Assessing Burnout Among Healthcare Professionals in a private Hospital in Abuja, Nigeria: Prevalence, Patterns, and Implications

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Abstract

Background: Burnout is a significant concern among healthcare professionals, with prevalence rates ranging from 25% to 75% among physicians globally. The COVID-19 pandemic has exacerbated psychological distress, leading to increased exhaustion, job dissatisfaction and poor healthcare delivery. Identifying burnout types—frenetic, under challenged and worn-out—is crucial for effective treatment. This study aimed to determine the prevalence, patterns, and implications of burnout among healthcare professionals in a private hospital in Abuja, Nigeria.

Methods: A cross-sectional study was conducted at Nisa Premier Hospital in Abuja. The study included 100 healthcare professionals selected through multistage sampling. Data was collected using a pretested, adapted Burnout Clinical Subtypes Questionnaire (BCSQ-12). Statistical analysis was performed using SPSS version 26, with descriptive statistics and Chi-square tests employed to determine associations.

Results: The study found a high prevalence of burnout among healthcare professionals, with 85% reporting burnout. The most common burnout type was frenetic (71%), followed by worn-out (61%) and under challenged (18%). No significant associations were found between burnout and sociodemographic or occupational characteristics.

Conclusion: Burnout prevalence was high among healthcare professionals at Nisa Premier Hospital, with frenetic being the most common subtype. Despite the lack of associations with sociodemographic or occupational factors, the findings emphasize the need for organizational health interventions. Implementing occupational health clinics for regular mental health screening and prompt intervention is recommended to enhance health professionals' overall well-being and performance.

Keywords: Burnout, healthcare professionals, private hospital, Abuja.

Introduction

In spite of the increasing evidence that health workers are fundamental for ensuring equitable access to health services and achieving universal health coverage, many countries continue to experience severe workforce shortage.[1] In the 49 countries identified by the World Health Organisation (WHO) as having insufficient density of doctors, nurses and midwives, Nigeria is in the sixth position.[2]Current statistics show that 1 in 4 doctors, and 1 in 20 nurses, trained in Africa are currently working in developed countries, with this accounting for a shortfall of over 1.5 million health workers in the region.1The factors contributing to the trend remain multifaceted, with provider burnout playing a crucial role in this phenomenon.[3]
Burnout is a common phenomenon among health care professionals due to the intense and continuous nature of contact with individuals receiving care.[4] Research has shown that burnout rates are alarmingly high in healthcare professionals with ranges between 25% to 75% globallyamong physicians.[5] This trend was worsened by the occurrence of the COVID-19 pandemic that further elevated psychological distress among healthcare workers. Consequently, the distress results in exhaustion, job dissatisfaction and poor healthcare delivery.[6,7]According to Faber, burnout can be described as clinical profiles based on the degree of dedication to work. He proposed three different types which include frenetic (overload), underchallenged (lack of development) and worn out neglect.[8]Determining the type of burnout is important since the treatment is dependent on the type.[9]

Until recently, global estimates of the prevalence of burnout ranged from 10-70 % among nurses and 30-50% among physicians, nurse practitioners and physician assistants.[3] This finding was consistent in north-central Nigeria where a cross-sectional multi-center study in 2015 showed the prevalence of burnout across all dimensions to be 34.8%.[10]This was also comparable to a similar multi-center study in the south-south region in 2020 that revealed the overall prevalence of burnout was 41.7%.[11]Another studyin 2020 found a comparatively higher prevalence of burnout among physicians at 75.5%.[12]That study also identified that the grade, age and years of experience of the professionals were associated with the exhaustion domain of burnout, whereas only age was associated with the disengagement domain. No socio-demographic or work related characteristic determined overall burnout.[12]
Evidence has shown that in situations where staff who experience burnout are not provided with psychological intervention strategies, the resultant effects are reduced morale, low productivity and reduced effectiveness of the affected staff.[9] Other consequences include increased absenteeism, high turnover rates, frequent conflicts between patients and healthcare professionals and poor-quality patient care.[13] Majority of research on burnout in Nigeria have been in public facilities with limited research conducted on the knowledge, prevalence and effects of this condition in the private health sector. This study therefore sought to determine the prevalence, pattern and implications of burnout among healthcare professionals in a private hospital in Abuja, Nigeria.

Methodology

Study Area: The study was conducted in Nisa Premier Hospital (Nisa) in Abuja, the Federal Capital Territory(FCT) of Nigeria. The hospital was established in 1996 in the small town of Gwagwalada, a suburb in the FCT. The hospital moved from Gwagwalada to Jabi main city, its current location since 2000.Nisa provides a wide range of healthcare services including general out-patient services, family medicine, obstetrics and gynaecology (O&G), surgery, paediatrics, pharmacy, diagnostics laboratory and radiological services as well as fertility and in-vitro fertilization (IVF) services. The hospital has 60 in-patient beds and 40 baby cots.
Nisa is also involved in the clinical training of doctors and other health care professionals in Nigeria, especially in the areas of IVF,O&G, paediatrics and family medicine. The hospital provides health education to the general public through its monthly open day public enlightenment programs, as well as its medical research support programs.[14]
Nisa Hospital has staff strength of over 500, of which 440 are clinical staff, which includes 192 health professionals. The hospital's yearly turnover of patients is 25,943 with a consultation rate of 92,622 in 2020.[14]

Study Design
This study was a hospital based cross-sectional study design.

Study Population
All healthcare professionals who work at Nisa Premier Hospital were considered for participation in the study. Health care professionals included: Medical doctors (both Generalists and Specialist Practitioners), Nursing and Midwifery professionals and pharmacists. This is based on the WHO guidelines of 2013.[15] Eligibility criteria included the participant working full time at Nisa Premier Hospital for more than a year at the time of the study and the participants giving informed consent to participate in the study. Those excluded from the study included health care professionals on leave. Temporary and contract staff were also excluded from the study.

Sample size estimation
This was calculated using the Leslie and Kish formula[16] for estimating sample size for cross-sectional study;n=(Z?2pq)/d2.. We used the prevalence of burnout among healthcare workers in a hospital-based study in Jos, Nigeria which was 87%.[17]Therefore, n = 1.962 × 0.87 × (1-0.87)/ 0.052. n-174
The desired minimum sample size for population less than 10000(nf) was derived using the formula nf= n÷(1+ n/N).[18] N= is the study population size, the population size for this study was 192, nf= 174/ {1+ (174/192)} = 91. An estimated 10% was added to make up for non-response Therefore, a total of 100 participants were recruited for the study.

Sampling Method
The healthcare professionals were stratified into their various cadres to enable proportional allocation of questionnaires. The hospital had 79 doctors (42% of the total population of 192), 98 midwives and nurses (50% of the total population of 192) and 15 pharmacists (8% of the total population of 192).
The health professionals were proportionally allocated based on sample size based on their service points and departments. Doctors sampled were from the O&G department 13(31%), Pediatric department- 8(19%),Family Medicine department16(38%), Anesthesia department 3(7%) and IVFUnit-2(5%). Among the Nurses sampled were 18(36%) from the Obstetrics and Gynecology department, Pediatric department-14(28%), Family Medicine department - 13(26%), Anesthesia department-2(4%) and IVF Unit - 3(6%). The Pharmacy unit was considered alone with 8 pharmacists sampled.
Subsequently, a systematic sampling of eligible health care professionals was conducted. A sampling frame for each cadre of eligible health professions was used to calculate cadre specific sampling intervals. The eligible health professionals per stratum were divided by the proportion sampled and a sampling interval was determined. There were 75, 96 and 12 eligible doctors, nurses and pharmacists respectively. The cadre specific sampling interval was approximately 2 for doctors, 2 for nurses and 1 for the pharmacist. This was applied until the sample size per cadre was achieved.

Data collection
Those who were selected were asked to complete a pretested, adapted questionnaire- Burnout Clinical Subtypes Questionnaire (BCSQ-12).[8] The questionnaire was made up of two sections: Section A- sociodemographic and occupational characteristics and Section B- burnout dimensions which consisted of 12 items, evenly distributed into 3 dimensions comprising 4 items in each. The 'frenetic' subtype is represented by the 'overload' dimension; the 'under-challenged' subtype by the 'lack of development' dimension; and the 'worn-out' subtype by the 'neglect' dimension. Participants were required to indicate the degree to which they agree with each of the statements presented according to a scale with 7 response options, scored from a. ('totally disagree') to g. ('totally agree'). Each of the dimensions received a score which was presented as a sum of its constituent items divided by the number of items.[3]

Data Analysis
Data was analyzed using Statistical Package for Social Sciences (SPSS version 26) statistical software. Socio-demographic variables were described using descriptive statistics and presented using frequency tables. Categorical variables such as burnout subtypes, were presented using tables and charts. Each of the dimensions including frenetic, under challenged and worn-out

represented by their characteristics overload, lack of development and neglect respectively had the following questions assigned to them;Overload (O): Items 1,4,7,10;Lack of Development (Ld): Items 2,5,8,11andNeglect (N): Items 3,6,9,12. The total score summed to 28 points for each dimension (7x4).Where the score was greater than or equal to 15 for a dimension, the participant was categorized as "Yes" (Burnout subtype present). If the score was less than or equal to ? 14 for a dimension, the participant was categorized as "No" (Burnout subtype absent).Pearson's Chi square and Fischer's exact tests were used to test for statistical significance of associations. The p value was set as less than 0.05.

Ethical Considerations

Ethical approval was obtained from the Health Research Ethics Committee of the Federal Capital Territory (FHREC/2020/01/39/04-05-20). Informed consent was obtained from each participant prior to the study. The participants were not obliged to participate in the study and had the right to withdraw from the study at any point in time.

Results

The study had a total of 100 health workers. Table 1 shows that majority of the respondents were within the age group of 31-40 years (65.0%), followed by 20-30 years (28.0%), with a mean age of 33.89 years ± SD 5.17. About two-thirds of the respondents 67 (67.0%) were female. Fifty-one (51.0%) were single and 49 (49.0%) were married. Also, 51 (51.0%) of the respondents had children while 41 (41.0%) did not. Regarding educational qualifications, the majority held a bachelor's degree 68 (68.0%), while health professionals with the least qualifications were certificate holders; 16 (16.0%).

Half,50 (50.0%) were nurses, 42 (42.0%) were doctors, and 8 (8.0%) were pharmacists. Most participants had been employed for 1 to 5 years;84 (84.0%), with smaller proportions having worked for 6 to 20 years 16 (16.0%). Monthly income of the health workers varied widely, with a minimum of 65,000 naira and a maximum of 800,000 naira. In terms of promotion, less than one-third 33 (33.0%) had received a promotion, while 67 (67.0%) had not. Regarding sick leave, about one-third (34.0%) had taken sick leave within the past year, whereas 66 (66.0%) had not.

The prevalence of burnout in the study was high among the health workers with 85 (85.0%) of the respondents reporting burnout, while only 15 (15.0%) did not report having burnout.Figure 1 depicts that among those who reported burnout, most of them, 71 (71.0%) experienced the frenetic burnout subtype, 18 (18.0%)had the worn-out subtype of burnout, and 61 (61.0%)had the under challenged burnout sub-type.

From Table 3,age, gender, marital status, number of children and educational status did not show any statistically significant associations with burnout. In addition, Table 5 shows that there was no statistically significant association between occupation or employment duration and burnout.

Tables and Figures

Table 1: Sociodemographic characteristics of healthcare professionals in a private hospital, Abuja, Nigeria

Variable		Frequency (n=100)	Percentage (%)
Age group (in years)			
20-30		28	28.0
31-40		65	65.0
41-50		6	6.0
>51		1	1.0
Total		100	100
Mean±SD	33.89± 5.17		
Gender			
Male		33	33.0
Female		67	67.0
Total		100	100
Marital status			
Single		51	51.0
Married		49	49.0
Total		100	100
Parenthood			
Yes		59	59.0
No		41	41.0
Total		100	100
Educational Qualification			
Certificate		16	16.0
Diploma		3	3.0
Bachelor's degree		68	68.0
Master's degree		1	1.0
Fellowship		12	12.0
Total		100	100

Table 2: Occupational characteristics of healthcare professionals in a private hospital, Abuja, Nigeria

Variables	Frequency (n=100)		Percentage (%)
Occupation			
Doctor	42		42.0
Nurse	50		50.0
Pharmacist	8		8.0
Total	100		100
Employmentduration (years)			
1 to 5	84		84.0
6 to 10	9		9.0
9.011 to 15	6		6.0
15 to 20	1		1.0
Total	100		100
Monthly Income (Naira)			
Minimum	65,000		
Maximum	800,000		
Median (IQR)	146,000	131,000	
Promotion			
Yes	33		33.0
No	67		67.0
Total	100		100
Sick leave (within the last year)			
Yes	34		34.0
No	66		66.0
Total	100		100

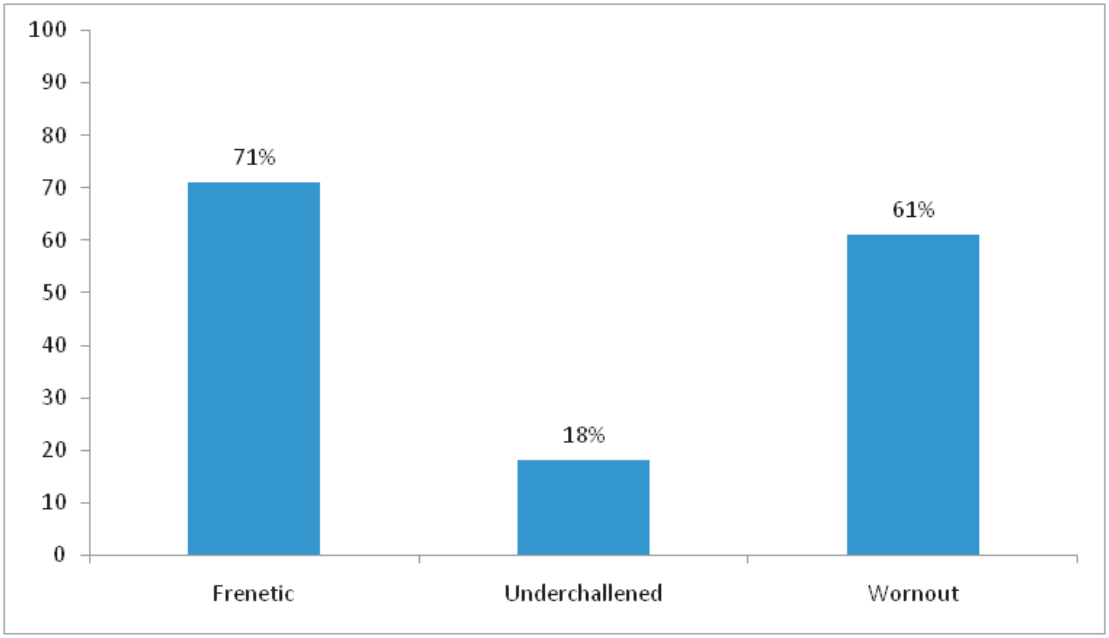

Figure 1: Pattern of burnout among health workers in a private hospital, Abuja, Nigeria

Table 3: Association between sociodemographic characteristics and burnout amonghealthcare professionals in a private hospital, Abuja, Nigeria

Variable	No Burnout n (%) n= 15	Burnout n(%) n=85	Total n (%) n=100	χ^2	p-value
Age Group					
20-30	7 (46.7)	21 (24.7)	28 (28.0)		
31-40	7 (46.7)	58 (68.2)	65 (65.0)	-	0.609*
>41	1 (6.6)	6 (7.1)	7 (7.0)		
Sex					
Female	9 (60.0)	58 (68.2)	67 (67.0)	0.021	0.884
Male	6 (40.0)	27 (31.8)	33 (33.0)		
Marital Status					
Married	6 (40.0)	43 (50.6)	49 (49.0)	0.133	0.716
Single	9 (60.0)	42 (49.4)	51 (51.0)		
Parenthood					
Yes	10 (66.7)	49 (57.6)	59 (59.0)	2.299	.681
No	5 (33.3)	36(42.4)	41 (41.0)		
Educational Level					
Certificate	4 (26.7)	12 (14.1)	16 (16.0)		
Diploma	0 (0)	3 (3.5)	3 (3.0)	-	0.4761*
Bachelor's degree	9 (60.0)	59 (69.4)	68 (68.0)		
Master's degree	0 (0)	1 (1.2)	1 (1.0)		
Fellowship	2 (13.3)	10 (11.8)	12 (12.0)		

- Fischers Exact test

Table 4: Association between occupational characteristics of healthcare professionals and burnout

Variable	No Burnout n(%) n= 15	Burnout n (%) n=85	Total n(%) n=100	χ^2	p-value
Occupation					
Doctor	10 (66.7)	32 (38.7)	42 (42.0)	4.949	0.084
Nurse	5 (33.3)	45 (52.9)	50 (50.0)		
Pharmacist	0 (0)	8 (9.4)	8 (8.0)		
Employment Duration					
1 to 5	12 (86.7)	72 (84.7)	84 (84.0)	-	0.2225*
6 to 10	2 (13.3)	7 (8.2)	9 (9.0)		
11 to 15	1 (6.7)	5 (5.9)	6 (6.0)		
15 to 20	0 (0)	1 (1.2)	1 (1.0)		
Promotion					
yes	4 (26.7)	29 (34.1)	33 (33.0)	0.320	0.572
no	11 (73.3)	56 (65.9)	67 (67.0)		
Sick Leave					
yes	4 (26.7)	30 (35.3)	34 (34.0)	0.423	0.515
no	11(73.3)	55 (6.7)	66 (66.0)		

*Fishers Exact test

Discussion

The findings indicate a high prevalence of burnout among healthcare professionals working in a private health facility in Nigeria, with the most prevalent clinical type found to befrenetic. Furthermore, in assessing association between being burnt out and socio-demographic and occupational characteristics, none of such associations were found.

The high prevalence of burnout in this study is similar to that obtained at a privately owned faith-based hospital also in the north central region of Nigeria.[17] The prevalence of burnout however was much lower in public hospitals involved in a cross-sectional study done in 2015 within the same region.[10] The varying levels of burnout between the private and public run hospitals in these studies highlight differences in workforce and organizational structure. Other factors identified by these studies that were associated with the high prevalence of burnout include high workload, inadequate personnel, difficult work conditions and low career satisfaction.[19]

With regards to the pattern of burnout from the study, majority of the respondents experienced the frenetic subtype. This was consistent with other studies where frenetic burnout had the highest mean scores.[20,21]The finding of high frenetic burnout in this study was unsurprising as it is experienced as a feeling of risking one's health and wellbeing in order to attain a desirable outcome which is classical in health workers, further accentuated during the COVID-19 pandemic within the period during which this study was conducted.

The presentation of socio-demographics of the study respondents is important for identification of risk factors of burnout with the aim of health promotion and disease prevention. In this study, the respondents with the highest frequency of burnout fell within the age group 31 to 40 years. This was similar in India where health care workers aged between 25 to 50 years had high mean scores for experiencing overload.21This was also consistent in sub-saharan Africa where younger health professionals have a higher work load, while older workers find themselves in administrative positions with less clinical work load.[11] While this study found no association between age and burnout, Odonkor and Frimpong's study among Ghanaian healthcare professionals found contrasting results, which was attributed to healthcare professionals spending more time at work which worsened the work-life balance leading to higher burnout

scores.[21,22]

Females were noted to be the majority in this study and also having a higher prevalence of burnout. This was similar in other studies where it was likely due to the domestic responsibilities females have, which worsens their work-life balance.22This study further showed that those who were single and those who did not have children had higher prevalence of burnout. There was however no statistically significant association between burnout,and marital status or parenthood. This was not consistent with other studies examined,[22,23] as it was plausible that associations found between burnout, marital status and parenthood was likely due to the responsibilities, frustrations and challenges encountered by healthcare professionals in these situations.[23] Furthermore, the group without children were said to experience work-family blacklash of having higher workload as it was believed they had more work flexibility compared to those with children.[23]This study also identified that the frequency for burnout was higher in those with tertiary education or were clinical fellows which was consistent with findings from Langade's study which showed that burnout increased with training and practice.[21] This was possibly due to the limited number of specialists whose work was more demanding, as they experienced a greater burden of decision-making responsibility with longer hours experienced.[21]

With concerns to occupation, nurses had the highest prevalence of burnout. Studies considered showed that nurses experienced difficulties with adequate personnel and frequency of night shifts which contributed to the high prevalence of burnout experienced.[24,21]In settings such as in the present study where the nurses' density is far below recommended levels, working hours and work load are considerably high. The result would be quicker exhaustion and consequently burnout. In this light, some studies have found the training of nurses on coping strategies with respect to stress as an effective method in preventing burnout and poor mental and physical health outcomes would be beneficial.[25] The high prevalence of burnout among the doctors was consistent with other Nigerian studies.[26,11]The larger size of the work force employed in public facilities as against private facilities was a plausible explanation for the higher prevalence of burnout that was obtained in this study. Furthermore, the increased patient load in private centers was considered to be due to the unavailability of quality healthcare in the public sector with accompanying increased stress. Also similar to their medical doctor counterparts discussed above, pharmacists experienced an increased level of stress as a result of workload increase and long working hours, and that they were prone to occupational stress and professional burnout owing to the nature of pharmacy practice.[27]

This study showed high burnout among those with fewer years of experience. This could also be explained by the massive brain drain among healthcare workers with resultant reduction in the workforce with higher years of experience. The reverse was however the case with Ghanaian nurses.[22] They explained that other factors such as administrative work, being confronted with suffering, individual decision-making, relationship with colleagues, patients, and patient relatives, and time pressure could mediate burnout in the older age groups which was not investigated in our study. It is more likely that as one gains experience, one also gains skills for handling varying challenging situations.[22] Burnout was not associated with either sick leave or promotion in this study. This differed from results obtained from a study among nurses managing patients with multiple sclerosis which found that burnout was associated with a higher risk of sick-leave.[28]

The findings from this study did not support several studies which showed relationships between burnout and age, gender, educational qualifications, occupation and years of experience.[11,21,22] It is important to identify that these other studies differed from this study in terms of timing, geographical location, tools for the measurement of burnout, study designs, sample size and varying statistical approaches. Other factors which have been found by previous studies to be significantly related to burnout in healthcare professionals include frequency of exposure to work-related violence, work burden, supervision and work activities. These are possible factors that can be investigated in future studies.[29] A limitation highlighted from the study stems from the study design from which causation cannot be determined. Furthermore, a multicenter study would improve generalization which is difficult from the research.

The findings from this study highlights potential challenges in workforce retention and productivity, with broader implications for healthcare quality

and public health. Addressing burnout is critical for sustaining healthcare delivery and improving staff well-being, with further research needed to inform interventions such as workload redistribution, professional development programs, and mental health support services, in reducing burnout among healthcare workers.

Conclusion

This study revealed a high prevalence for burnout among healthcare professionals working at Nisa Premier Hospital and overload was the most common subtype experienced by the respondents. However, no statistically significant association was found between burnout and the socio-demographic or occupational characteristics assessed. Based on these findings, it is recommended that management invest in organizational health to ensure organizational wellbeing and overall performance. This can be achieved via implementation of occupational health clinics tasked with intermittent mental health screening using the Burnout Clinical Subtype Questionnaire (BCSQ-12) as was employed in this study, aimed at early identification and institution of prompt intervention.

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