

Common Mental Health Problems among Members of a Health Care Team Managing PMTCT Patients in Lagos State, Nigeria

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Abstract: Introduction: This study investigates the prevalent mental health challenges encountered by healthcare workers involved in the management of HIV/AIDS patients within Prevention of Mother-to-Child Transmission (PMTCT) centers in Lagos State, Nigeria. Recognizing the critical role healthcare workers play in the healthcare system, understanding their mental well-being is paramount for effective patient care and overall healthcare system resilience.

Objectives: The primary objectives of this research were to identify common mental health issues faced by healthcare teams, explore their interrelated nature, and analyze the influence of healthcare workers' roles in HIV patient care on mental health challenges.

Method: A diverse sample of healthcare professionals was studied, ranging from nurses to doctors, with a focus on their experiences with insomnia, depression, anxiety, headaches,

stigmatization, and somatization. A comprehensive methodology including surveys and statistical analyses was employed to capture the complex relationships between these variables.

Results: The study uncovered a myriad of mental health challenges faced by healthcare workers, notably headaches (48%), insomnia (42%), depression (29.9%), anxiety (19.9%), stigmatization (19.9%), and somatization (27%). Surprisingly, the research revealed that second-line healthcare workers exhibited higher vulnerability to these challenges compared to frontline workers, challenging established assumptions in the field. For example, among second-line healthcare workers, 50.8% experienced insomnia, 45.2% suffered from depression, 51.1% reported headaches, and 46.1% had somatic symptoms. These figures highlight the significant burden faced by this group.

Conclusion: The findings underscore the urgent need for targeted mental health support programs for healthcare workers, emphasizing equitable workload distribution and policies combating workplace stigmatization. Addressing these challenges is vital not only for the well-being of healthcare workers but also for enhancing the quality of care provided to patients, thus ensuring a robust and effective healthcare workforce.

Recommendation: To address the mental health challenges identified, healthcare institutions should prioritize comprehensive mental health support programs, including counseling services and stress management workshops. Additionally, policies combating workplace stigmatization and discrimination should be implemented. Creating a supportive work environment, offering opportunities for professional development, and ensuring reasonable workload distribution are essential steps toward bolstering the resilience and effectiveness of the healthcare workforce in managing HIV/AIDS patients..

Keywords: healthcare workers, mental health, HIV/AIDS, PMTCT, Nigeria, mental health challenges, healthcare institutions, stigma, second-line workers, healthcare workforce, patient care quality.

BACKGROUND

The World Health Organization (WHO) has provided a comprehensive definition of health, emphasizing that it encompasses not only physical wellbeing but also mental and social wellbeing. It's a state where individuals not only lack disease or infirmity but also enjoy a sense of complete wellbeing (WHO, 2016). The mental or psychological aspect of health is particularly critical, as it includes factors such as emotional wellbeing, the ability to cope with life's challenges, and the capacity to contribute positively to one's community (Galderisi et al., 2015). Thus, a holistic approach to health considers not just the absence of illness but also mental and social factors.

Within the framework of this holistic health definition, the concept of burnout has gained recognition. WHO's International Disease Classification (ICD-11) categorizes burnout as an "occupational phenomenon" resulting from prolonged and unmanaged workplace stress (WHO, 2019). This acknowledgment highlights the significance of addressing occupational stress and its impact on mental health.

Creating a conducive work environment is not only vital for the wellbeing of individuals but also for the overall effectiveness and efficiency of organizations (Zhenjing et al., 2022). Such environments foster excellence, encourage innovation, and enhance productivity, leading to a reduction in resource wastage and overall economic growth. As the nature of careers becomes increasingly complex, organizations must adapt their routines and provide support to their employees to maintain their wellbeing (Tekin et al 2017).

Occupations do not merely involve the provision of knowledge and services; they also require organizations to prioritize their employees' professional safety, including factors related to

discretion and freedom (Kisely et al 2020). Psychological wellbeing plays a crucial role in any occupation, as it can either mitigate job-related stress and injuries or exacerbate them. Therefore, preventing burnout has become a core element in the context of public health (Gao et al., 2013; Žutautienė et al., 2020).

The global challenge of HIV/AIDS persists, with millions of lives lost and many more affected by the virus (Ndejjo et al., 2015). Sub-Saharan Africa bears a substantial burden of this epidemic, with Nigeria having one of the largest populations of people living with HIV/AIDS (UNAIDS, 2018; WHO & UNAIDS, 2016; NACA, 2016). In this context, the prevention of mother-to-child transmission (PMTCT) is a vital strategy to reduce HIV transmission rates (UNAIDS, 2018; WHO, 2016; Joint United Nations Programme on HIV/AIDS, 2016).

For women living with HIV/AIDS, the decision to have children is influenced by various factors, including cultural norms, family pressure, access to healthcare, and healthcare providers' attitudes (Grover et al., 2018; Hert 2020; Gergen 2017). Healthcare workers involved in HIV/AIDS care often face high levels of stress, which can lead to job dissatisfaction and burnout (Abushaikha et al., 2009; Spoor et al., 2010). This, in turn, can adversely affect the quality of care they provide, creating a cycle of challenges in HIV/AIDS management.

This study aims to provide a comprehensive investigation into the common mental health problems and the factors influencing healthcare workers managing HIV/AIDS patients in PMTCT centers in Lagos State, Nigeria. The findings of this study will contribute to improving the occupational welfare of healthcare workers, identifying areas of improvement in care delivery, and enhancing the quality of HIV/AIDS and PMTCT services. Furthermore, it underscores the importance of incorporating the latest HIV management strategies into the education and continuous development programs of healthcare professionals (Lai & Ma, 2019).

Materials and Methods

Study Area: This research was conducted in a General hospital in Lagos State, one of the 28 general hospitals managed by the Health Service Commission. The Lagos State Ministry of Health oversees healthcare services in the state, which are structured into primary, secondary, and tertiary levels. Primary healthcare is under the Primary Healthcare Board, while General Hospitals, including those offering PMTCT services, fall under the Health Service Commission.

Study Design: A descriptive cross-sectional study was carried out among healthcare providers working in the PMTCT units of Secondary Healthcare facilities in Lagos State, Nigeria. The study utilized adapted and semi-structured questionnaires administered through interviews.

Study Population: The study population included healthcare workers from various cadres providing services in PMTCT units across Lagos State Secondary Healthcare facilities.

Sampling Technique: A multistage sampling technique was employed. First, specific healthcare facilities were purposively selected based on the availability of PMTCT services. Second, stratified sampling was used to allocate questionnaires to different healthcare professions based on the number of healthcare workers in each category. Lastly, convenience sampling was used to administer the questionnaires to the selected healthcare workers.

Data Collection and management: Data were collected using a questionnaire that incorporated demographic information and five psychometric instruments. The questionnaire was administered through interviews conducted by trained research assistants. Clarifications were provided for questions when needed.

Data Management and Presentation: Data were entered and analyzed using IBM SPSS statistics version 21. Pearson's product-moment correlation coefficients were computed to explore the relationships between burnout dimensions (emotional exhaustion, depersonalization, and personal accomplishment) and various factors including job status, age, workload,

organizational constraints, interpersonal conflict at work, and HIV and AIDS stigma by association. The results were presented in tables.

Ethical Consideration: Ethical considerations were taken into account throughout the study. Informed consent was obtained from all participants, who were assured of the confidentiality of their information. Ethical approval was obtained from the Lagos State Ministry of Health's Ethical Review Committee.

RESULTS

Socio-demographic characteristics

Table 1 shows the socio demographic characteristics of the respondents. The study revealed that respondents' age ranged between 25years and 52years with the mean age being 32.9 ± 6.04 . It was revealed that there was more female gender (71.5%). Many respondents (69%) were married. There were more nurses (48.4%) and this is followed by CHO (22.1%) and Doctors (21%). Other respondents (4.6% and 3.9%) were Lab Scientists and SCHEW respectively. Respondents' years in service ranges between 3years and 20years with the mean age being 8.06 ± 4.41 .

Table 1: Socio-demographic characteristics

Variable	Frequency (400)	Percentage (100)
Gender		
Male	114	28.5
Female	286	71.5
Family status		
Single	124	31.0
Married	276	69.0
Health-worker title		
Nurse	193	48.4
SCHEW	16	3.9
Doctor	84	21.0
CHO	88	22.1
Lab Scientist	19	4.6
Years in Service		
Minimum	3	
Maximum	20	
Mean \pm S.D.	8.06 ± 4.41	
Age at last birthday		
Minimum	25	
Maximum	52	
Mean \pm S.D.	32.9 ± 6.04	

Work-related characteristics

Table 2 shows the work-related characteristics of the respondents. There were more respondents (64.8%) who had majorly been on day duty for about a month. Others (22.1% and 13.2%) respectively were on night and alternate shift respectively. Almost half of the respondents (43.8%) mentioned that their health status was very good while others (56.2%) indicated that their health status was good. Majority (77.6%) were satisfied with their work. There were more (62.6%) respondents who were second line workers.

Table 2

Variable	Frequency (400)	Percentage (100)
Shift duty in the last one month		
Night	88	22.1
Day	256	64.8

Alternate	56	13.2
Health Status Perception		
Good	225	56.2
Very Good	175	43.8
Satisfaction with work		
Intermediate	37	9.3
Good	328	77.6
Very Good	35	13.2
Category of workers' closeness in HIV patients' care		
First Line Workers	150	37.4
Second Line	250	62.6

Common mental health problems among health workers

Table 3 shows the common mental health problems among health workers in the last one month. It was found that all healthcare workers suffer from at least one of the common mental health problem listed. Almost half of the respondents (42%) suffer from insomnia, about one-third (29.9%) suffer from depression, one-fifth experienced anxiety, one-third (34.9) found it hard to sleep without the use of agent, almost half (48%) suffer from headache, one-fifth (19.9%) were stigmatized, while some also suffer from somatization. Overall, healthcare workers suffer more from headache and insomnia with prevalence of 48% and 42% respectively.

Table 3

Variable	Frequency (400)	Percentage (100)
Insomnia		
Yes	168	42.0
No	232	58.0
Depression		
Yes	119	29.9
No	281	70.1
Anxiety		
Yes	80	19.9
No	320	80.1
Use of Agent		
Yes	139	34.9
No	261	65.1
Headache		
Yes	192	48.0
No	208	52.0
Stigmatization		
Yes	80	19.9
No	320	80.1
Somatization		
Yes	108	27.0
No	292	73.0

Association between common mental health problems and health workers' profession

Table 4 shows the result of using a Pearson chi-square test of independence to show the relationship between common mental health problems faced by health workers and health worker's profession. Here, a layered crosstab of common mental health problems by health workers' profession was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. It was observed that there was a statistically significant relationship between health workers' profession and associated common mental health problems

with Insomnia ($X^2(4) = 11.7, p = .02$), Depression ($X^2(4) = 11.6, p = .021$), Anxiety ($X^2(4) = 11.5, p = .021$), Use of Agent ($X^2(4) = 9.7, p = .04$) Stigmatization ($X^2(4) = 11.5, p = .021$) and Somatization ($X^2(4) = 10.2, p = .03$).

Table 4

Common mental health Problems		Health workers' profession					X ²	DF	P
		Nurse	SCHEW	Dr.	CHO	Lab Scientist			
Insomnia	Yes	80(40.7%)	27(5.9)	50(17.8)	66(29.7)	14(5.9)	11.7	4	.020
	No	90(54%)	4(2.5%)	12(23.3%)	27(16.6%)	6(3.7%)			
Depression	Yes	100(50%)	11(6%)	49(28.6%)	15(10.7%)	8(4.8%)	11.6	4	.021
	No	90(47.7%)	6(3%)	35(17.8%)	39(26.9%)	9(4.6%)			
Anxiety	Yes	27(48.2)	5(8.9)	13(23.2)	6(10.7)	5(8.9)	11.5	4	.021
	No	150(48.4%)	6(2.7%)	46(20.4%)	56(24.9%)	8(3.6%)			
Use of Agent	Yes	48(49%)	7(7.1%)	25(25.5%)	14(14.3%)	4(4.1%)	9.7	4	.04
	No	160(48.1%)	4(2.2%)	34(18.6%)	48(26.2%)	9(4.9%)			
Headache	Yes	56(41.5%)	7(5.2%)	29(21.5%)	36(26.7%)	7(5.2%)	6.3	4	.17
	No	80(54.8)	4(2.7%)	30(20.5%)	26(17.8%)	6(4.1%)			
Stigmatization	Yes	27(48.2%)	5(8.9%)	13(23.2%)	6(10.7%)	5(8.9%)	11.5	4	.021
	No	200(48.4)	6(2.7%)	46(20.4%)	56(24.9%)	8(3.6)			
Somatization	Yes	59(51.3%)	4(5.3%)	22(28.9%)	8(10.5%)	3(3.9%)	10.2	4	.03
	No	109(47.3%)	7(3.4%)	37(18%)	54(26.3%)	10(4.9%)			

Association between common mental health problems affecting healthcare workers

Table 5 shows the effect of using a Pearson correlation coefficient test to show the relationship between common mental health problems affecting healthcare workers managing HIV patients. Information from the table showed that the common mental health problems are associated. Depression was positively associated with Insomnia ($r = .200, p < .01$). Use of Agent was positively associated with Anxiety ($r = .158, p < .01$). Headache was positively associated with Insomnia ($r = .885, p < .00$) and Depression ($r = .150, p < .05$). Stigmatization was positively associated with Anxiety ($r = 1.00, p < .00$) and Use of Agent ($r = .158, p < .01$). Somatization was positively associated with Insomnia ($r = .180, p < .01$), Depression ($r = .932, p = .00$) and Headache with ($r = .120, p < .05$).

Table 5: Correlation matrix among common mental health problems affecting healthcare workers

		Mean	S.D	1	2	3	4	5	6	7
1	Insomnia	1.58	.494	1						
2	Depression	1.70	.459	.200**	1					
				.001						
3	Anxiety	1.80	.400	.009	.044	1				
				.884	.463					
4	Use of Agent	1.65	.477	-.002	.093	.158**	1			
				.969	.120	.008				
5	Headache	1.52	.501	.885**	.150*	.037	.014	1		
				.000	.012	.533	.819			
6	Stigmatization	1.80	.400	.009	.044	1.000**	.158**	.037	1	
				.884	.463	.000	.008	.533		
7	Somatization	1.73	.445	.180**	.932**	.037	.042	.120*	.037	1
				.002	.000	.535	.484	.044	.535	

Association between Common mental health problems faced by health workers and Health workers' closeness in HIV patient care

Table 6 shows the result of using a Pearson chi-square test of independence to show the relationship between common mental health problems faced by health workers and health worker's closeness in HIV patient care. Here, a layered crosstab of common mental health problems by health workers' closeness was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. It was observed that common mental health problems associated with health worker's closeness in HIV patient care were Insomnia ($X^2(1) = 15.8, p < .00$), Depression ($X^2(1) = 15.5, p < .00$), Headache ($X^2(1) = 14.8, p < .00$) and Somatization ($X^2(1) = 12.2, p < .01$). Overall, there were more second line healthcare worker who had more common mental health problems.

Table 6: Common mental health problem vs Health worker's closeness in HIV patient care

Description		Closeness to HIV patient		X ²	DF	P	Outcome
		Front line	Second line				
Common mental health problems							
Insomnia	Yes	60(50.8%)	58(49.2%)	15.8	1	.000	Sig
	No	45(27.6%)	118(43.4%)				
Depression	Yes	46(54.8%)	38(45.2%)	15.5	1	.000	Sig
	No	59(29.9%)	138(70.1%)				
Anxiety	Yes	23(41.1%)	33(58.9%)	0.41	1	.540	N.Sig
	No	82(36.4%)	143(63.6%)				
Use of Agent	Yes	42(42.9%)	56(57.1%)	1.94	1	.196	N.Sig
	No	63(34.4%)	120(65.6%)				
Headache	Yes	66(48.9%)	69(51.1%)	14.8	1	.000	Sig
	No	39(26.7%)	107(73.3%)				
Stigmatization	Yes	23(41.1%)	33(58.9%)	0.41	1	.540	N.Sig
	No	82(36.4%)	143(63.6%)				
Somatization	Yes	41(53.9%)	35(46.1%)	12.2	1	.001	Sig
	No	64(31.2%)	141(68.8%)				

Discussion

The study encompassed a diverse group of healthcare professionals, ranging in age from 25 to 52 years, with an average age of 32.9±6.04. The majority were females (71.5%), married (69%), and predominantly nurses (48.4%), followed by Community Health Officers (CHO) at 22.1% and doctors at 21%. A small percentage included Lab Scientists (4.6%) and State Community Health Extension Workers (SCHEW) (3.9%). These demographics align with previous studies by Ehiri et al (2018) and Bashorun et al (2014), indicating a representation typical of healthcare workers in Nigerian public health facilities. On average, participants had 8.06 ± 4.41 years of experience in the healthcare sector, ranging from 3 to 20 years, with 64.8% primarily working day shifts.

In terms of health status, 43.8% reported excellent health. The study identified prevalent issues such as headaches (48%) and insomnia (42%) among healthcare workers, consistent with previous research by Saragih et al. (2021), Ullah (2011), and Sekoni and Owoaje (2013), which also noted high rates of these problems among healthcare professionals. The analysis revealed positive associations between mental health problems. For instance, depression was linked with insomnia ($r = .200, p < .01$), and the use of agents correlated with anxiety ($r = .158, p < .01$). Headaches were positively associated with insomnia ($r = .885, < .00$) and depression ($r = .150, p < .05$). Stigmatization showed positive correlations with anxiety ($r = 1.00, p < .00$) and agent use ($r = .158, p < .01$). Moreover, somatization was connected to insomnia ($r = .180, p < .01$), depression

($r = .932$, $p = .00$), and headaches ($r = .120$, $p < .05$), aligning with findings by Rodríguez et al (2020), highlighting the interrelated nature of these mental health issues.

The study delved into the relationship between mental health problems and healthcare workers' roles in HIV patient care. Significant associations were found between healthcare worker closeness and common mental health problems, including insomnia ($X^2(1) = 15.8$, $p < .00$), depression ($X^2(1) = 15.5$, $p < .00$), headaches ($X^2(1) = 14.8$, $p < .00$), and somatization ($X^2(1) = 12.2$, $p < .01$). Surprisingly, second-line healthcare workers exhibited a higher propensity for these mental health issues, contrary to previous studies (Rodríguez et al, 2020; LaiJ, 2020; Sekoni and Owoaje, 2013) suggesting that being a frontline healthcare worker increased the risk of major mental health problems. Notably, over 40% of the sample of frontline HCWs reported needing specific interventions for emotional crises, emphasizing the urgent need for remote psychological interventions.

In summary, this in-depth analysis offers crucial insights into the mental health challenges faced by healthcare workers, illustrating the intricate connections between various mental health problems. The results underscore the urgency of addressing these issues, particularly among second-line healthcare workers, to enhance the overall well-being of the healthcare workforce.

CONCLUSION AND RECOMMENDATION

This study has provided valuable insights into the mental health challenges experienced by healthcare workers in the context of HIV patient care. The findings reveal a complex interplay of mental health issues, with a significant prevalence of problems such as headaches, insomnia, depression, anxiety, stigmatization, and somatization among healthcare professionals. Notably, the study highlights that these mental health concerns are not confined to frontline workers but also affect second-line healthcare workers. To address these pressing issues, healthcare institutions and authorities should prioritize the implementation of comprehensive mental health support programs for healthcare workers. These programs should include access to counseling services, stress management workshops, and mental health awareness campaigns. Special attention should be given to second-line healthcare workers who may be at increased risk. Moreover, healthcare facilities should create a work environment that promotes employee well-being. This can be achieved through measures such as reasonable workload distribution, ensuring adequate rest and breaks, and providing opportunities for professional development and career advancement. Additionally, policies to address workplace stigmatization and discrimination should be implemented.

Addressing the mental health challenges of healthcare workers is not only crucial for their own well-being but also for the quality of care they provide to patients. By taking proactive steps to support the mental health of healthcare professionals, we can enhance the overall resilience and effectiveness of the healthcare workforce.

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