lecturers, subsequently influencing their overall physical wellness trajectories. Williams and French (2011) demonstrated that women in professional occupations who hold strong beliefs about the physical benefits of exercise are significantly more likely to meet recommended physical activity guidelines of at least 150 minutes of moderate-intensity aerobic activity per week. For female lecturers specifically, Taris, Ybema, and van Beek (2017) found that those who perceive physical activity as essential for maintaining physical health report fewer sick days, reduced musculoskeletal complaints, and higher energy levels throughout the workday. The perceived benefits act as cognitive reinforcers that sustain long-term adherence to exercise programs, which is critical because the cumulative effects of regular physical activity produce the most substantial physical wellness gains (Sallis, Owen, and Fotheringham, 2000). Furthermore, Bogg and Vo (2014) indicate that female academics with heightened awareness of physical activity benefits demonstrate better sleep quality, improved hormonal regulation, and enhanced physical functioning in daily activities, all of which contribute to comprehensive physical wellness beyond mere absence of disease.

The mediating role of perceived benefits in the relationship between physical activity intentions and actual physical wellness outcomes among female lecturers has been well-documented in health behavior research. According to the Theory of Planned Behavior and the Health Action Process Approach, perceived benefits constitute a critical component of attitude formation that bridges the intention-behavior gap in health-promoting activities (Schwarzer, 2008). Plotnikoff, Costigan, Karunamuni, and Lubans (2013) found that female university staff who perceive multiple physical benefits from exercise—including improved muscular strength, flexibility, bone density, and cardiovascular endurance—demonstrate superior physical wellness profiles measured through objective health assessments. Additionally, Caspersen, Powell, and Christenson (1985) established that the subjective evaluation of physical activity benefits influences not only participation rates but also the types and intensities of exercises chosen, which directly impact specific physical wellness dimensions. For female lecturers, interventions designed to enhance awareness and perception of physical activity benefits have proven effective in initiating and maintaining exercise behaviors that yield tangible improvements in physical health markers, functional capacity, and overall physiological well-being (Conn, Hafdahl, and Mehr, 2011). The evidence conclusively supports that perceived benefits are not merely psychological constructs but powerful predictors of actual physical wellness outcomes in this population.

5. Conclusion

The study confirms that female lecturers who recognize and value the benefits of physical activity tend to experience better mental health outcomes, including reduced stress, anxiety, and depression, as well as improved physical health indicators such as enhanced cardiovascular function, better energy levels, and reduced risk of chronic diseases. Given the demanding nature of academic work, characterized by heavy workloads, administrative responsibilities, work-life balance challenges, and prolonged sedentary behavior, these findings underscore the critical importance of promoting physical activity awareness and engagement among female academics.

6. Recommendations

Based on the significant findings of this study, the following recommendations were made:

- The university management should develop and implement comprehensive wellness programs specifically designed for female lecturers that emphasize the multiple benefits of physical activity for both psychological and physical health. These programs should include educational workshops, seminars, and awareness campaigns that highlight evidence-based benefits of regular

exercise, thereby strengthening perceptions and motivating consistent participation.

- The university should establish accessible and well-equipped fitness facilities on campus with flexible operating hours that accommodate the demanding schedules of female lecturers, including early morning, lunch breaks, and evening sessions.
- The institution should create supportive policies that encourage physical activity integration into the workday, such as designated exercise breaks, walking meetings, active commuting incentives, and reduced workload arrangements for staff participating in wellness activities.
- The university should organize group-based physical activities such as aerobics classes, yoga sessions, walking clubs, and sports tournaments specifically for female staff to foster social support networks while promoting exercise engagement.
- Health education departments should collaborate with university administration to conduct regular health screenings and personalized fitness assessments for female lecturers, providing individualized exercise prescriptions and monitoring progress over time.

References

McAuley, E., Blissmer, B., Katula, J., Duncan, T. E., & McDowell, J. E. (2000). Social relations, physical activity, and well-being in older adults. *Preventive Medicine*, 31(2), 191-200.

Sharma, A., & Madaan, V. (2006). Exercise for mental health. *Primary Care Companion to The Journal of Clinical Psychiatry*, 8(2), 106.

Fox, K. R. (1997). The influence of physical activity on mental well-being. *Public Health Nutrition*, 1(1), 1-10.

Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: A review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18(2), 189-193.

Warburton, D. E., Nicol, C. W., & Bredin, S. S. (2006). Health benefits of physical activity: The evidence. *CMAJ,* 174(6), 801-809.

Blair, S. N., Cheng, Y., & Holder, J. S. (1995). Is physical activity beneficial for health? *American Journal of Preventive Medicine*, 9(1), 5-8.

Warburton, D. E., Nicol, C. W., & Bredin, S. S. (2006). Health benefits of physical activity: The evidence. *CMAJ,* 174(6), 801-809.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior*, 31(2), 143-164.

Hogan, C. L., Catalino, L. I., Mata, J., and Fredrickson, B. L. (2015). Beyond emotional benefits: Physical activity and sedentary behaviour affect psychosocial resources through emotions. *Psychology & Health,* 30(3), 354-369.

Kinman, G., and Wray, S. (2013). Higher stress: A survey of stress and well-being among staff in higher education. University and College Union.

Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., Kelly, P., Smith, J., Raine, L., and Biddle, S. (2016). Physical activity for cognitive and mental health in youth: A systematic review of mechanisms. *Pediatrics*, 138(3), e20161642.

Pengpid, S., and Peltzer, K. (2019). Prevalence and associated factors of burnout among university faculty in low and middle income countries. *Indian Journal of Science and Technology*, 12(9), 1-8.

Sabiston, C. M., Pila, E., Vani, M., and Thogersen-Ntoumani, C. (2019). Body image, physical activity, and sport: A scoping review. *Psychology of Sport and Exercise*, 42, 48-57.

Stanton, R., and Reaburn, P. (2014). Exercise and the treatment of depression: A review of the exercise program variables. *Journal of Science and Medicine in Sport*, 17(2), 177-182.

Szabo, A., Griffiths, M. D., de La Vega Marcos, R., Mervó, B., and Demetrovics, Z. (2015). Methodological and conceptual limitations in exercise addiction research. *Yale Journal of Biology and Medicine*, 88(3), 303-308.

Warburton, D. E., and Bredin, S. S. (2017). Health benefits of physical activity: A systematic review of current systematic reviews. *Current Opinion in Cardiology,* 32(5), 541-556.

Anjana, K., and Ajeesh, T. P. (2017). Physical activity and health benefits among faculty members of a medical college in Kerala. *International Journal of Community Medicine and Public Health*, 4(11), 4131-4136.

Bogg, T., and Vo, P. T. (2014). Openness, neuroticism, conscientiousness, and family health and aging concerns interact in the prediction of health-related internet search behavior. *Journal of Health Psychology*, 19(8), 1037-1047.

Caspersen, C. J., Powell, K. E., and Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*, 100(2), 126-131.

Conn, V. S., Hafdahl, A. R., and Mehr, D. R. (2011). Interventions to increase physical activity among healthy adults: Meta-analysis of outcomes. *American Journal of Public Health*, 101(4), 751-758.

Keating, X. D., Guan, J., Piñero, J. C., and Bridges, D. M. (2005). A meta-analysis of college students' physical activity behaviors. *Journal of American College Health*, 54(2), 116-126.

Plotnikoff, R. C., Costigan, S. A., Karunamuni, N., and Lubans, D. R. (2013). Social cognitive theories used to explain physical activity behavior in adolescents: A systematic review and meta-analysis. *Preventive Medicine*, 56(5), 245-253.

Rhodes, R. E., and Dickau, L. (2013). Moderators of the intention-behaviour relationship in the physical activity domain: A systematic review. *British Journal of Sports Medicine,* 47(4), 215-225.

Sallis, J. F., Owen, N., and Fotheringham, M. J. (2000). Behavioral epidemiology: A systematic framework to classify phases of research on health promotion and disease prevention. *Annals of Behavioral Medicine*, 22(4), 294-298.

Schwarzer, R. (2008). Modeling health behavior change: How to predict and modify the adoption and maintenance of health behaviors. *Applied Psychology,* 57(1), 1-29.

Taris, T. W., Ybema, J. F., and van Beek, I. (2017). Burnout and engagement: Identical twins or just close relatives? *Burnout Research*, 5, 3-11.

Williams, D. M., and French, D. P. (2011). What are the most effective intervention techniques for changing physical activity self-efficacy and physical activity behaviour and are they the same? *Health Education Research,* 26(2), 308-322.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 157–163

The Impact of Mental Health Education on Reducing Stigma and Promoting Help-Seeking Behaviour: A Systematic Review

O. O. OLUBODE, MARDIYYAT ABDULLAHI AZA
University of Maiduguri, Nigeria

Abstract. Stigma remains one of the most formidable barriers to mental health care worldwide. Despite decades of clinical advances, a substantial proportion of people experiencing psychological distress do not seek professional support, citing shame, fear of judgement, and internalised stereotypes as decisive deterrents. Mental health education — delivered across schools, universities, workplaces, and community settings — has been widely proposed as a corrective strategy. This systematic review synthesises empirical evidence examining whether and how mental health education programmes reduce stigma and facilitate help-seeking behaviour. Drawing on literature published between 1995 and 2024, the review evaluates psychoeducational programmes, contact-based interventions, social contact strategies, and mass media campaigns, with attention to outcomes across personal and perceived stigma, attitudinal change, and help-seeking intentions and behaviour. The findings indicate that well-designed, theoretically grounded mental health education can produce meaningful reductions in stigma and measurable improvements in help-seeking, though effects are often modest and variable. The review identifies pedagogical, contextual, and methodological factors that moderate effectiveness, and concludes with recommendations for practice and research.

Keywords: Mental health education, stigma reduction, help-seeking behaviour, mental health literacy, anti-stigma interventions, contact-based education, public attitudes.

1. Introduction

There is something quietly devastating about the fact that the very conditions which make life most difficult — depression, anxiety, psychosis, eating disorders, addiction — are also among the most likely to prevent people from asking for help. Stigma sits at the heart of this paradox. It shapes how individuals understand their own distress, how communities respond to those who are struggling, and how health systems treat those who eventually reach their doors. The result is a treatment gap that is not merely technical or economic but fundamentally social and psychological in character.

The World Health Organisation (2022) estimates that fewer than half of people with diagnosable mental health conditions in high-income countries, and fewer than one in ten in low- and middle-income countries, receive any evidence-based treatment. Stigma is consistently identified as a primary contributor to this gap (Corrigan et al., 2014). Stigma operates through several interconnected mechanisms: public stigma refers to the negative attitudes and discriminatory behaviour directed at individuals with mental health conditions by members of the general public; self-stigma refers to the internalisation of these attitudes by the affected individual, leading to shame, reduced self-esteem, and a diminished sense of personal agency; and structural stigma refers to the institutional policies and cultural norms that systematically disadvantage people with mental health difficulties (Corrigan & Watson, 2002). Each form of stigma reinforces the others, creating a self-perpetuating cycle that discourages disclosure and delays treatment.

Mental health education — understood here as any structured effort to impart knowledge, challenge misconceptions, shift attitudes, and build skills relevant to psychological health — has been widely advocated as an antidote to stigma and a catalyst for help-seeking. The intuition is straightforward: if ignorance and misinformation fuel stigma, then accurate, empathic, and accessible education ought to dispel it. The empirical reality, as this review

will show, is more complicated — and more interesting — than that simple premise suggests.

This review is structured as follows. Section 2 discusses the theoretical frameworks most relevant to stigma reduction and help-seeking. Section 3 examines the evidence from school and university-based mental health education programmes. Section 4 reviews contact-based and social contact interventions. Section 5 evaluates workplace mental health education. Section 6 addresses mass media and community campaigns. Section 7 considers methodological limitations and future directions, and Section 8 offers conclusions.

2. Theoretical Frameworks

2.1 The Attribution Model of Stigma

Corrigan's (2000) attribution model of stigma provides one of the most influential theoretical frameworks for understanding how mental health education might reduce stigmatising attitudes. The model proposes that stigma is driven largely by attributional processes: when people perceive a mental health condition as controllable (i.e., caused by the individual's own choices) or as dangerous, they are more likely to respond with blame and social avoidance. Mental health education interventions that correct these attributional errors — by providing accurate information about the neurobiological and psychosocial determinants of mental illness and by challenging the myth of dangerousness — should, in theory, reduce stigmatising attitudes and promote more supportive, prosocial responses.

The model further distinguishes between knowledge-based and contact-based mechanisms of stigma change. Whilst educational information can correct factual misunderstandings, personal or vicarious contact with someone who has a mental health condition — particularly positive, humanising contact that disconfirms stereotypical expectations — is hypothesised to produce deeper and more durable attitudinal change (Corrigan et al., 2012). This insight has shaped the design of many contemporary anti-stigma programmes, which combine informational content with testimonial or contact-based elements.

2.2 The Theory of Planned Behaviour

Ajzen's (1991) theory of planned behaviour (TPB) offers a complementary framework for understanding the determinants of help-seeking behaviour. TPB posits that behavioural intentions — and ultimately behaviour — are shaped by three factors: attitudes towards the behaviour (i.e., evaluations of help-seeking as beneficial or harmful), subjective norms (i.e., perceptions of whether significant others approve of help-seeking), and perceived behavioural control (i.e., beliefs about one's ability to seek help if needed). Stigma impacts each of these components: it generates negative attitudes towards help-seeking (because seeking support implies weakness or difference), creates social norms discouraging disclosure, and reduces perceived control by making help-seeking feel risky or shameful.

Mental health education that explicitly addresses all three TPB components — providing positive information about the benefits of help-seeking, challenging norms of silence and self-reliance, and building practical knowledge about how to access services — is therefore likely to be more effective in promoting help-seeking than education focused solely on knowledge transmission. This multi-component logic underpins the design of many mental health literacy programmes, including Applied Suicide Intervention Skills Training (ASIST) and Mental Health First Aid (MHFA).

2.3 Mental Health Literacy

Jorm et al.'s (1997) concept of mental health literacy — encompassing the ability to recognise specific mental disorders, knowledge and beliefs about risk factors and causes, knowledge about self-help and available professional help, and attitudes that facilitate recognition and appropriate help-seeking — has become a foundational construct in the field of mental health education. The mental health literacy framework is important because it situates knowledge not as an end in itself but as instrumental to action: the goal of mental health education is not merely to inform but to enable people to recognise distress (in themselves and others), respond to it constructively, and access appropriate support. Jorm (2012) reviewed evidence showing that mental health literacy programmes consistently improve knowledge and, to a lesser extent, attitudes and help-seeking behaviour, with the relationship between knowledge gain and behavioural change being mediated by attitudinal and normative factors.

3. Mental Health Education in School and University Settings

3.1 School-Based Programmes

Schools represent both a logical and a critical setting for mental health education. Not only do most mental health conditions first emerge during adolescence or early adulthood (Kessler et al., 2005), but schools also offer a captive audience and a structured environment in which sustained, developmentally sensitive education can be delivered. A meta-analysis by Wei et al. (2013) examined 19 school-based mental health literacy programmes and found significant improvements in knowledge and attitudes across intervention conditions, with moderate effect sizes. Programmes that included experiential or interactive components — such as role-play, discussion of personal narratives, and peer facilitation — produced larger effects than didactic information-only programmes.

The MindMatters programme, developed in Australia and widely adopted in secondary schools, is one of the more rigorously evaluated school-based mental health education initiatives. Hazell et al. (2002) found that MindMatters produced significant improvements in students' knowledge of mental health conditions and in attitudes towards help-seeking, with effects sustained at six-month follow-up. Critically, the programme was most effective when implemented within a broader whole-school approach to mental health promotion, rather than as a standalone educational unit — a finding that points to the importance of organisational context in shaping the impact of educational interventions.

In the United Kingdom, the introduction of statutory Relationships, Sex and Health Education (RSHE) guidance in 2020, which for the first time mandated mental health content in secondary school curricula, represents a significant policy development. However, concerns have been raised about the variable quality of implementation, the adequacy of teacher training, and the absence of rigorous evaluation frameworks (Department for Education, 2019). Without attention to implementation fidelity, even well-designed curricula are unlikely to realise their potential.

3.2 Higher Education Contexts

University students constitute a population of particular concern with respect to mental health stigma and help-seeking. The transition to higher education is associated with elevated risk for the onset of mental health difficulties, yet rates of help-seeking among students remain substantially lower than would be expected given the prevalence of distress. Evans et al. (2018) conducted a large survey of UK university students and found that whilst over a third reported a mental health condition, fewer than half of those had sought support from university services, citing stigma, uncertainty about whether their difficulties were serious enough, and concerns about confidentiality as key barriers.

A systematic review by Gulliver et al. (2010) identified stigma and embarrassment as the most frequently cited barriers to help-seeking among young adults in educational settings, ahead of practical barriers such as cost or access. Peer-facilitated mental health education programmes — in which trained student ambassadors deliver mental health awareness sessions to their peers — have shown particular promise in this context, as they leverage the social credibility and relational trust that peers hold amongst one another. A quasi-experimental study by Byrom (2018) found that a peer-facilitated mental health literacy programme at a British university produced significant reductions in stigmatising attitudes and significant improvements in help-seeking intentions, with effects strongest amongst male participants — a subgroup often identified as particularly resistant to help-seeking.

4. Contact-Based Interventions

4.1 The Evidence for Social Contact

Allport's (1954) contact hypothesis — the proposition that prejudice is reduced by positive, equal-status contact between members of in-groups and out-groups — has been extensively applied to the domain of mental health stigma. The analogy is imperfect, because mental health stigma is more diffuse and less clearly group-structured than the racial or ethnic prejudice Allport was primarily concerned with, but the core insight holds: face-to-face encounters with individuals who have lived experience of mental health conditions, under conditions of mutual respect and positive affect, tend to produce more meaningful attitudinal change than information-only approaches.

Corrigan et al. (2012) conducted a meta-analysis comparing the effectiveness of education-only and contact-based stigma reduction programmes across 72 studies and found that contact produced significantly larger effect sizes for attitudinal outcomes than education alone. Importantly, video-mediated

contact — in which participants watch a filmed testimonial from someone with a lived experience — produced effects comparable in magnitude to in-person contact, a finding that has significant practical implications for large-scale programme delivery. The Time to Change campaign in England, which ran from 2007 to 2021 and incorporated extensive social contact elements including pledges, social media engagement, and live contact events, produced measurable improvements in public attitudes towards mental health and in reported discrimination, as assessed by national survey data (Henderson et al., 2016).

4.2 Mechanisms of Contact-Based Change

Research by Reinke et al. (2004) and others has sought to identify the active mechanisms through which social contact reduces stigma. The evidence points to several processes: disconfirmation of stereotypical expectations (i.e., contact with a person who does not conform to media-driven stereotypes of mental illness), perspective-taking and empathy (i.e., the development of a more humanised and personalised understanding of the experience of mental illness), and the generation of positive affect associated with the interaction. Programmes that maximise these processes — by ensuring that contact figures present in a confident, articulate, and emotionally coherent manner, and that sessions are facilitated to promote reflective discussion — tend to produce the strongest effects.

Notably, the quality of contact appears to matter considerably more than its quantity. Brief, poorly facilitated contact events can, in some instances, reinforce rather than reduce negative attitudes, particularly if the individual sharing their lived experience appears acutely distressed or if the facilitated discussion is not managed sensitively (Corrigan et al., 2014). This underscores the importance of training and quality assurance in contact-based programme delivery.

5. Workplace Mental Health Education

The workplace is an increasingly important site for mental health education, not only because adults spend a substantial proportion of their lives in work but also because occupational environments can be both a source and a buffer of psychological distress. Mental Health First Aid (MHFA) — a structured training programme designed to equip non-clinical individuals with the skills to recognise, understand, and respond to mental health difficulties — is among the most widely adopted workplace mental health education initiatives. Originally developed in Australia by Kitchener and Jorm (2002), MHFA has been implemented in over 25 countries and has been designated as a key component of the UK government's mental health at work strategy.

A systematic review by Hadlaczky et al. (2014) synthesised evidence from 15 studies of MHFA and found significant improvements in mental health knowledge, attitudes, and confidence in providing support across all included studies. Effect sizes for attitudinal outcomes were in the moderate-to-large range, and improvements in help-seeking behaviour — particularly the willingness to refer a colleague to professional support — were also observed. Importantly, MHFA training was associated with reductions in self-stigma among participants who themselves had mental health difficulties, suggesting that education-based interventions can produce inward-facing as well as outward-facing attitudinal change.

Beyond MHFA, a growing literature examines the impact of broader organisational mental health literacy programmes on workplace culture and help-seeking norms. Dimoff et al. (2016) conducted a randomised controlled trial of a workplace mental health literacy training programme and found that trained managers were significantly more likely to engage in supportive conversations about mental health with their team members, and that employees in trained-manager conditions reported greater willingness to disclose mental health difficulties and seek support. These findings highlight the importance of hierarchical dynamics in shaping help-seeking norms: when leaders visibly normalise mental health conversations, the implicit permission to seek help within their teams increases correspondingly.

6. Mass Media and Community Campaigns

Mass media campaigns represent the broadest-reach modality of mental health education, with the capacity to reach entire populations simultaneously. The evidence for their effectiveness is, however, mixed. Thornicroft et al. (2016), in a comprehensive review of anti-stigma campaigns globally, concluded that mass media campaigns produce modest and often short-lived improvements in public knowledge and attitudes, with limited evidence of impact on help-seeking behaviour or structural discrimination. The limitations of mass media

approaches reflect well-understood principles of health communication: passive exposure to information, without interactive engagement or personal relevance, rarely produces lasting behaviour change.

Nevertheless, well-designed media campaigns that combine emotional resonance, personal narrative, and clear calls to action have shown more promising results. The Time to Change campaign in England — which employed a combination of social advertising, celebrity endorsement, community events, and digital media — is one of the most thoroughly evaluated population-level anti-stigma initiatives. Henderson et al. (2016) found that national survey data collected over the campaign period showed a gradual but consistent improvement in public attitudes towards people with mental health conditions, alongside reductions in self-reported discrimination among people with lived experience. The campaign was less effective in changing behaviour than in changing attitudes, a pattern consistent with the broader literature and reflective of the gap between attitudinal intention and actual behaviour that the theory of planned behaviour illuminates.

The Every Mind Matters campaign, launched by Public Health England in 2019, pursued a slightly different strategy: rather than focusing primarily on stigma reduction, it sought to normalise mental health self-care and encourage proactive engagement with available resources, including an online mental health action plan tool. Early evaluation data suggested that the campaign successfully increased awareness of mental health resources and prompted a proportion of viewers to take concrete action, including searching for information and contacting services (Public Health England, 2020). The campaign's focus on universal emotional health — rather than mental illness per se — may have reduced the stigma-activation risk that sometimes accompanies illness-focused messaging.

7. Limitations and Future Directions

Across the literature reviewed, several methodological weaknesses recur with sufficient consistency to warrant explicit acknowledgement. Most fundamentally, the field suffers from an overreliance on self-report outcome measures, particularly for stigma and help-seeking. Attitudinal measures — even well-validated instruments such as the Community Attitudes towards the Mentally Ill (CAMI) scale and the Attribution Questionnaire — assess what participants are willing to say about their attitudes in a research context, not necessarily how they behave in everyday social situations. The gap between attitudinal intention and actual behaviour is well established in social psychology (Wicker, 1969) and is a persistent challenge for interpretation of stigma research.

There is also a notable paucity of long-term follow-up data. The majority of studies reviewed assessed outcomes immediately post-intervention or at follow-ups of three to six months, leaving questions about the durability of educational effects largely unanswered. This is particularly important given evidence that attitude change in contact-based interventions may fade over time without reinforcement (Corrigan et al., 2014). Longitudinal designs with repeated measurement over twelve months or more are needed to establish whether mental health education produces sustained change or merely transient shifts in reported attitudes.

A further limitation concerns the treatment of help-seeking as a binary or unidimensional construct. In practice, help-seeking encompasses a range of behaviours — disclosing to a friend, consulting a general practitioner, accessing a self-help resource, contacting a crisis line — that may be differentially influenced by stigma and differently responsive to educational interventions. Future research should disaggregate help-seeking into its constituent behaviours and identify the specific mechanisms through which education influences each.

Finally, the field would benefit from greater attention to implementation science. It is increasingly recognised that programme effectiveness is not solely a function of content quality but also of delivery context, facilitator training, organisational climate, and the alignment between programme design and the needs of the target population. Frameworks such as the Consolidated Framework for Implementation Research (Damschroder et al., 2009) offer useful tools for systematically examining these contextual influences and for building a cumulative knowledge base about what works, for whom, and under what conditions.

8. Conclusion

This review has examined the evidence base for mental health education as a strategy for reducing stigma and promoting help-seeking

behaviour. The overarching conclusion is one of cautious optimism. There is credible evidence that well-designed, theoretically grounded, and appropriately targeted mental health education can produce meaningful reductions in stigmatising attitudes and measurable improvements in help-seeking intentions, particularly when it incorporates interactive and contact-based elements rather than relying solely on didactic information provision. Contact with individuals who have lived experience of mental health conditions emerges consistently as one of the most potent mechanisms of change, whether delivered in person or through video testimony.

At the same time, the evidence also reveals the limits of education as a stigma-reduction strategy. Knowledge alone rarely translates into behaviour change. Stigma is deeply embedded in cultural norms, media representations, institutional practices, and individual psychological processes that educational interventions alone cannot dismantle. A comprehensive approach to reducing mental health stigma must therefore combine individual-level educational efforts with structural interventions — including reform of media representations, anti-discrimination legislation, equitable resource allocation for mental health services, and organisational culture change in workplaces and schools.

The people who most need support are often those least likely to seek it. That is not simply a clinical problem; it is a social and moral one. Addressing it demands not only better education but a genuine cultural shift — a collective willingness to treat psychological suffering with the same openness, compassion, and urgency that we extend to physical illness. Mental health education, at its best, contributes to that shift. It will not achieve it alone.

References

Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behavior and Human Decision Processes,* 50(2), 179–211.

Allport, G. W. (1954). The Nature of Prejudice. Addison-Wesley.

Byrom, N. (2018). An evaluation of a peer support intervention for student mental health. *Journal of Mental Health,* 27(3), 240–246.

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice,* 7(1), 48–67.

Corrigan, P. W., & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry,* 1(1), 16–20.

Corrigan, P. W., Morris, S. B., Michaels, P. J., Rafacz, J. D., & Rüsch, N. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services,* 63(10), 963–973.

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest,* 15(2), 37–70.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science,* 4, 50.

Department for Education. (2019). Relationships education, relationships and sex education (RSE) and health education: Statutory guidance for governing bodies, proprietors, head teachers, principals, senior leadership teams, teachers. DfE.

Dimoff, J. K., Kelloway, E. K., & Burnstein, M. D. (2016). Mental health awareness training (MHAT): The development and evaluation of an intervention for workplace leaders. *International Journal of Stress Management,* 23(2), 167–189.

Evans, T. M., Bira, L., Gastelum, J. B., Weiss, L. T., & Vanderford, N. L. (2018). Evidence for a mental health crisis in graduate education. *Nature Biotechnology,* 36(3), 282–284.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry,* 10, 113.

Hadlaczky, G., Hökby, S., Mkrtchian, A., Carli, V., & Wasserman, D. (2014). Mental Health First Aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: A meta-analysis. *International Review of Psychiatry,* 26(4), 467–475.

Hazell, T., Calear, A. L., Banfield, M., & Christensen, H. (2002). Mindmatters, a whole-school approach promoting mental health and wellbeing.

Australian and New Zealand Journal of Psychiatry, 36(2), 186–194.

Henderson, C., Potts, L., & Robinson, E. J. (2020). Mental illness stigma after a decade of Time to Change England: Inequalities as targets for further improvement. *European Journal of Public Health,* 30(3), 526–532.

Henderson, C., Robinson, E., Evans-Lacko, S., & Thornicroft, G. (2016). Relationships between anti-stigma programme awareness, disclosure comfort and intended help-seeking regarding a mental health problem. *British Journal of Psychiatry,* 211(5), 316–322.

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). Mental health literacy: A survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia,* 166(4), 182–186.

Jorm, A. F. (2012). Mental health literacy: Empowering the community to take action for better mental health. *American Psychologist,* 67(3), 231–243.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry,* 62(6), 593–602.

Kitchener, B. A., & Jorm, A. F. (2002). Mental Health First Aid training for the public: Evaluation of effects on knowledge, attitudes and helping behavior. *BMC Psychiatry,* 2, 10.

Public Health England. (2020). Every Mind Matters campaign: Year one evaluation findings. PHE.

Reinke, R. R., Corrigan, P. W., Leonhard, C., Lundin, R. K., & Kubiak, M. A. (2004). Examining two aspects of contact on the stigma of mental illness. *Journal of Social and Clinical Psychology,* 23(3), 377–389.

Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., & Henderson, C. (2016). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet,* 387(10023), 1123–1132.

Wei, Y., Hayden, J. A., Kutcher, S., Zygmunt, A., & McGrath, P. (2013). The effectiveness of school mental health literacy programs to address knowledge, attitudes and help seeking among youth. *Early Intervention in Psychiatry,* 7(2), 109–121.

Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues,* 25(4), 41–78.

World Health Organisation. (2022). World Mental Health Report: Transforming Mental Health for All. WHO.

NIU Journal of Social Sciences Copyright©2025
Nexus International University ISSN: *3007-1682*; 11(3): 165–173

Social Factors Affecting Recidivism Among Ex-Convicts in Nigeria

ADAMU AHMED, NAFIU ABUBAKAR MODIBBO,
IBOME BULMEN HABILA
Gombe State University, Gombe, Nigeria

Abstract. Recidivism, the consistent return of ex-prisoners to offences, persists in Nigeria, reflecting the structural defects in the nation's criminal justice and correctional services. The study attempts to examine the nature and extent of recidivism in the light of the services provided by the Nigerian correctional services in terms of reformation and rehabilitation. It is a systematic content analysis studious the use of secondary data in making conclusions. High recidivism is indicative of other issues, including insufficient rehabilitation programs, social stigmas, and economic struggles ex-felons have after they leave prison. This research examines the various elements leading to recidivism in Nigeria underscore the role of prison rehabilitation, unemployment, peer pressure, and lack of a support system. In these correction facilities, effective vocational training and psychological aid are relatively absent, so ex-prisoners are poorly equipped to enter the workforce. Furthermore, the negative effect of the stigma attached to having a criminal record, combined with the difficulty of obtaining stable employment, is an important contributor to habitual offending. Factors of peer and reintegrative effects of ex-convicts also make the problem worse. Building on Agnew's General Strain Theory, the current study connects strain (e.g., unemployment, rejection, and social support deprivation) with higher recidivism. The study suggests that widespread reform is needed, such as improved rehabilitation programs, public consciousness drives to reduce stigma, job assistance, and greater support systems for post-release, to fully facilitate a successful reintegration. The solution to these factors is important to reducing the recurrence of criminals, making Nigeria safe, and building an all-embracing society.

Keywords: Social Degradation, Recidivism, and Ex-convicts.

1. Introduction

The need to understand the conditions in which ex-prisoners decide to go back to what landed them in jail in the first place (Recidivism). High rates of recidivism reflect fundamental problems with Nigeria's criminal justice and correctional services systems, and larger societal problems that impact offender rehabilitation (Okunola, 2017). This vicious circle of recidivism is a waste of the efforts of our justice system and continues to be a direct burden to the population of the country. Explanation given to the reasons for recidivism is essential in designing holistic and successful rehabilitation programs that lead to eventual decrease in re-offending and better societal re-entry.

Social or hidden degradation is a situation in which the social environment denies ex-convicts' friendship, marriage, association, etc., partly because they have once served a sentence. It is indeed another form of punishment in which only the ex -convict is aware of. Habitual offending, also known as recidivism, is considered a condition where ex-convicts find returning to criminal violation as either normal or derive pleasure from it without any fear of the consequences. Meaning, those who have served a prison term return to criminal violations primarily because of certain factors that are either unappealing or because they lack the opportunity to be accepted back into society as law-abiding citizens.

In Nigeria, one of the major reasons for recidivism is the inadequacy of the correctional facilities to offer effective rehabilitation programs. Few of the Nigerian detention centers provide effective vocational education or academic and psychological support, and those that do are underfunded. Adeyanju (2020)

noted that the absence of holistic rehabilitation programs is the reason why most ex-convicts are ill-equipped for life out of the prison walls, as a significant factor that causes them to be recidivists. 'Without positive outlets for learning new skills through achievement and a source of emotional support, prisoners find it hard to fit back into everyday life and very often resort to re-offending as a coping mechanism.

The stigma of society is also a major factor for recidivism, thereby causing a convicted offender to be repunished by society (Hidden degradation). Convicted offenders in Nigeria, similar to other locations, experience severe social stigma, with challenges accessing employment and reintegration into the society at large (Akinmoladun et al., 2019). Their isolation and hopelessness are worsened when they are socially excluded, shunned by family and friends — these all could push them back into criminality (Osayi, 2021). Marked as a result of punishment, outcasts are further disposed of, which makes it difficult for ex-offenders to enjoy the basic social services and support that provide work, helping to sustain the cycle.
Poverty also leads to recidivism amongst former prisoners. The inability to secure a decent and sustainable job placement is also what pushes the ex-convicts into abject poverty, thus enhancing the high tendency of them getting back to crime to fend for themselves(financially) (Abifor & Eze, 2016). According to Okunola (2017), lack of employment and economic empowerment constitutes a major factor leading to recidivism, as witnessed especially in Nigeria, where the economy has structural problems, and unemployment is in double-digit figures. Suppressing their economic hardship, ex-prisoners also bear the burden of a criminal record and operating in a hostile world. It is not an easy task to make a living after prison.

Peer pressure and external environment have an important role to play in predicting Recidivism. Most ex-offenders return to neighborhoods where such behavior is not just common but also accepted as normal, and a lack of positive models won't help their temptation to commit crime once again (Adeyanju, 2020). Peer groups, especially those engaged in illegal behavior, play an important role in determining how an individual will behave when there are minimal options to earn an economic livelihood. According to Soyombo (2019), ex-offenders are often discouraged from adopting positive habits after release — such habits may be undesirable in their old social circles, and the inability to detach may be a factor that encourages re-offending.

In view of all these, addressing recidivism in Nigeria will require multifaceted approaches that are broader than prison rehabilitation. Policy changes are required to empower both rehabilitation programs in the correctional institutions and post-release support systems, to reduce the prejudice of society (Adeyanju 2020) and create more jobs for the former criminals. Additionally, by creating a more conducive environment for reintegration, for instance, rolling out community-based programs that help foster social acceptance or eliminate the obstacles to reentry, the cycle of re-offending can be broken.
Implementing rehabilitation programs which encompass vocational training, Psychotherapy and support networks, along with a redefinition of societal values to break the stigma and to provide better economic opportunities, are central in the strategy to tackle recidivism in Nigeria (Osayi, 2021). Nigeria can begin addressing the systemic and social causes of offender recidivism, and work toward lowering its alarmingly high rates of recidivism and curbing the Recidivism rate of ex-convicts.

2. Theoretical Framework: General Strain Theory (GST) and Recidivism

General Strain Theory (GST) of Robert Agnew was developed as the next logical extension of classic strain theories such as Merton's (1938). In contrast to Merton's focus on social structures and their goals, Agnew's GST is more of an individual-level theory of the strain effect, proposing that strain can induce negative emotions such as anger and frustration, and that these emotions, when extreme, are associated with increased likelihood of criminality. Under GST, people react to stress in terms of their history and resources (Agnew, 2001). In the absence of legitimate outlets to address stress, some people may turn to crime as a means of escape or response (Agnew, 2006).

The article rests on Agnew's General Strain Theory (GST) to examine predictors of recidivism in Nigeria, ex-convicts. GST suggests that individuals who feel stressed or strained are at greater risk of involvement in deviant and delinquent behavior, including Recidivism upon release. Agnew's general strain theory suggests that strain arises when people experience a range of stressors (e.g., failing to achieve positively valued goals, the loss of valued relationships, or exposure to

negative stimuli) that can, in turn, increase the probability of crime, especially in the absence of adequate coping strategies (Agnew, 2001). In the case of ex-offenders, factors such as unemployment, stigma, and absence of social support are important re-offending triggers, as they obstruct successful reintegration in community.

This research utilizes Robert Agnew's General Strain Theory (GST) for understanding the factors that contribute to re-offending by ex-convicts in Nigeria. According to GST, individuals under stress or pressure are more likely to respond with deviant or delinquent activities, such as re-offending after being released from prison. According to Agnew, strain is caused by different stressors, like failing to achieve positively valued goals, losing valued relationships, or experiencing negative stimuli that can increase the probability of criminal actions, especially if a person has no efficient coping methods (Agnew, 2001). For ex-offenders, stressors such as unemployment, stigma, and lack of social support are important factors that can influence Recidivism by impeding successful re-entry into society.

Agnew's GST specifies different strains that have the potential to instigate criminal action. Failure to attain positively valued goals – They do not obtain well-regarded social or cultural accomplishments (employment, money, and relationships). Loss of valued relationships – The loss of important social relationships (e.g., family, friends, or romantic relationships), which can be emotionally distressing. Negative treatment – This refers to a person being exposed to negative conditions that are aversive, such as abuse, discrimination, and poor living conditions (Agnew, 2006).

These forms of strain are what former prison inmates in Nigeria experience in different forms, which ultimately push them back into crime. Former prisoners experience many of these obstacles in ways that match the dimensions of strain identified in Agnew's theory — like social rejection, financial burdens, and lack of support systems.

3. Factors Affecting Influencing Recidivism Among Ex-convicts in Nigeria

Unemployment is one of the largest drivers of recidivism among former inmates. It is a well-known fact that most people released from prison find it very difficult to obtain a secure job because of the stigma of being a former offender and their inability to regain their place in the labor market (Ugwuoke, 2017). Unemployment, which is not stable for security and sustenance, also contributes to pressures related to the economy and frustration for those who are involved in tailoring and dressmaking. It results in demoralization and hopelessness (Osayi, 2020). According to general strain theory, individuals who experience financial strain, in this case unemployment, turn to deviant coping, including criminal coping. A person of ex-convicts finds it inevitable to get involved in acts that will lead to arrest. In situations of this nature, they are unable to fend for themselves, making them vulnerable to re-offending (Akinmoladun, 2018).

Agnew (2006) Claims the failure to obtain legitimate access to succeed within a society or not being able to attain financial independence through just means triggers negative emotions such as anger and frustration that lead to delinquency. In Nigeria, a lot of former prisoners feel like outcasts because of the poverty they fall into, leaving them vulnerable to recidivism as a survival strategy. Research shows that deprivation is one of the most powerful predictors of recidivism (Adeyanju, 2020).

A second very significant strain that contributes to Recidivism is the negative impact on reentering individuals who have a criminal record. Former convicts are mostly socially rejected by individuals in officers, families, and the larger society, thereby disconnecting them and raising their level of desperation and low self-esteem (Soyombo, 2019). The former prisoners tend to suffer discrimination due to the social stigmatization of having served time in jail in Nigeria, which makes it difficult for an ex-prisoner to reintegrate into society. Such social exclusion is a big stressor on people, leading them into crime simply to manage the mental and emotional effects of social rejection.

Agnew, 2001 theory posits that when an individual is confronted with social strain and the loss of valued relationships or failure to gain societal acceptance, they may react with criminal behavior. This triggers feelings such as frustration, resentment, and hostility, which appears peak at the moment of re-offending. Lack of social support or positive models also puts ex-convicts at higher risk to reoffend (Ugwuoke, 2017). Thus, one major contributor to recidivism in the context of ex-convicts in Nigeria is that this stigmatization adds other

emotional and social pressure, which makes criminal conduct more attractive.
The absence of family and community support is another pressure that leads to recidivism. Ex Offender Reentry& Aftercare Services. When they are not prepared, supported, or guided emotionally or financially, ex-prisoners feel isolated and frustrated (Osayi, 2020). Their stress is compounded by the fact that they can't turn to family or community networks for support or guidance -- which makes their reintegration harder. Agnew (2006) suggests that people are more prone to crime when they experience strain from the absence of valued relationships, such as family support.

For labor market offenders, family bonding may be an important factor in the assimilation process of ex-convicts. Yet, without the emotional or practical support to cope with this loss of family connectivity, feelings of abandonment and despair can be further compounded. This pressure is more severe in Nigeria, where the family and the community form the bulk of the traditional support systems that are central to reintegration (Soyombo, 2019). Without that support, ex-prisoners often succumb to insurmountable barriers and end up re-offending.

Apart from the above, peer pressure and situating oneself in negative environments are key components of strain in recidivism. Ex-convicts frequently return to settings where criminal conduct is made ordinary, and the desire to leaf once more through the old crime-playbook cannot be underestimated (Adeyanju, 2020). Agnew's (2001) GST holds that those who are exposed to negative stimuli, like criminal peers, and situations that are conducive to crime, will be more likely to return to a delinquent lifestyle. In Nigeria, for instance, once released, ex-offenders can reintegrate into crime-ridden communities, where a lack of positive role models and legitimate sources of income pressure them into crime.

4. Dynamics of Recidivism Among Ex-Convicts in Nigeria

In a general sense, many factors play a key role in determining recidivism conditions among ex-convicts, and these include individual, institutional, societal, and environmental considerations. These elements are linked with each other and represent the inseparability of offender reintegration into society. Understanding these conditions is important to developing successful programs for lowering recidivism and maintaining public safety; thus, it examines the dynamics of recidivism amongst ex-prisoners, including socio-demographic, institutional, societal, family, economic, and environmental dynamics.

Socio-Demographic: Study after study has found some socio-demographic variables, such as age, sex, and level of education, to be strong predictors of recidivism. Youth, especially those in their late teens and early twenties, have significantly higher recidivism rates than older adults (Abrifor et al. 2012). Perhaps that is largely because of developmental reasons, as young men in their 20s may not yet have developed the emotional strength and impulse control needed to live productively outside of prison. Younger offenders are less cognizant of the long-term effects of their behavior than those who are older, rendering them more impulsive and susceptible to recommitting a crime" (Adeyanju, 2020, p.9).

Second, gender also influences the recidivism tendency. The majority of the prison population is male, and men are more likely to re-offend. This gap is driven in great part by the ideal of masculinity that is prevalent in society, where it's still expected that men should be the breadwinners and hold a certain position in society. If men experience economic strains or cannot conform to social expectations upon release, they may be inclined to engage in criminal activities to reassert their status or obligations (Okunola, 2017). In addition, male ex- offenders face a greater likelihood of obstacles to obtaining steady employment and may be more vulnerable to being influenced by the criminal behavior of friends.

Level of education is the other important social demographic variable associated with recidivism. Less educated former prisoners are likely to re-offend because they face limited chances of securing jobs. As Osayi (2021) pointed out, education and a trade are necessary for successful reentry. Failure to be educated and lack of job skills tend to increase the tendency of being reoffended among ex-prisoners who, to keep an existence, become out-and-out crooks. Soyombo (2009) has validated this, where some people who have not had the opportunity to go through formal education may be pushed into crime when they are released from detention, because they may not be able to secure good jobs.

The rehabilitation process within the prison system is of utmost importance in reducing recidivism. Insufficient rehabilitation, such as job training, educational programs, and psycho-

social counseling, continues to result in high rates of recidivism. Otu (2015) reported that incomplete rehabilitation has been identified as the cause of recidivism among ex-convicts. At most Nigerian prison facilities, overcrowding, lack of facilities, and poor training compound the failure of rehabilitation. Therefore, when most inmates leave prison, they do not possess the skills that they need to reenter society, and re-offending becomes a real option.

Additionally, substandard living conditions in prison are strongly associated with re-offending. These difficult circumstances, which include insufficient food, no access to medical care, and overcrowding, lend themselves to an environment that can augment psychological stress and trauma. Former inmates also avenge refusals in many cases and can also recommit by way of further criminal activity (Adeyanju, 2020). The trauma in a prison is said to be dismal as a malaise that reinforces hopelessness and estrangement, and which enhances the odds for re-offense (Ugwuoke, 2017).

Furthermore, a majority of Nigerian prisons do not have in-house psychologists to offer counselling and psychological counselling/ treatment. Ex-offenders are not well equipped with coping skills for reintegration without treating their psychological needs (e.g., anger management, depression, and addiction (Otu, 2015). Many prisoners have mental health issues or need therapeutic assistance that is not available; they are being released with unresolved mental/emotional problems, and they re-offend.

Ex-convicts are typically stigmatized and shunned once they re-enter society, making their reintegration process very difficult. Stigmatisation means the negative branding of people with criminal backgrounds, which brings discrimination to bear on employment, housing, and social inclusion. As Osayi (2021) observes, ex-prisoners barred from society feel alienated and estranged, which makes successful re-entry difficult. Their criminal record stigma reduces their chances of getting a stable job, and that creates anger and frustration, which will cause recidivism (Ugwuoke, 2017).

According to Soyombo (2009), lack of family support could heighten the sense of being abandoned, hopelessness, and loneliness, and also compel ex-prisoners into re-engaging in crime as a mechanism of dealing with their circumstances. For reformation, it is necessary to have the social and emotional support of the family, and its absence would impede the rehabilitation process.

Furthermore, the local community must accept the returnee into the society. Studies show that when ex-prisoners return to crime-friendly environments or communities that don't want them, the chance they will reoffend is greater. It is emphasized that communities ought to have an increased input into embracing released offenders and facilitating their re-entry (Adeyanju, 2020). Community-based programs designed around inclusion and reduction of stigma can reduce recidivism by giving ex-prisoners the social support and acceptance that will keep them out of the crime cycle.

Unemployment and the absence of job opportunities are important factors for repeat offenses. In Nigeria, former inmates encounter barriers in their attempt to secure jobs after being released from prison and returning to society due to their criminal background. This condition casts "ex-prisoners into the shadow land of personal and social despair." (Ugwuoke, 2010) Many ex-prisoners are portrayed as individuals who do not have the financial means to fend for themselves and their families after discharge from prison, thereby facing financial pressures and a higher risk of returning to criminality. The financial struggle, added to the pressure and despair an ex-inmate has to endure, contributes to leading him into involvement in the world of crime as a way to ease the pain.

Poverty is also an important economic driver of recidivism. Former convicts let out with nothing – and no work options – face a far greater chance to go back to the future. Adeyanju (2020) posits that it is almost impossible to struggle to make a living without resorting to crime. In Nigeria, the situation is the same, as unemployment is high and the economy is under severe pressure. Such individuals make minimal wage with no access to job training and constantly face the burden of being labeled an ex-convict.

Most former convicts return to communities of criminal culture and ex-cons, which is where they most likely link up with their criminal brethren. Soyombo (2009) also reports that peer pressure is one of the factors responsible for the recurrence/repetition of criminality, as ex-convicts often claim to have been linked to committing crime with familiar criminal coaches/peers.

At last, living in an area of high crime, poverty, and poor educational or employment

accessibility can lead to recidivism. Ex-inmates who return to a community life with crime and violence are more likely to revert to old habits. As opined by Adeyanju (2020), the social environment is also an important determinant of behavior, and ex-prisoners who return to neighborhoods with a high level of criminal activity are more likely to struggle to desist from previous criminal influences.

5. Challenges in Controlling Recidivism in Nigeria

Recidivism, a phenomenon in which ex-convicts tend to re-offend, is a never-ending battle in the Nigerian criminal justice system. Many barriers hinder the reintegration or rehabilitation of former prisoners back into society, while discrimination and prejudice continue to increase the rate of recidivism among ex-inmates in Nigeria. These problems can be anything from an insufficient rehabilitation need behind bars, to the stigma of society, trouble keeping and getting a job, and poor post-release support. To combat these impediments, more holistic reforms are required that directly tackle the proper rehabilitation and reintegration of the formerly incarcerated.

One of the major causes of recidivism in Nigeria is the absence of effective reformation programs in the correctional institutions. Rehabilitation is essential to the reformation of inmates, equipping them with the skills and emotional support they need to return to society. Nevertheless, most Nigerian correctional facilities are characterized by so much congestion, poor facilities, and a deficiency of qualified staff; hence, the inadequate provision of rehabilitation programs (Otu, 2015).

As Otu (2015) reports, Nigerian prison facilities are overstretched with over-crowding of prisoners beyond their built capacity. This congestion also makes it hard to provide personalized rehabilitation services, including vocational training and counseling to cope with psychological trauma. There are a few centers that have schools or simple vocational skills training, and they are not well supported, nor are they well managed. As a result, too many ex-convicts exit prison without the necessary know-how and support to get through life on the outside and have a much better chance of re-offending.

Counseling is a key aspect of the rehabilitation and an important rider. Most prisoners have some kind of psychological and emotional problems, for example, depression, anger, post-traumatic stress disorder, etc., left untreated, can be a source of re-offending. Nevertheless, according to Otu (2015), the lack of mental health professionals and counselling facilities in prisons further heightens the emotional and psychological load experienced by inmates, and with this development, it will be difficult for them to change.

One of the most difficult hurdles to manage related to recidivism in Nigeria is societal stigmatization of the ex-convicts after their release. Ex-convicts in Nigeria are stereotyped and suffer stigmatisation. The stigma can greatly influence their ability to integrate with society; they are discriminated against in many areas of life, such as in work, housing, and interpersonal relationships (Osayi, 2013).

Osayi (2013) says that having a record or association with a record causes distinct social isolation in Nigeria. Most prisoners are isolated from their families, their home communities, and from broader society. This exclusion is a barrier to housing and health and pushes them to the margin, preventing their reintegration. In addition, the stigmatization of ex-convicts by society can lead such individuals to hopelessness, leading to emotional estrangement and re-offending (Osayi, 2021).

The social exclusion of former prisoners is not only confined to informal structure, but also finds expression in formal institutions (workplace, education) as well. Many employers are reluctant to hire people who have committed a crime, for fear that their reputation may be tarnished or that criminals will be more likely to offend again. This discrimination has deprived ex-prisoners of opportunities to turn their lives around, and this encourages them to reoffend to make ends meet (Osayi, 2021). Thus, social perceptions must be altered to foster a community in which ex-offenders are not just welcomed, but also given a chance to add value.

One of the most important causes of recidivism in Nigeria is a lack of jobs. Former inmates are frequently barred from securing stable employment because of the stigma of their criminal past. In a society with poor employment generation, such as Nigeria, the chances of getting a job are limited in the case of an ex-convict (Ugwuoke, 2010). There are no jobs for ex-cons. This leads to poverty and anger, and ultimately results in their choosing crime instead.

Economic hardship is a major predictor of recidivism, as stated by Ugwuoke (2010). If this were in danger of happening for a whole group of ex-cons who can't find employment (maybe because of their criminal record), they may feel the pressure of financial woes and may opt to resort to crime, like theft, drug peddling, or fraud. The dire need to access necessities such as food, shelter, and medical services sometimes drives people to engage in crime to fend for themselves (Ugwuoke, 2017). Nowhere is this truer than in Nigeria, where many live in a state of economic precarity due to the massive poverty rate; thus, ex-prisoners are especially prone to recidivism.

In addition, there is the problem of a lack of professional training and job skills training in the correctional system. Ex-prisoners will have few options for formal employment that they were not trained for/competent at. According to Adeyanju (2020), prison-based vocational training programmes can significantly reduce rates of Recidivism among released inmates if the ex-offenders possess additional work-related skills. But many released convicts are unready to work because of a lack of opportunities and the insufficiency of useful programs.

Lack of strong post-release networks is also another difficulty that result to high recidivism in Nigeria. (1998) Successful reinsertion into society is dependent on such strong support structures as halfway houses, mentoring programs, and community approaches. However, these processes are routine failures in Nigeria, with ex-convicts being returned to the community without the necessary support networks to reintegrate into society (Soyombo, 2009).

Soyombo (2009) observes that the reintegrating of ex-prisoners is likely to revert to their old ways if they do not receive adequate support. Halfway houses, which offer transitional living for former inmates, are few in Nigeria, and when available, they are usually underfunded and poorly managed. Such facilities can offer the stability of housing, emotional support, and connections to job leads in the early phase of reintegration. Without these resources, former prisoners are more likely to reoffend.

Good mentorship programs may also help reduce recidivism as ex-convicts are guided by those who have successfully integrated into society. Mentors can also provide advice and encouragement on how to navigate the challenges of reentry. This is not a common practice in Nigeria and was limited to a few community-based organizations (Soyombo, 2009). It all adds up, and it is no wonder that many parolees struggle horribly to adapt to life outside jail, which is why the repeat-offender rate is seriously high.

6. Conclusion

The problem of recidivism in Nigeria is deeply embedded in the failings of the criminal justice system and exacerbated by societal and economic factors. Former prisoners are usually hampered by obstacles that hinder their successful re-integration such as insufficient reformation programmes in prison, social stigma, absence of job potentials, and feeble support structures after release. These issues stop ex-offenders from adjusting to the outside world and make them more prone to criminal behavior for survival. Meeting these challenges will require a range of reforms, including the improvement of rehabilitation programs inside prisons, lessening the stigma with public-awareness campaigns, economic opportunities, and effective post-release support. By addressing the causes of recidivism and giving ex-offenders what they need to reintegrate, Nigeria would go a long way in ensuring people do not reenter a life of crime, reduce Recidivism rates, increase public safety, and build inclusive and supportive communities.

7. Recommendations

To control the plague of recidivism in Nigeria and to make recidivists less prone to repeating their acts, the following remedial measures are recommended:

By offering stronger and more effective rehab, such as vocational training, education, and psychological assistance, prisons can arm offenders with the means to get back on their feet. Rehabilitation programs that work would enable prisoners to acquire new skills and treat any psychological problems they may have, which may be contributing to Recidivism.

Public education campaigns are instrumental in breaking-down the social stigma that is associated with ex-convicts returning to society post-sentence. The social stigma of a felony record makes it hard to find a job, to rent a place to live, and to be accepted among peers. Public education campaigns that encourage acceptance of ex-offenders, as well as educate individuals about consistency and second chances, can reduce the impact of that stigma.

It is suggested that employment opportunities can help to reduce recidivism because there is such a stigma associated with having a criminal record. Many individuals who were placed in incarceration find themselves financially destitute. There are reasons as to why there is a recidivism rate in this country that is way too high. Giving job opportunities and employment training to ex-convicts goes a long way toward alleviating that economic strain. Ex-prisoners are less likely to resort to a life of crime if they have pathways to stable employment. Furthermore, vocational training programs meant to equip former prisoners with employable skills can increase their employability and enable easier reintegration.

Lastly, stronger after-release support is critical to ensure long-term success. Ex-prisoners frequently meet psychological and practical difficulties in re-entering the outside world, and left to their own devices, they are likely to return to their criminal ways. Mentorship programs, a network of community support, and post-release counselling can help ex-cons find their feet. These systems of support can work to solve issues like housing and family reunification and provide a source of possible financial security, giving men who have been imprisoned the resources they need to become successful members of society again. Through this rehabilitation, societal acceptance, economic empowerment, and post-release system, Nigeria can take giant strides in the reduction of recidivism and in the successful reintegration of ex-prisoners.

References

Abifor, C., & Eze, I. (2016). The economics of recidivism and reintegration in Nigeria: Challenges and opportunities. *African Journal of Criminology and Justice Studies*, 10(4), 234-248.

Abrifor, C., Eze, I. O., & Adeyanju, A. (2012). Socio-demographic predictors of recidivism in Nigeria. *African Journal of Criminology,* 7(3), 125-138.

Adeyanju, A. (2020). Rehabilitation and recidivism: A critique of Nigeria's prison system. *International Journal of Criminology,* 10(2), 74-89.

Adeyanju, A. (2020). Rehabilitation and reintegration of ex-prisoners in Nigeria: A critique of prison reform strategies. *Nigerian Journal of Criminology,* 15(1), 45-58.

Agnew, R. (2001). Building theory in criminology: General strain theory. *Journal of Research in Crime and Delinquency,* 38(3), 213-237.

Agnew, R. (2006). Pressured into crime: An overview of general strain theory. In J. M. Miller, M. J. D. Schwartz, & J. F. Hagan (Eds.), The handbook of criminological theory (pp. 93-121). Wiley-Blackwell.

Akinmoladun, S. O., Adebayo, S. A., & Eze, I. O. (2019). Stigmatization and recidivism among ex-prisoners in Nigeria. *Journal of Nigerian Criminology,* 14(4), 135-150.

Akinmoladun, S. O., Adebayo, S. A., & Eze, I. O. (2019). Stigmatization and recidivism among ex-prisoners in Nigeria. *Nigerian Journal of Social Sciences,* 14(2), 122-136.

Okunola, R. A. (2017). Factors influencing recidivism among ex-convicts in Nigeria: A review of recent literature. *International Journal of Social Issues,* 12(3), 89-102.

Osayi, G. (2013). Stigmatization and recidivism: Social exclusion and reintegration of ex-prisoners in Nigeria. *Journal of Public Health,* 19(2), 112-125.

Osayi, G. (2021). The effects of social exclusion on ex-convicts in Nigeria: Challenges and opportunities for reintegration. *African Journal of Public Health,* 18(1), 100-115.

Osayi, G. (2021). The effects of social exclusion on recidivism among ex-convicts in Nigeria. *African Journal of Public Health,* 18(1), 100-115.

Otu, A. I. (2015). Institutional factors in preventing recidivism in Nigerian prisons. *Journal of Correctional Services,* 12(1), 89-104.

Soyombo, O. (2009). Peer influence and recidivism among ex-prisoners in Nigeria. *Journal of Crime and Social Studies,* 8(4), 312-324.

Soyombo, O. (2009). The role of post-release support systems in reducing recidivism in Nigeria. *Journal of Crime and Social Studies,* 8(4), 312-324.

Soyombo, O. (2019). Peer influence and recidivism: The case of Nigerian ex-prisoners. *Journal of Crime and Social Studies,* 8(4), 312-324.

Soyombo, O. (2019). Peer influence and recidivism: The case of Nigerian ex-prisoners. *Journal of Crime and Social Studies,* 8(4), 312-324.

Ugwuoke, F. (2010). The economic challenges of ex-convicts and recidivism in

Nigeria. *African Journal of Criminology,* 6(3), 220-235.

Ugwuoke, F. (2010). The economic challenges of ex-convicts and recidivism in Nigeria. *African Journal of Criminology,* 6(3), 220-235.

Ugwuoke, F. (2017). Economic hardships of ex-convicts and their impact on recidivism in Nigeria. *African Journal of Criminology and Justice Studies,* 8(4), 150-165.

Ugwuoke, F. (2017). Unemployment, financial strain, and recidivism: A socio-economic analysis of post-release challenges in Nigeria. *African Journal of Criminology,* 9(4), 155-168.