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Full Length Research Article

PREVALENCE OF DEPRESSION AMONG INTERNALLY DISPLACED PERSONS IN ABUJA, NIGERIA

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ABSTRACT
Disasters displace millions of people globally, leading to internal displacement. Nigeria also faces challenges such as banditry, kidnapping, terrorism, and natural disasters. Internal displacement has numerous negative consequences, including mental disorders and psychological distress. This study assessed the prevalence and associated factors of depression among IDPs in Abuja, Nigeria. A cross-sectional study was conducted in two internally displaced persons` camps in Abuja in October 2023 using mixed methods. A total of 382 respondents were selected for the quantitative study using systematic sampling, while participants for the focus group discussions (FGD) were purposively selected. The data collection tools included an interviewer-administered questionnaire and an FGD guide. Psychological distress and coping mechanisms were assessed using validated tools such as the Kessler Psychological Distress Scale (K10) and the Brief COPE-28. Data were analyzed using SPSS, with multivariate analyses conducted to explore associations between trauma and mental health outcomes. This study revealed moderate distress in 42% of respondents, while 30.9% experienced severe depression. Common traumatic experiences included lack of food, insecurity, witnessing violence, and family separation. A significant correlation was observed between psychological distress and trauma (β=0.45, p<0.001). The adaptive coping strategies were however, inversely related to distress (β=-0.20, p=0.022). Unemployment and self-employment were also positively associated with psychological distress. Qualitative findings highlighted severe emotional distress and trauma among participants, including persistent intrusive memories and social detachment. The study revealed a high prevalence of extremely severe depression and emotional distress among the IDP. There is an urgent need for targeted mental health interventions in the IDP settings, through coordinated efforts from governments, humanitarian agencies, and mental health practitioners.

Keywords: Depression, Prevalence, Internally Displaced Persons, Abuja, Nigeria.

INTRODUCTION

Natural and man-made disasters displace millions of people globally each year. Many displaced individuals are forced into temporary, overcrowded camps, where they become victims of additional violence, mental distress, and disease. A fortunate few find refuge with family and friends (GRID, 2017). Violence and conflict have displaced approximately around 33.3 million individuals, representing a significant portion of the global Internally Displaced Persons (IDP) population. (Faronbi et al., 2020).
AS of the end of 2023, approximately 75.9 million people were internally displaced globally (UNHCR, 2023). A report by (IOM 2023) revealed a total of 1,190,293 internally displaced people in 191,688 households across the 8 states in the Northcentral and Northwest regions in Nigeria due to violence (IOM, 2023). More than 1.5 million displaced people are accommodated in congested camps throughout the conflict-affected Northern regions, most of which were empty government and school buildings with inadequate utilities and poor living conditions (UNHCR MARCH Factsheet, 2021). Similarly, they are vulnerable to sexual violence (Owoaje et al., 2016; Akuto, 2017).

The lack of a legally recognized status within the IDP definition creates uncertainty regarding the conditions that terminate the status of internally displaced persons (Mooney, 2013). The absence of a political solution, weak stakeholder initiatives, and inadequate organizational response prolong displacement, harming mental and physical health while sustaining conflict (Porter & Halsam, 2019).
It is believed that a combination of genetic, physiological, environmental, and psychological factors causes depression. According to Morton and Burnham (2018), Internal displacement poses intricate and critical public mental health challenges. The global impact of internal displacement extends to social, economic, and physical domains, necessitating urgent attention. Depression affects people worldwide in all societies and contributes significantly to the global burden of disease (WFMH, 2012). The prolonged post-displacement phase, coupled with ongoing adversity, increases the risk of mental disorders among IDPs. Factors such as stigma associated with the 'IDP label', inadequate healthcare, financial constraints, lack of education, disrupted social networks, co-existing physical health issues, pre-existing psychopathology, displacement trauma, and a diminished sense of hope for the future contribute to this heightened risk.

Depression has become a major public health problem, with its prevalence steadily increasing (Milanovic et al., 2015). According to WHO, 322 million people worldwide suffer from depression (WHO, 2017). It is more common among females (5.1%) than males (3.6%). Prevalence varies by WHO region, from a low of 2.6% among males in the Western Pacific region to 5.9% among females in the African region (WHO Africa 2023).
The study will help us gain a better understanding of the unique challenges and experiences that displaced persons face. This knowledge can inform strategies for building resilience and promoting mental health in other vulnerable populations facing similar challenges. Generally, it could serve as a resource for those working in mental health, media, institutions, and aspiring researchers. This study assessed the prevalence of depression among IDPs in Abuja, Nigeria.

METHODOLOGY

Abuja, Nigeria`s capital, is situated in the Federal Capital Territory

(FCT). It lies at approximately 9.0765° N latitude and 7.3986° E longitude. As of 2023, the population of Abuja is estimated at 3.8 million people (National Population Agency 2023). The city has experienced rapid growth due to urbanization, infrastructure development, and its status as the political and administrative center of Nigeria**.**

The study was a cross-sectional descriptive survey conducted in October 2023, targeting internally displaced adults currently residing in displacement camps within the FCT-Abuja. Four IDP camps were located in Abuja – Lugbe, Area 1 (Durumi), New Kuchingoro and Kuje. Data from the Office for Humanitarian Affairs in FCT-Abuja reported 9,232 adults living in IDP camps and host communities.

All consenting adults in the IDP camps who are 18 years or older and have lived in the camp for at least 6 months were included. Those who had lived there for less than six months or had emotional disorders were excluded.

The sample size was estimated using Yamane's formula (1976) as follows:

$n= N/(1+N(e)^2$

Where: n= minimal sample size, N= Population size (9,232) and e= Margin of error (0.05).

Therefore, the minimal sample size was approximately 382.

Simple random sampling via balloting was used to select two camps out of the four camps. The full list of people living in the 2 camps was collected from the camp director, from which the sampling frame was created. The total number of adults in the 2 camps was divided by 382 to obtain a sampling interval of 2.0 (780/382) that was used to select the legible study participants.

Data collection and tools

Data collection employed mixed methods including questionnaire, focus group discussion guide and participant/observation to assess contextual challenges.

The questionnaire was pretested and validated using 10% of the sample size before administering it to the study population. The semi-structured questionnaire was interviewer- administered. The main sections of the questionnaire covered the respondents' socio-demographic characteristics, awareness of the impact of armed conflicts on mental health and the availability of psychosocial services.

There were 3 subsections: the first assessed traumatic experiences, the second evaluated psychological distress, and the third explored coping mechanisms. The psychological distress, traumatic events, and coping methods were measured by the Kessler Psychological Distress Scale (K10), the Posttraumatic Stress Disorder Checklist (PCL-5), and the Brief Cope-28 respectively. The respondents' degree of psychological discomfort was gauged using the ten questions on the K-10 scale.

Four trained research assistants (two males and two females) were used. The criteria for their selection included being having a college degree, fluency in Hausa and English, and familiarity with the region. They were trained for 5 days on research objectives, quantitative and qualitative data and research integrity.

Data Analysis

Quantitative component: The collected data were cleaned before being transferred into the Statistical Package for Social Sciences (SPSS) version 26 for analysis. The p-value for statistical significance was set at <0.05.

Psychological distress level cutoff scores, according to Kessler (2002), are 10 to 15 points for "low distress," 16 to 21 points for "moderate," 22 to 29 points for "high," and 30 to 50 points for "very high." Univariate analysis was conducted to examine the frequencies of various background characteristics. This study employed multivariate correlation analysis to examine how armed conflict experiences and demographic variables impact the mental well-being of displaced individuals.

Qualitative Component: The qualitative data were analysed using thematic analysis through the following processes:

1. Data Management: A professional transcriber converted field notes from FGDs into transcripts.
2. Preliminary Coding: A team of four researchers reviewed the transcripts, took notes, and developed initial codes.
3. Theme Identification: The researcher and assistants identified themes based on emerging patterns in the data.
4. Hierarchy Development: The research team categorized themes and subthemes, linking them to relevant psychological and sociological theories.
5. Report Writing: Finally, the findings were synthesized into a comprehensive report.

Ethical Consideration

The study was approved by the Ethics Committee of the Ministry of Humanitarian Affairs and Poverty Alleviation, FCT, Abuja, Nigeria (FHREC/2023/01/84/25-05-23). Permission was obtained from the local government authorities and the camp heads. Written informed consent were obtained from the study participants after explaining the study`s objectives and procedures in a language they understood. They were assured of confidentiality and anonymity were also informed that the information obtained would be used solely for research purposes. They were further informed of their right to withdraw from the study at any stage without consequences.

RESULTS

A total of 382 interviewer-administered and questionnaires were completed and analyzed yielding a100% response rate. The age range of the respondents was 18 to 65 years, with a mean age of 30. 3 ± 10.1 years.

Quantitative component:

More than half of the respondents were women (55.8%) and within the age bracket of 18 to 25 years (55.2%). About 1/3 were married and engaged in farming (Table 1). The respondents experienced lack of food/ water (74.1%), lack of access to medical care (74.3%), separation from family members (62%) and sexual abuse (32.7%), among others (Table 2). Approximately 42% of the respondents had moderate distress and 31% had high distress using the Kessler classification of psychological distress (Table 3). Most of the respondents (30.1%) had extremely severe depression with the score of ≥ 28 points (Table 4). One-fourth of the respondents have a stress score of moderate magnitude and 10.7% with extremely severe magnitude (Table 5). Table 6 presents the association between trauma and psychological distress at different levels of statistical significance.

Qualitative component:

During the focus group discussions, the researchers observed that 4 out of the 10 participants were emotionally distressed. About half have directly witnessed human being slain, burnt and many have suffered the horrible loss of loved ones.

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The researchers encountered a few women who had mental health problems. During the visits, these women were seen wandering through the camps and unresponsive to attempts at conversation. The researcher discovered that all of the family members had died in the ethnic violence and that these ladies were the only survivors in their families after speaking with the locals. One of the mothers continuously recited the names of her children who had been killed in the attacks.

When respondents were asked about their traumatic experiences and symptoms, it became evident that they had a high degree of reported trauma. Some distressing events were notably frequent. For instance, participants commonly reported experiences such as repeated disturbing dreams related to stressful events, heightened alertness or vigilance, feelings of detachment from others and unwelcome memories of the traumatic experience

Table 1: Socio-demographic characteristics of respondents (n= 382)

Variables		Frequency	Percent
Sex	Male	165	43.2
	Female	217	56.8
Age (in years)	18-24	211	55.2
	25-34	83	21.7
	≥35	88	23.1
Marital status	Single	100	26.2
	Married	126	33.0
	Separated	92	24.0
	Cohabiting (Single)	64	16.8
Educational status	No Formal Education	74	19.4
	Islamic Education (Religious)	87	22.8
	Primary Education	110	28.8
	Secondary Education	66	17.3
	Tertiary Education	45	11.7
Occupation	Civil Servants	52	13.6
	Small Business Owners	69	18.1
	Casual Laborers	54	14.1
	Farmers	118	30.9
	Artisans	89	23.3

Table 2: Exposure to Traumatic Events Among Displaced Persons (n=382)

Variables	Responses n (%)	
	Experienced	Not Experienced
Forced into hiding due to violence or threats	237 (62.1)	145 (37.9)
Witnessed a combat situation or armed conflict	241 (63.1)	141 (36.9)
Lack of food or water	283 (74.1)	99 (25.9)
Disappearance of family member or friend	203 (53.1)	179 (46.9)
Family member or friend killed due to violence	172 (45.0)	210 (55.0)
Forced separation from family members	237 (62.0)	145 (38.0)
Forced evacuation under dangerous condition	173 (45.3)	209 (54.7)
Witness torture	244 (63.9)	138 (36.1)
Witness killing/murder	185 (48.4)	197 (51.6)
Forced to betray family member, or friend placing them at risk of death or injury	136 (35.6)	246 (64.4)
Kidnapped	101 (26.4)	281 (73.6)
Sick but without access to medical care	284 (74.3)	98 (25.7)
Witness rape or other sexual abuse	125 (32.7)	257 (67.3)

Table 3: Based on Kessler Psychological Distress Scale The prevalence of psychological distress (n=382)

Variables	Frequency	Percent
Low distress	49	12.8
Moderate distress	160	41.9
High distress	118	30.9
Very High Distress	55	14.4
Total number of respondents	382	100%

Table 4: Depression Score of Respondents (n=382)

Score Range	Distress Level	Frequency	Percent
0-9 points	Normal	62	16.2
10-13 points	Mild	28	7.3
14-20 points	Moderate	55	14.4
21-27 points	Severe	119	31.2
≥28 [max score: 50] points	Extremely severe	118	30.9
Total number of Respondents		382	100%

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Table 5: Stress Score of Respondents (n=382)

Score Range	Distress Level	Frequency	Percentage
0-14	Normal	87	22.8
15-18	Mild	68	17.8
19-25	Moderate	96	25.1
26-33	Severe	90	23.6
34 and above	Extremely severe	41	10.7
Total number of Respondents		382	100%

Table 6: Association between trauma and psychological distress

Independent variables		Dependent variable Distress (k10 total score) (n=382)		
			β coefficient (95% Confidence Interval), P value	
Primary independent			Crude	Adjusted
		Trauma (PCL -5 total score)	0.42 (0.35, 0.48) P<0.001 **	0.45 (0.37, 0.53) p<0.001**
Confounding variables (Variables that potentially can have a link with both psychological distress and trauma)	Sex	Female	0.44 (-1.38, 2.25) p=0.637	-1.71(-3.18-0.25) p=0.022
		Male	0.32 (-8.28, 8.91) p=0.942	-2.34 (-8.16, 3.48) p=0.429
	Age	18-25 (reference)	1	1
		26-35	2.53 (0.26, 4.79), p=0.029	272.(0.74,4.71) P=0.007
		36 - 45	-2.09 (-4.34, 0.16) p=0.069	1.56 (-0.58, 3.70) p=0.153
		46 years and above	4.23 (1.53, 6.94) p=0.002	6.55(4.01, 9.10) p<0.001**
	Marital status	Married (reference)	1	1
		Single (Cohabiting)	0.32 (-8.28, 8.91) p=0.942	-2.34 (-8.16, 3.48) p=0.429
		Separated	1.32 (-2.79, 5.43) p=0.529	-0.88 (-3.72, 1.97) p=0.544
	Educational status	Non-literate (No Formal Education)	1	1
		Literate (primary, Secondary, tertiary, Islamic Educations)	-9.64(-11.71, -7.56) p<0.001**	0.64 (-2.34, 3.63) p=0.670
	Employment status	Employed (government and private)	1	1
		Self-employed (Small business owners, Artisans, etc)	5.82(3.28,8.36) p<0.001**	0.03 (-3.51, 3.56) p=0.989
		Unemployed (had nothing doing for a living)	6.82 (4.87, 8.77) p<0.001**	3.54 (0.94, 6.15) p=0.008*
	Coping (total score)	Adaptive coping	-0.23 (-0.44, -0.03) p=0.027*	-0.20(-0.37, -0.03) p=0.022*
		Maladaptive coping	-0.17 (-0.38, 0.04) p=0.107	-0.03 (-0.21, 0.15) p=0.755

**Significant at 0.001 * significant at 0.05

DISCUSSION

The study showed that depression and psychological distress were prevalent among internally displaced persons in the study area. It also demonstrated a clear link between psychological distress and traumatic events.

In Africa, approximately 29.2 million people (9% of 322 million) suffer from depression, including over 7 million in Nigeria (3.9% of 322 million) (Esan and Esan, 2016). Estimates place the lifetime prevalence of depressive disorders between 3.3% and 9.8% (Esan and Esan, 2016). A study on the prevalence of depression and post-traumatic stress disorder among internally displaced persons in Maiduguri, Nigeria, found that 96.1% (1,153) of respondents were depressed, while 78% (936) were symptomatic of PTSD (Aluh, Okoro and Zimboh (2020). A study on Socio-demographic correlates and associated factors of depression and anxiety among internally displaced adults in Ogoja, Nigeria (Ugbe et al., 2022) revealed that of 335 respondents, 73.4% were depressed and 66% had anxiety disorder. A study on Mental health literacy, prevalence of depression and PTSD among internally displaced persons in Northern Nigeria found that 54.6% of 637 respondents had depression, while 19.9% had PTSD (Jour and Olufadewa, 2023).

The prevalence of mental health conditions, including depression and post-traumatic stress disorder (PTSD), tends to be higher among IDPs compared to host populations. These similarities across geographical locations are attributed to common stressors faced by IDPs. These include pre-migration stressors, travel and transit difficulties, post-migration stressors, unemployment and socioeconomic conditions, lack of social integration and pre-existing vulnerability. Public health efforts should focus on addressing mental health needs, social integration and well-being, and overcoming barriers to mental health services during displacement and settlement.

The study employed both crude and adjusted models for analysis. Crude refers to the bivariate coefficient between the independent and dependent variables, while adjusted measures the coefficient after other model variables have been held constant. Traumatic experiences were significantly associated with psychological distress in both the fully adjusted model β=0.45 CI (0.37, 0.53, p<0.001) and the crude model (β=0.42 CI (0.35, 0.48, P<0.001). Both the crude and adjusted models showed a substantial correlation between psychological distress and trauma, meaning that a unit change in the independent variable (trauma) causes a 0.45-times change in the dependent variable (psychological distress). Additional factors, such as literacy and the age group 46 years and over (β=6.55(4.01, 9.10)), were shown to be positively correlated with psychological distress. Additionally, in the crude model, there was a substantial and positive correlation between unemployment and self-employment with distress in β = 6.82 CI (4.87, 8.77) p<0.001 and β = 5.82 CI (3.28, 8.36) p<0.001, respectively. Furthermore, a negative and significant correlation was established between the adaptive component of coping strategy (β=-0.20 CI (- 0.37, -0.03), p=0.022) and psychological discomfort.

This study relied on self-reported data, which may have been biased due to social desirability and recall issues. The cross-sectional design limits the ability to infer causality between trauma, coping mechanisms, and mental health outcomes. Participants may have underreported or exaggerated their experiences and psychological symptoms due to stigma, fear of judgment, or misunderstanding of the survey questions. In addition, the use of the Kessler Psychological Distress Scale (K10) and other standardized tools may not fully capture the culturally specific expressions of distress and coping mechanisms among internally displaced persons (IDPs) in Nigeria. The tools, while validated, may not entirely reflect the nuances of mental health challenges in this population.

Conclusion

The study showed the prevalence of extremely severe depression and emotional distress among the IDPs. There is an urgent need for targeted mental health interventions in the IDP settings, through coordinated efforts from governments, humanitarian agencies, and mental health practitioners, among others.

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Conflict of interest:

The authors wish to declare that there is no conflict of interest.

Authors' contribution:

AAO, DA and CN were actively involved in the conceptualization, design, data collection and analysis, manuscription preparation, editing and review. However, AAO was the team lead..

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