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Page: 85 - 91 https://amjd.kiu.ac.ug

THE DIFFERENTIAL ROLE OF AGE AND GENDER ON THE MENTAL HEALTH OF NIGERIAN HEALTHCARE WORKERS

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Abstract

In recent years, the mental health of healthcare workers in Nigeria has increased significantly. There is an increasing interest in understanding how age and gender contribute to mental health among these workers. Most existing research, however, focuses on populations from Western and Asian nations. This study analyzes data from a sample of Nigerian healthcare workers to address this gap and enhance the understanding of mental well-being in Nigeria. The study employed inferential statistics using the T-test and ANOVA to determine significant differences in mental health outcomes between male and female HCWs. The results indicate that male healthcare workers had a slightly higher average depression score ($\bar{x}$ = 11.56) compared to their female counterparts ($\bar{x}$ = 11.07). Additionally, healthcare workers aged 20-35 years had a marginally higher average depression score ($\bar{x}$ = 11.27) compared to those aged 36-60 years ($\bar{x}$ = 11.15). However, the effect size (η^2 = 0.0006) shows that age accounts for only 0.06% of the variance in depression levels among healthcare workers in Nigeria, indicating a minimal effect. The findings suggest that while age and gender may influence the mental well-being of healthcare workers, other factors likely play a more significant role. Therefore, the study recommends implementing comprehensive mental health programs accessible to all healthcare workers, regardless of age or gender. This approach aims to provide universal support and improve the overall mental health of healthcare staff.

Keywords: Mental health, Age, Gender, Nigerian healthcare workers

Introduction

The mental health of healthcare workers has become a significant concern globally, with factors such as age and gender playing important roles in influencing their psychological well-being. The COVID-19 pandemic has also drawn weighty attention to the mental well-being of healthcare professionals worldwide. Research indicates that HCWs are more susceptible to mental health problems, such as depression, anxiety, stress, insomnia, and post-traumatic stress disorder (PTSD) (Liu, Yang, Zhan, 2021; The Lancet, 2021), in which female HCWs are more vulnerable compared to their male counterparts. The female HCWs had significantly higher scores in these areas, even after adjusting for potential confounders (The Lancet, 2021). Several other factors, such as healthcare

infrastructure, cultural attitudes towards mental health, and the availability of mental health resources, have been identified to influence the mental health of HCWs (JAMA,2021). It was also noted that healthcare workers in countries with robust healthcare systems and better mental health support reported lower levels of psychological distress compared to those in regions with less support, such as Nigeria.

Age is a significant factor that impacts mental health among HCWs. Younger workers, for example, have been identified as being at higher risk for mental health issues. Factors such as limited experience and coping mechanisms may contribute to this vulnerability (Molina, Amigo, Vilagut, 2024). The intersection of age and gender further complicates these dynamics. For instance, younger female HCWs may experience compounded stress due to both age-related inexperience and gender-related societal expectations. Understanding how these factors interact is essential for developing targeted interventions to support HCWs' mental health.

In Nigeria, the healthcare system faces unique challenges, including resource constraints and high patient loads, which can exacerbate stress among HCWs. However, there is a paucity of research focusing on how age and gender specifically affect the mental health of Nigerian HCWs. Addressing this gap is crucial for informing policies and interventions tailored to the Nigerian context. This study, therefore, aims to explore the differential impacts of age and gender on the mental health of Nigerian healthcare workers, providing insights that could lead to more effective support systems within the healthcare sector.

Depression is one of the major mental health disorders, and research in Africa has demonstrated high rates of depression among healthcare workers, often attributed to heavy workloads, limited resources, stigmatization, and exposure to traumatic events in the course of service. For instance, a study in Ethiopia reported that 50.1% of healthcare workers experienced symptoms of depression, while older age groups and females were associated with symptoms of anxiety (Ayalew, Deribe, Abraham, 2021). A study reported an increased rate of depression among HCWs in Africa to be 12.5% to 71.9% (Olashore, Akanni, Fela-Thomas, Khutsafalo, 2021). Notably, none of these studies in Africa focused on the mental health of healthcare workers in relation to age and gender to determine their depressive levels.

Theoretically, intersectionality theory (Crenshaw, 1989) is characterized by the interaction of overlapping social categories such as gender, age, class, and profession, which create distinct ways of advantage or disadvantage. Intersectionality is essential for healthcare workers in Nigeria because age and gender do not independently predict mental illness; instead, they interact with occupation, social expectations, and cultural norms that establish various vulnerabilities. This perspective acknowledges that women and men of different ages are not at mental health risk on their own but rather interdependently, which can either increase or decrease psychological distress (Bowleg, 2012; Hankivsky, 2012). Additionally, the life-course approach (Elder, 1998) emphasizes that timing, transitions, and trajectories throughout life influence health and well-being. The life-course approach shows that mental health status is dynamic and is shaped not only by past age but also by historical, cultural, and institutional factors (Ben-Shlomo & Kuh, 2002).

Moreover, numerous literature reviews have explored the relationship between age, gender, and mental well-being from different perspectives. For example, a study in the USA confirmed that stigmatization is one of the major sources of mental distress associated with depression among HCWs, irrespective of their gender (Hennein, Poulin, Gorman, Lowe, 2023). Many researchers have

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also examined the mental well-being of healthcare workers, considering variables such as stress, sleep, work burnout, quality of working life, and marital status. However, this study distinguishes itself in several keyways. Firstly, it focuses on Nigeria, a developing African nation, providing a unique geographical context that differs from previous studies. Secondly, it explores mental health in conjunction with two demographic variables, age and gender, offering a more comprehensive understanding. Thirdly, the study includes healthcare workers of both genders, rather than focusing on a single gender.

Objectives

This study examines the differential roles of age and gender on the mental health of healthcare workers in Nigeria. Specifically,

1) To examine the difference between the mental health of male and female healthcare workers in Nigeria.
2) To examine the difference between the mental health of younger and older healthcare workers in Nigeria.

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

1) There is no significant difference in the mental health of male and female healthcare workers in Nigeria.
2) There is no significant difference in the mental health of the younger and older healthcare workers in Nigeria.

Methodology

A total number of 119 healthcare workers (male = 27, female = 92) with an age range of 20-35 years and 36-60 years were selected based on availability and interest. Questionnaires were sent through broadcast messages with a brief description of the study via a series of networks of healthcare workers' WhatsApp groups in Nigeria. Questionnaires were then filled out and submitted via the attached questionnaire Google form link.

The Health Professionals Anxiety and Depression Scale (HPADS) was used to evaluate mental health conditions. The items on depression were adapted and modified with the incorporation of additional items relevant to health professionals from the Hospital Anxiety and Depression Scale (HADS) developed by Zigmond and Snaith (1983). The scale was scored 0-7 (Normal range); 8-10 (Mild depression); 11-14 (Moderate depression), and 15-21 (Severe depression). It has seven items with a specificity of 0.79 and a sensitivity of 0.83. Age, gender, and years of experience information were collected as part of the demographics.

Statistical Analysis

The responses obtained through the Google Forms link were subjected to analysis with the help of IBM Statistical Package for Social Sciences-19. The study adopted inferential statistics using the T-test and ANOVA to test the differences between the mental health of male and female healthcare workers.

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Results

Table 1: T-test summary

Variable	Gender	N	Mean	St.dv	Df	T	Sig.	P	η^2
Depression	Female	92	11.07	2.15	117	-1.03	0.65	>0.05	0.009
	Male	27	11.56	2.31					

Table 2: ANOVA summary showing differences in health workers' depression levels based on age

Variable	Mean	St.dv	Sum of squares	Df	Mean of Squares	F	Sig.	η^2
20-35 years	11.27	2.74	0.326	1	0.33	0.068	0.79	0.0006
36-60 years	11.15	1.98	562.97	117	4.81			

Table 1 reveals that there is no significant difference in the depressive state of male and female health workers in Nigeria; $t(117)= -1.03$, $p>0.05$, $\eta^2= 0.009$. Thus, the null hypothesis is accepted. The table further reveals that the male health workers (x=11.56) recorded a higher tendency for depression than female health workers (x=11.07). Effect size ($\eta^2=0.9$) reveals that gender explained a 0.9% change in the depressive state of health workers in Nigeria.

Table 2 reveals that there is no significant difference between the depressive state of health workers in Nigeria based on age range; $f(1,117)=0.068$, $p>0.05$, $\eta^2= 0.0006$. Thus, the null hypothesis is accepted. The table shows that health workers between the ages of 20-35 years (x=11.27) have a higher tendency for depression than health workers of age 36-60 years (x=11.15). Effect size ($\eta^2=0.0006$) reveals that age explained a 0.06% change in the depressive state of health workers in Nigeria, which is an extremely small effect.

Discussion

The study sought to explore how age and gender influence the mental health of healthcare workers (HCWs) in Nigeria. Specifically, the research aimed to determine whether male and female HCWs experience different levels of mental health issues, such as depression. However, the findings indicate that there was no statistically significant difference in mental health between male and female HCWs. This suggests that gender does not play a major role in determining mental health outcomes among Nigerian HCWs, contrary to what some previous studies might suggest, e.g., Chirikov, Soria, Horgos, and Jones-White (2020) and Wang, Hegde, and Son (2021) identified that females exhibited higher levels of depression and anxiety than males. Likewise, Browning, Larson, Sharaisvska et al. (2021) and Copeland, McGinnis, Bai (2021) noted that females experienced greater stress levels. These findings imply that women may be more susceptible to depression and anxiety due to diverse socio-cultural factors and stressors (Chirikov et al., 2020; Wang et al., 2021; Browning et al., 2021; Copeland et al., 2021).

On the other hand, the current study's finding aligns with some research indicating no significant gender differences in mental health outcomes. For instance, Robinson, Sutin, Daly, and Jones (2020) did not identify any gender-based disparities in the variations of mental health symptoms, and Alamu (2007) noted that gender does not influence responses to crises. Alamu and Ogundokun (2012) also found no gender impact on antisocial behaviour. In a nutshell, this study did not find significant gender differences in the mental health outcomes among health workers in Nigeria; it underscores

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the necessity of accounting for contextual and cultural factors when assessing mental health outcomes. The small effect size indicates that other variables might have a more significant impact on mental health outcomes among healthcare workers, suggesting the need for further research to identify and address these factors.

Furthermore, the study also found that there is no statistically significant difference between the mental health of younger and older HCWs in Nigeria. Previous literature offers varied insights into the relationship between age and depression. For example, research indicates that younger adults frequently experience elevated levels of depression compared to older adults, potentially due to greater life stressors, transitions, and uncertainties faced by younger individuals. This trend has been observed in various settings, including healthcare environments. For instance, Gao, Pan, and Sun (2019) discovered that younger nurses exhibited greater levels of burnout and depression than their older colleagues. Similarly, McDowell, Patel, and Drayton (2020) found that younger healthcare workers faced higher psychological distress during the COVID-19 pandemic, potentially due to their limited experience and coping mechanisms. On the other hand, some research suggests that older adults might experience higher depression levels due to chronic health conditions, increased responsibilities, or cumulative stress over time. However, in the context of Nigerian healthcare workers, the minimal effect size found in this study suggests that other factors may play more substantial roles in influencing mental health, regardless of age.

The slightly higher depression scores among younger health workers in this study could be attributed to factors such as early career stress, financial instability, and work-life balance challenges, which are more prevalent among younger professionals. Meanwhile, older HCWs might have developed better coping mechanisms and support systems over time. However, while this study finds no significant age difference in the mental health states of HCWs in Nigeria, it underscores the importance of considering a range of factors that contribute to mental health outcomes. The small effect size suggests that age by itself is not a significant factor in determining mental health outcomes among HCWs, emphasizing the necessity for additional research to investigate other contributing factors.

This study, therefore, recommends comprehensive mental health programs that provide universal access to all healthcare workers regardless of age or gender. Also, development and offer of tailored interventions and resources on mental health programs that address the unique stressors and needs of different age groups and genders. For example, younger healthcare workers might benefit from early career counseling and stress management workshops, while older workers might need support for chronic stress and work-life balance. In addition, regular mental assessments with routine screening should be conducted regularly to identify and address depression and other mental health issues early and ensure that these assessments consider the slight variations in depression tendencies among different age and gender groups to provide personalized care and support for the healthcare workers in Nigeria. Finally, Healthcare stakeholders should provide counselling services as a support system by having access to confidential counseling services and mental health professionals who understand the specific pressures faced by healthcare workers.

However, the findings of this present study must be interpreted in the light of certain limitations. First, it is a cross-sectional study; longitudinal studies might provide a better understanding in this area. Also, the sample size is relatively small. In addition, it is limited to HCWs in Oyo and Ekiti States respectively. Apart from these limitations, there are other factors, possibly related to the work

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environment, personal circumstances, or broader societal influences, which may play more critical roles in affecting the mental health of healthcare workers in Nigeria.

Conclusion

In conclusion, this study has established that age and gender are not determining factors of mental health outcomes among HCWs in Nigeria. This suggests that there is a need for a wider approach to understanding and addressing mental health issues among healthcare workers in Nigeria. While age and gender alone do not significantly influence mental health, the slight variations observed point to underlying factors that merit further investigation. Future research should explore these factors, including work-related stress, support systems, cultural influences, and individual coping mechanisms, to develop more effective mental health interventions.

Ethical Approval and Participant Consent

Since the study did not require human specimens and the participants involved were professionals, there is no need for ethical approval. Anonymity of all participants was maintained, as no personal details such as name, contact number, or e-mail address were required. A brief note of individual consent was included in the questionnaire, and only those who consented to participate (119 HCWs) submitted their responses. Their responses to the questionnaires were not discussed outside the research context.

Disclosure Statement

No potential conflict of interest was declared by the authors

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