



Research Article

Assessment of Mental Health Challenges and Access to Care Among Elderly Persons in Calabar, Nigeria: A Cross-Sectional Study

Emeagha, Clare Uchenna, MPH^{1*} and Urama, Sabina Ifeoma², Uwakwe, Rosemary Kelechi³ and Okafor, Chiamaka Patience⁴

¹Department of Restorative Dentistry, University of Calabar Teaching Hospital, Calabar, Cross River State, Nigeria

²Department of Clinical Mental Health Counseling, Southern University and A&M College, Louisiana, USA

³M.Sc in Progress in Biomechanics, Ebonyi State University, Nigeria

⁴Dental Technologist, Abia State Specialist Hospital and Diagnostic Centre, Umuahia, Abia State, Nigeria

Abstract: Elderly Nigerians face high rates of mental health conditions which the healthcare system fails to diagnose because it lacks sufficient resources to operate effectively. The study examined 384 elderly participants who lived in Calabar, Cross River State, Nigeria, to determine their mental health problems and their ability to obtain mental health treatment. The researchers used a multi-stage sampling method to recruit study participants. The Geriatric Depression Scale-15 (GDS-15) was used to assess depression and the General Anxiety Disorder-7 (GAD-7) to evaluate anxiety. The results showed that 38.5% of respondents experienced depression while 24.7% experienced anxiety. Only 21.4% of people studied had ever visited a mental health professional. The research identified financial difficulties as the main barrier, which affected 73.2% of participants, while 61.8% faced stigma and 54.3% encountered problems with accessing distant locations. The study found that female sex and widowhood status, together with low educational attainment and lack of social support, constitute major factors which lead to depression. The study results demonstrate that health services in Nigeria need urgent implementation of mental health services for elderly people through primary healthcare systems and community programmes, which should include educational initiatives to combat stigma in Calabar and all Nigerian communities.

Keywords: Mental health, elderly, older adults, Nigeria, depression, anxiety, access to care, Calabar, cross-sectional study

1. Introduction

The global population is experiencing an unprecedented increase in its aging process. The World Health Organization (WHO) projects that by 2030, one in six people worldwide will be aged 60 years or older, with sub-Saharan Africa among the regions experiencing the sharpest proportional increases (WHO, 2023). Nigeria's population, which exceeds 220 million, includes 9.4 million people who are 60 years old and above in 2020, and this number is projected to reach 24 million by 2050 (National Bureau of Statistics [NBS], 2021; Okoro et al., 2022). The mental health condition of senior Nigerians requires urgent attention as population growth creates a new public health emergency.

Mental health disorders in later years present serious medical problems which healthcare professionals often fail to address. The WHO estimates that approximately 15% of adults aged 60 and above suffer from a mental disorder, with depression and anxiety constituting the most prevalent conditions worldwide (WHO, 2023). The Ibadan Study of Ageing (ISA) documented that 26.2% of

people surveyed experienced major depressive disorder (MDD) throughout their lifetime, while 7.1% of older adults living in communities displayed MDD within the last 12 months (Gureje et al., 2011). More recent studies have reported even higher estimates, ranging from 12.1% to 38%, based on population characteristics and measurement tools (Faronbi et al., 2024; Amoo et al., 2020).

Mental health services in Nigeria face persistent challenges that prevent people from obtaining necessary treatment. The number of psychiatrists in Nigeria reaches approximately 250, serving a population that exceeds 220 million, creating a psychiatrist-to-population ratio of between 800,000 and 1,000,000 per psychiatrist (Fadele et al., 2024). Only seven tertiary centres across the country provide psychogeriatric subspecialty services for elderly patients with mental health conditions (Gureje et al., 2020). The ability of elderly Nigerians to seek medical treatment is obstructed by financial difficulties, societal stigma, limited mental

health literacy, and the weakening of traditional family support systems (Igbokwe et al., 2020; Ikeorji et al., 2024). Calabar, the capital of Cross River State in south-eastern Nigeria, shows an increasing elderly population alongside primary healthcare deficiencies that affect mental health service delivery. No prior local studies have examined the mental health situation and care access patterns of senior citizens living in Calabar, representing a significant research gap.

The study aimed to: (i) determine the prevalence of depression and anxiety disorders among the elderly population in Calabar; (ii) measure formal mental health service utilisation among this group; (iii) identify the major barriers preventing access to mental health treatment; and (iv) identify sociodemographic factors that serve as depression risk indicators.

2. Materials And Methods

Study design and setting

A cross-sectional study was conducted in three urban communities — Anantigha, Edim Otop, and Atimbo — between January and April 2025. These communities were selected because they contained large numbers of elderly residents reflecting the geographical distribution of Calabar's urban areas.

Study population and sample size

The target population comprised residents aged 60 years or older who had lived in the selected communities for a minimum of six months and were able to provide informed consent. Persons with severe cognitive impairment that prevented participation, those experiencing acute severe physical illness at the time of the study, and those who refused consent were excluded. Sample size was determined using Cochran's formula for estimating population proportions: $n = Z^2pq/d^2$, with $Z = 1.96$ (95% confidence level), $p = 0.262$ (based on Gureje et al., 2011 depression prevalence estimate), $q = 0.738$, and $d = 0.05$, yielding a minimum required sample size of 299. After applying a 20% non-response adjustment, the minimum sample size reached 359. A total of 390 questionnaires were distributed and 384 completed questionnaires were returned, producing a response rate of 98.5%.

Sampling technique

Multi-stage sampling was employed. In Stage 1, three communities from Calabar Municipality and Calabar South LGAs were selected by purposive sampling. In Stage 2, community health records were used to estimate the elderly population in each community, which then used proportional allocation to determine the number of participants per community. In Stage 3, systematic random sampling was used to select households from community household registers. One eligible elderly

resident was selected from each household; where multiple eligible residents resided in one household, simple balloting was used.

Instruments

A structured interviewer-administered questionnaire comprising four sections was used. Section A captured sociodemographic characteristics. Section B comprised the Geriatric Depression Scale–15 (GDS-15), a validated tool for screening depression in older adults, with a cut-off score of ≥ 5 indicating probable depression (Sheikh and Yesavage, 1986). Section C used the Generalised Anxiety Disorder-7 (GAD-7) scale, with a cut-off score of ≥ 10 indicating moderate-to-severe anxiety. Section D was a researcher-developed 18-item module measuring access to healthcare services, which was reviewed by three public health experts and three mental health specialists and pilot-tested with 30 participants outside the primary research areas. The questionnaire was translated into Efik and Pidgin English and back-translated to confirm semantic equivalence.

Data analysis

Data were analysed using IBM SPSS Statistics version 26.0. Descriptive statistics were used to calculate frequencies, percentages, means, and standard deviations. Chi-square tests were used to examine associations between categorical variables. Binary logistic regression was used to determine independent predictors of depression based on GDS-15 scores, with results reported as adjusted odds ratios (AOR) with 95% confidence intervals (CI). Statistical significance was set at $p < 0.05$.

Ethical considerations

Ethical approval was granted by the Health Research Ethics Committee of the University of Calabar Teaching Hospital (UCTH/HREC/2024/087). Written informed consent was obtained from all participants prior to data collection. Data confidentiality was maintained through anonymised coded identifiers. Respondents identified with probable depression were provided written referral notes to access treatment at the nearest primary health facility.

3. Results

Sociodemographic characteristics of respondents

The mean age of the 384 participants was 68.4 ± 7.2 years (range: 60–91 years). The majority were female (57.6%), widowed (44.3%), Christian (78.4%), and retired (61.5%). Approximately half (49.2%) had attained primary level education or below, and 56.5% earned less than ₦30,000 per month. Full sociodemographic characteristics are presented in Table 1.

Table 1. Sociodemographic characteristics of respondents (N = 384)

Variable	Frequency (n)	Percentage (%)
----------	---------------	----------------

Variable	Frequency (n)	Percentage (%)
Age group (years)		
60–69	201	52.3
70–79	124	32.3
≥80	59	15.4
Sex		
Male	163	42.4
Female	221	57.6
Marital status		
Married	163	42.4
Widowed	170	44.3
Single/Divorced/Separated	51	13.3
Educational attainment		
No formal education	65	16.9
Primary education	124	32.3
Secondary education	119	31.0
Tertiary education	76	19.8
Employment status		
Retired	236	61.5
Self-employed/still working	97	25.3
Unemployed/never employed	51	13.3
Monthly income		
< ₦30,000	217	56.5
₦30,000–₦60,000	102	26.6
> ₦60,000	65	16.9

Prevalence of mental health disorders

Using the GDS-15, 148 respondents (38.5%) were identified as having probable depression (score ≥ 5), of whom 63 (42.6%) scored in the severe range (score ≥ 11). The GAD-7 identified 95 respondents (24.7%) with moderate-to-severe anxiety (score ≥ 10). Comorbid depression and anxiety were present in 67 respondents (17.4%). Depression was significantly more prevalent among females (44.3% vs. 30.7%; $\chi^2 = 8.41$, $p = 0.004$), widowed respondents (48.2% vs. 31.3% married; $\chi^2 = 10.62$, $p = 0.001$), those with no formal education (55.4%; $\chi^2 = 14.37$, $p < 0.001$), and those earning below ₦30,000 per month (47.5%; $\chi^2 = 12.88$, $p = 0.002$). These findings are presented in Table 2.

Table 2. Prevalence of depression by selected sociodemographic characteristics

Variable	Depressed n (%)	Not Depressed n (%)	χ^2 value	p-value
Sex				
Male	50 (30.7)	113 (69.3)	8.41	0.004*
Female	98 (44.3)	123 (55.7)		
Marital status				
Married	51 (31.3)	112 (68.7)	10.62	0.001*

Variable	Depressed n (%)	Not Depressed n (%)	χ^2 value	p-value
Widowed	82 (48.2)	88 (51.8)		
Educational attainment				
No formal education	36 (55.4)	29 (44.6)	14.37	<0.001*
Primary	52 (41.9)	72 (58.1)		
Secondary	42 (35.3)	77 (64.7)		
Tertiary	18 (23.7)	58 (76.3)		
Monthly income				
< ₦30,000	103 (47.5)	114 (52.5)	12.88	0.002*
₦30,000–₦60,000	34 (33.3)	68 (66.7)		
> ₦60,000	11 (16.9)	54 (83.1)		

*Statistically significant at $p < 0.05$

Access to mental health care

Among all 384 respondents, only 82 (21.4%) had ever accessed formal mental health care. Among the 148 respondents with probable depression, only 34 (23.0%) had received any professional mental health care. The most frequently reported primary sources of care were private general practice clinics (41.5%), federal or state neuropsychiatric hospitals (29.3%), and primary health centres (17.1%). Faith-based and traditional healing pathways were utilised as the primary response to mental health symptoms by 36.7% and 16.1% of all respondents respectively. Patterns of care access are presented in Table 3.

Table 3. Pattern of mental health care access among respondents (N = 384)

Variable	Frequency n (%)
Ever accessed formal mental health care	82 (21.4)
Never accessed formal mental health care	302 (78.6)
Primary source of help-seeking (all respondents)	
Faith-based/prayer	141 (36.7)
No help sought	133 (34.6)
Traditional healer	62 (16.1)
General practice clinic	34 (8.9)
Primary health centre	14 (3.6)

Barriers to mental health care access

The most frequently cited barrier was financial constraint (73.2%), followed by stigma and shame (61.8%), geographical distance to specialist facilities (54.3%), lack of awareness of available services (48.7%), belief that mental illness has a spiritual cause (42.4%), preference for traditional or religious healing (38.5%), fear of discrimination (31.3%), and no perceived need for care (25.3%). Barriers are detailed in Table 4.

Table 4. Barriers to mental health care access reported by respondents (N = 384)

Barrier	Frequency (n)	Percentage (%)
Financial constraints	281	73.2
Stigma and shame	237	61.8

Barrier	Frequency (n)	Percentage (%)
Geographical inaccessibility	209	54.3
Lack of awareness of services	187	48.7
Belief in spiritual causation	163	42.4
Preference for traditional/religious healing	148	38.5
Fear of discrimination	120	31.3
No perceived need for care	97	25.3

Predictors of depression: logistic regression analysis

After adjusting for all covariates, binary logistic regression identified female sex (AOR = 2.14; 95% CI: 1.38–3.31; $p = 0.001$), widowhood (AOR = 1.89; 95% CI: 1.21–2.96; $p = 0.005$), low educational attainment (AOR = 1.76; 95% CI: 1.13–2.74; $p = 0.012$), absence of social support (AOR = 2.43; 95% CI: 1.57–3.76; $p < 0.001$), and monthly income below ₦30,000 (AOR = 1.64; 95% CI: 1.05–2.56; $p = 0.029$) as significant independent predictors of depression. Advanced age (≥ 80 years) showed a positive but non-significant association (AOR = 1.31; 95% CI: 0.79–2.17; $p = 0.291$). Results are presented in Table 5.

Table 5. Binary logistic regression — independent predictors of depression (N = 384)

Variable	COR (95% CI)	p-value	AOR (95% CI)	p-value
Female sex	1.78 (1.18–2.69)	0.006	2.14 (1.38–3.31)	0.001*
Widowhood	1.61 (1.05–2.46)	0.028	1.89 (1.21–2.96)	0.005*
Low educational attainment	1.54 (1.01–2.35)	0.045	1.76 (1.13–2.74)	0.012*
Absence of social support	2.09 (1.37–3.18)	0.001	2.43 (1.57–3.76)	<0.001*
Income < ₦30,000/month	1.47 (0.96–2.24)	0.073	1.64 (1.05–2.56)	0.029*
Age ≥ 80 years	1.22 (0.74–2.01)	0.432	1.31 (0.79–2.17)	0.291

*COR = Crude Odds Ratio; AOR = Adjusted Odds Ratio; CI = Confidence Interval; * $p < 0.05$*

4. Discussion

This study evaluated mental health disorder rates and treatment accessibility among 384 elderly individuals in Calabar, Nigeria. A depression prevalence of 38.5% was found, which is higher than the ISA lifetime estimate of 26.2% (Gureje et al., 2011) and the 12.1% reported by Faronbi et al. (2024). The higher estimate in this study reflects differences in study instruments, sampling methods, and the demographic composition of the study group; the GDS-15 screens for probable depression including sub-threshold symptoms, capturing the social and economic difficulties that characterise this specific population. The 24.7% anxiety prevalence suggests that retirement, bereavement, financial hardship, and social isolation

collectively drive the mental health burden among urban elderly residents in Calabar.

The predictors of depression identified — female sex, widowhood, low educational attainment, absence of social support, and low income — are consistent with established global and Nigerian literature (WHO, 2023; Igbokwe et al., 2020; Faronbi et al., 2024). The absence of social support carried the strongest association with depression (AOR = 2.43), confirming that social bonds protect against mental health deterioration in late life. This finding has direct implications for intervention design: community social support systems, befriending programmes, and peer support networks represent affordable and scalable strategies for reducing depression among socially isolated elderly persons.

The finding that only 21.4% of respondents had ever accessed formal mental health care represents an approximately 79% treatment gap, consistent with existing national data (Fadele et al., 2024). The National Mental Health Act 2021 has not yet produced significant community-level benefits because structural reforms remain unimplemented at the local level. Financial constraints emerged as the primary barrier (73.2%), reflecting the fact that mental health services remain largely uncovered by existing health insurance frameworks, underscoring the need for targeted social protection for elderly Nigerians. The dual barriers of stigma (61.8%) and geographical inaccessibility (54.3%) require simultaneous investment in anti-stigma education and establishment of community-level treatment facilities. The prominence of faith-based (36.7%) and traditional healing (16.1%) pathways reflects both cultural preferences and structural barriers. Cross River State should pilot collaborative models engaging faith-based organisations and traditional community leaders in mental health referral networks, as has been demonstrated in other sub-Saharan African countries. The WHO mhGAP framework provides a validated, resource-appropriate system enabling non-specialist health workers to detect and manage depression in primary care settings, and its implementation in Calabar's urban primary health system is urgently warranted.

5. Conclusion

Depression and anxiety disorders are highly prevalent among elderly persons in Calabar, Nigeria, while access to formal mental health care remains critically and disproportionately low. The primary obstacles to care include financial constraints, stigma, geographical inaccessibility, and low mental health literacy. The independent predictors of depression in this population are female sex, widowhood, low educational attainment, absence of social support, and low income. Urgent action is required across multiple levels: integration of routine geriatric mental health screening using validated tools such as the GDS-15 into primary healthcare; training of community health workers in basic mental health management through mhGAP protocols; targeted social protection for economically vulnerable elderly Nigerians; engagement of faith and community leaders in anti-stigma campaigns; and sustained investment in community-based mental health services. The findings should guide health planning at the Cross River State Ministry of Health and contribute evidence toward a national mental health strategy for geriatric care.

6. Acknowledgements

The authors are grateful to the community health workers and local government health officers of Calabar Municipality and Calabar South LGAs for facilitating community access, and to all participants who gave their time and candid responses.

Conflict Of Interest

The authors declare no conflict of interest.

References

- Abdulmalik, J., Olayiwola, S., Docrat, S., Lund, C., Chisholm, D., & Gureje, O. (2019). Sustainable financing mechanisms for strengthening mental health systems in Nigeria. *International Journal of Mental Health Systems*, 13(1), 1–15.
- Amoo, G., Ogundele, A. T., Olajide, A. O., Ighoroje, M. G., Oluwaranti, A. O., Onunka, G. C., Ladeinde, A. A., & Folaji, O. G. (2020). Prevalence and pattern of psychiatric morbidity among community-dwelling elderly populations in Abeokuta, Nigeria. *Journal of Geriatric Psychiatry and Neurology*, 33(6), 345–355.
- Fadele, K. P., Igwe, S. C., Toluwalogo, N. O., Udokang, E. I., Ogaya, J. B., & Lucero-Prisno, D. E. (2024). Mental health challenges in Nigeria: Bridging the gap between demand and resources. *Global Mental Health*, 11, e29.
- Faronbi, J. O., Ojewale, M. O., Faronbi, G. O., & Oladapo, O. M. (2024). Influence of physical activity on loneliness and depression among the older adults in Nigeria. *Scientific Reports*, 14, 26697.
- Gureje, O., Oladeji, B., Abiona, T., Chatterji, S., & Kowal, P. (2011). Profile and correlates of non-affective psychosis in the Ibadan Study of Ageing. *Epidemiology and Psychiatric Sciences*, 20(3), 241–249.
- Gureje, O., Adeyemi, J. D., Ogbo, F., Nortje, G., & Abdulmalik, J. (2020). Burden of COVID-19 on mental health of older adults in a fragile healthcare system: The case of Nigeria. *International Psychogeriatrics*, 32(10), 1181–1187.
- Igbokwe, C. C., Ejeh, V. J., Agbaje, O. S., Umoke, P. I. C., Iweama, C. N., & Ozoemena, E. L. (2020). Prevalence of loneliness and association with depressive and anxiety symptoms among retirees in Northcentral Nigeria: A cross-sectional study. *BMC Geriatrics*, 20, 150.
- Ikeorji, C., Lawal, U., Zubairu, Z., Anzaku, E., Pelser, A., & Tanyi, L. P. (2024). Mental health challenges of older adults in Nigeria: The COVID-19 experience. *Current Psychology*. <https://doi.org/10.1007/s12144-024-06843-3>
- National Bureau of Statistics. (2021). *Elderly population aged 60 years and older in Nigeria from 2018 to 2020*. Federal Government of Nigeria.
- Okoro, F., Oladejo, B., & Leka, S. (2022). Aging in Nigeria: A growing population of older adults requires the implementation of national aging policies. *The Gerontologist*, 62(9), 1273–1281.
- Sheikh, J. I., & Yesavage, J. A. (1986). Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist*, 5(1–2), 165–173.
- World Health Organization. (2023). *Mental health of older adults*. World Health Organization

Abbreviations:

GDS-15 - Geriatric Depression Scale- 15

GAD-7- Generalised Anxiety Disorder-7

UCTH - University of Calabar Teaching Hospital

LGA - Local Government Area

AOR- Adjusted Odds Ratio

CI- Confidence Interval

WHO - World Health Organization

mhGAP- Mental Health Gap Action Programme

NBS- National Bureau of Statistics

SPSS - Statistical Package for Social Sciences