

OCCUPATIONAL STRESS, JOB TENURE, AND JOB BURNOUT AMONG HIGH-RISK HEALTH CARE PROVIDERS IN A NIGERIAN TERTIARY HOSPITAL

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Abstract

Healthcare professionals in Nigeria, especially those in tertiary hospitals, frequently encounters significant occupational stress and the risk of job burnout, intensified by the rigorous demands of their positions and systemic issues within the healthcare system. In Ibadan, high patient loads, limited resources, and the complexity of care in critical units exacerbate these pressures. Cross-sectional survey methodology was adopted. This study focused on 160 randomly selected high-risk healthcare professionals from four specialised units: Theatre/ICU, Accident & Emergency, Oncology, and Dentistry, at the University College Hospital, Ibadan. The sample comprised medical doctors and nurses, exhibiting a diverse demographic profile. Data were collected through the General Health Questionnaire (GHQ) and the State Trait Anxiety Index (STAI) to evaluate occupational stress, while the Maslach Burnout Inventory (MBI) assessed job burnout. Statistical analyses comprised independent t-tests, Pearson correlation, and one-way ANOVA, supplemented by Scheffé post hoc tests for multiple comparisons. Participants' age was 35.38 ± 7.52 years; 62.5% were female, while 51.87% were medical doctors. Results indicated that neither gender nor job type had a significant influence on levels of occupational stress or burnout. There was a significant positive correlation between job tenure and occupational stress. The job burnout levels of dental professionals were significantly higher than those of their colleagues in other divisions. Based on these findings, it is advised that healthcare institutions implement targeted interventions to mitigate occupational stress, particularly for professionals with short years of service and those in dental units. Regular mental health assessments, stress management programmes, and organisational support systems are essential for reducing burnout and improving the well-being of high-risk healthcare providers in Nigeria.

Keywords: Occupational stress, Job tenure, Job burnout, High-risk healthcare professionals, Tertiary healthcare

Introduction

Although scientific and technical advancements significantly reduced the prevalence of infectious diseases in the twentieth century, there has been a notable rise in degenerative conditions such as coronary heart disease, hypertension, and stress (Corbett *et al.*, 2018). The term "stress" has become ubiquitous, often used interchangeably with "hypertension," "burnout," or acute anxiety (Imtiyaz *et al.*, 2024). Phrases like "Take it easy" or "Don't let stress (or hypertension) overwhelm you" reflect common advice. But what exactly does "stress" mean? Stress refers to an individual's response to environmental demands or a misalignment between the person and their surroundings where excessive expectations are imposed or the individual lacks the capacity to cope. This mismatch can result in psychological or physical harm, such as chronic fatigue, tension, or elevated blood pressure commonly described as 'strain' (Lavreysen *et al.*, 2025).

Stress is pervasive in the workplace; the majority of individuals experience it at some point. Nearly every aspect of the work environment, from excessive noise, light, or heat to workload imbalances and insufficient or excessive supervision, can trigger stress (Brun, Gales, and Becerik-Gerber, 2025). Importantly, individuals respond differently to the same stressors. For instance, a high-achiever may thrive under pressure, finding motivation in tension, while another may feel overwhelmed and doubt their ability to cope. Not all stress is inherently harmful. While extreme stress can lead to detrimental outcomes, moderate or low levels may be beneficial. Research indicates that moderate stress enhances awareness of external stimuli, threats or opportunities and often serves a motivational function (Lavreysen *et al.*, 2025). Some experts assert that employees perform their most fulfilling work under conditions of mild stress. Indeed, stress can be essential for psychological growth, creativity, and mastering new skills, such as learning to drive, play the piano, or operate machinery.

This study focuses on occupational stress and its consequences on burnout among high-risk healthcare practitioners. Occupational stress significantly contributes to premature mortality globally and is closely associated with lifestyle factors that can be modified to reduce risk. Consequently, psychologists increasingly engage with individuals identified as high-risk for stress whether through formal preventive programmes or informally through interactions with general practitioners and therapists.

Burnout was first described by Freudenberg (1974) as a syndrome of persistent emotional exhaustion, physical fatigue, disengagement from work, dehumanisation of service recipients, and reduced job performance. Initially observed among personnel in persistently demanding service roles, burnout has since been acknowledged as a significant risk in human services professions. More recently, a global systematic review estimated that over one-third (approximately 39%) of public health workers experience burnout (Nagarajan *et al.*, 2024), highlighting its widespread impact. The World Health Organization defines occupational burnout as a work-related phenomenon resulting from chronic workplace stress that has not been successfully managed, characterised by exhaustion, mental distance or cynicism toward one's job, and reduced professional efficacy (WHO, cited in Nagarajan *et al.*, 2024). This aligns with the three-dimensional model of burnout, emotional exhaustion, depersonalisation (or mental distancing), and diminished personal accomplishment first conceptualised by Maslach and Jackson (1986) and widely used in research and practice. Burnout develops gradually, in contrast to acute stressors like bereavement. It emerges when sustained demands outpace available rewards or resources, leading to fatigue and reduced effectiveness over time. This slow accumulation mirrors the progression of burnout seen in healthcare settings (Houchens *et al.*, 2025). In a national survey of U.S. internal medicine physicians, approximately 9.8% experienced extreme burnout across all three Maslach Burnout Inventory dimensions. High workload and low autonomy significantly increased burnout risk, while empowering supervision, organisational support, mindful awareness, and a strong sense of purpose served as protective factors (Houchens *et al.*, 2025). A significant number of employees are susceptible, especially as the employment landscape evolves due to industrial downsizing, corporate acquisitions and mergers, and extended working hours. Burnout induces both physiological and behavioural alterations, occasionally resulting in substance abuse. At-risk professionals encompass physicians, nurses, social workers, dentists, oncology and AIDS care providers, emergency service personnel, mental health practitioners, and speech and language pathologists, among others. Timely recognition of this emotional decline is essential to avert the depersonalisation of the provider-patient connection. Burnout is an occupational ailment of healthcare professionals that must be identified promptly and addressed (Nagarajan, Ramachandran, Dilipkumar, and Kaur, 2024).

Methods

Design : This study employed an ex-post facto design, wherein the investigator conducted empirical inquiry without direct control over the independent variables, as their occurrence preceded the study. The independent variables included two measures of occupational stress psychological health and anxiety and job tenure, categorised into three levels: (1) 1–5 years, (2) 6–15 years, and (3) 16 years and above. The dependent variable was job burnout, comprising three dimensions: emotional exhaustion, depersonalisation, and personal accomplishment. Factorial correlation and t-tests for independent group design were employed to test the hypotheses. The study comprised 160 high-risk healthcare providers from four designated units at the University College Hospital, Ibadan: (1) Theatre/Intensive Care Unit (ICU), (2) Accident and Emergency (A&E), (3) Oncology, and (4) Dentistry. The sample comprised 60 males and 100 females. Among these, there were 83 medical doctors and 77 nursing staff members. Additionally, 112 individuals were married, 47 were single, and 1 was divorced. The frequency distribution for the four units is as follows: Theatre/ICU had 45 respondents, A&E had 45, Oncology had 30, and Dentistry had 40. A total of 50 individuals possess 1 to 5 years of experience, 70 individuals have 6 to 15 years, and 40 individuals have 16 years or more. The subjects who participated in the study were aged between 23 and 55 years. $M = 35.38$, $SD = 7.52$.

Instruments: The study employed a questionnaire survey method. The instrument consists of four sections. Section A collected demographic and personal information, including sex, age, job type, marital status, length of service, and educational qualifications. Sections B and C assess occupational stress levels. The instruments utilised included: (1) the General Health Questionnaire (GHQ), created by Goldberg in 1982. The current study reported a split-half reliability of 0.72 for the GHQ and a Spearman-Brown coefficient of 0.56 (2). The State-Trait Anxiety Inventory (STAI) was created by Spielberger, Gorsuch, and Lushene in 1970. The validation study showed that the STAI had a split-half reliability of 0.82 and a Cronbach's alpha of 0.85. Section D assesses job burnout. The instrument employed was the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson in 1981 and 1986. The overall MBI scale yielded a Cronbach's alpha of 0.75.

Results

Table 1

Independent Samples t-Test Comparing Male and Female Healthcare Providers on Job Burnout Dimensions

Dimension	Sex	n	M	SD	t	df	p
Exhaustion	Male	60	20.95	6.18	0.49	158	.627
	Female	100	20.42	6.85			
Depersonalization	Male	60	9.43	4.16	-0.65	158	.516
	Female	100	9.95	5.20			
Accomplishment	Male	60	32.05	3.18	-0.46	158	.646
	Female	100	32.35	4.44			
Burnout (Total)	Male	60	62.43	8.89	-0.18	158	.857
	Female	100	62.72	10.17			

Note. M = Mean; SD = Standard Deviation; n = sample size.

Source: Computed using SPSS.

Table 2

Independent Samples t-Test Comparing Nurses and Other Healthcare Providers on Occupational Stress and Job Burnout Dimensions

Variable	Group	n	M	SD	t	df	p
Psychological Health	Others	83	21.98	2.69	1.56	158	.121
	Nursing	77	21.19	3.68			
Anxiety	Others	83	36.72	7.41	-0.63	158	.531
	Nursing	77	37.51	8.56			
Exhaustion	Others	83	20.71	6.15	0.18	158	.857
	Nursing	77	20.51	7.08			
Depersonalization	Others	83	9.86	4.35	0.30	158	.762
	Nursing	77	9.63	5.32			
Accomplishment	Others	83	31.02	3.96	-4.18	158	.000*
	Nursing	77	33.54	3.64			
Burnout (Total)	Others	83	61.60	8.61	-1.37	158	.172
	Nursing	77	63.70	10.72			

Note. M = Mean; SD = Standard Deviation; n = sample size. $p < .05$.

Source: Computed using SPSS.

Table 3

Correlation Matrix for Occupational Stress and Job Burnout Dimensions

Variable	1	2	3	4	5	6
1. Psyhealth	—					
2. Anxiety	-.46**	—				
3. Exhaustion	-.34**	.56**	—			
4. Depersonalization	-.54**	.55**	.56**	—		
5. Accomplishment	-.01	-.23**	-.24**	-.30**	—	
6. Burnout	-.51**	.56**	.86**	.75**	.10	—

Note. N = 160.

Correlation is significant at the .05 level (1-tailed). *Correlation is significant at the .01 level (1-tailed).

Source: Computed using SPSS.

Table 4

One-Way ANOVA Results for Occupational Stress by Job Tenure

Variable	Source	SS	df	MS	F	p
Psyhealth	Between Groups	72.61	2	36.30	3.60	.030*
	Within Groups	1581.59	157	10.07		
	Total	1654.45	159			
Anxiety	Between Groups	551.45	2	275.73	4.53	.012*
	Within Groups	9561.74	157	60.90		
	Total	10113.19	159			

Note. SS = Sum of Squares; MS = Mean Square. $p < .05$. Source: Computed using SPSS.

Table 4(b)

Post Hoc Scheffé Test Comparing Job Tenure Groups on Psychological Health and Anxiety

Dependent Variable	Group (Job Tenure)	n	M	1 vs 2	1 vs 3	2 vs 3
Psyhealth	1. 1–5 years	50	21.90	1.01	-0.60	-1.61*
	2. 6–15 years	70	20.89			
	3. 16+ years	40	22.50			
Anxiety	1. 1–5 years	50	36.32	-2.77	1.70	4.46*
	2. 6–15 years	70	39.09			
	3. 16+ years	40	34.63			

Note. M = Mean; $p < .05$. Source: Computed using SPSS.

Table 5

Post Hoc Scheffé Test Comparing Dentists and Other Healthcare Providers on Emotional Exhaustion and Depersonalization

Dependent Variable	Group	n	M	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
Exhaustion	1. Theatre/ICU	45	21.44	-0.24	-1.42	4.64*	1.17	4.89*	6.06*
	2. A&E	45	21.69						
	3. Oncology	30	22.87						
	4. Dentists	40	16.80						
Depersonalization	1. Theatre/ICU	45	9.11	-1.53	-2.76	1.21	-1.22	2.74	-3.96*
	2. A&E	45	10.64						
	3. Oncology	30	11.87						
	4. Dentists	40	7.90						

Note. M = Mean; n = sample size. $p < .05$.

Source: Computed using SPSS.

The results shown in Table 1 did not support the first hypothesis, which predicted that female healthcare providers would experience significantly higher levels of job burnout than male healthcare providers on dependent measures of job burnout: emotional exhaustion ($t, 158 = 0.49, p > .05$; depersonalisation ($t, 158 = -0.65, p > .05$); and personal accomplishment ($t, 158 = -0.46, p > .05$).

The second and third hypotheses, which posited that nurses would experience higher levels of occupational stress and burnout than other categories of healthcare professionals, was only supported on the personal accomplishment subscale. As indicated in Tables 2 & 3 the results of occupational stress dimensions of psychological health ($t, 158 = 1.56, p > .05$) and anxiety ($t, 158 = -0.63, p > .05$) showed no significant effect. Similarly, Job burnout dimension of emotional exhaustion ($t, 158 = 0.18, p > .05$), depersonalisation ($t, 158 = 0.30, p > .05$), were not significant except on diminished personal accomplishment ($t, 158 = -4.18, p < .05$). Table 4 shows limited support for the fourth hypothesis, which predicted a significant positive correlation between job burnout dependent measures of emotional exhaustion and personal accomplishment ($r = -0.24, p < .01$). The result showed a significant negative correlation. The results presented in Table 4 supported the fifth hypothesis, which posited that healthcare personnel with more years of service would experience reduced occupational stress; psychological health ($f(2,157) = 3.60, p < .05$) and anxiety ($f(2,157) = 4.53, p < .05$) were significant.

The sixth hypothesis, which predicted a significant difference between dentists and other healthcare providers on job burnout measures of emotional exhaustion and depersonalisation, was fully supported, as shown in table 5, $M = 16.80$ for emotional exhaustion and $M = 7.90$ for depersonalisation.

Discussion : The study's aim was to examine the influence of occupational stress, job tenure, and job burnout among high-risk healthcare providers in four units at the University College Hospital in Ibadan. According to the available data, there was no significant sex difference among high-risk healthcare providers in job-burnout-related measures of emotional exhaustion, depersonalisation, and personal accomplishment. ($t(158) = 0.49, p > .05$); ($t(158) = -0.65, p > .05$); and ($t(158) = -0.46, p > .05$). Nurses did not experience higher occupational stress than other types of healthcare providers, as indicated by the psychological health measure ($t(158) = 1.56, p > .05$) and the anxiety measure ($t(158) = -0.63, p > .05$). However, nurses reported a substantial difference on the personal accomplishment subscale. ($t, 158 = -4.18, p < .05$, whereas there was no significant difference in the two other burnout components of emotional exhaustion and depersonalisation [$t(158) = 0.18, p > .05$, and ($t, 158) = 0.30, p > .05$]. There was an inverse correlation between emotional exhaustion and the personal accomplishment subscales. The study found a negative correlation ($r = -0.24, p < .01$) between healthcare personnel' emotional exhaustion and their personal accomplishment. This implies that the more emotional exhaustion experienced by healthcare professionals the less personal accomplishment. Previous research by López-Núñez *et al.* (2020) on the relationship between exhaustion and personal accomplishment revealed that the two dimensions may have little direct impact on one another, but both emerge when responding to characteristics of an improvised organisational setting. The two occupational stress indices of psychological health and anxiety had a strong correlation with job burnout ($r = -0.51, p < .01$; $r = .56, p < .01$). This aligns with more recent findings (Chen *et al.*, 2025; Rossi *et al.*, 2024). However, Jackson,

Schwab, and Schuler's (1986) reported limited longitudinal study of antecedents and consequences of burnout effects in 249 instructors has been superseded by longitudinal or larger-scale recent research (Arvidsson *et al.*, 2019).

A one-way analysis of variance (ANOVA) revealed that job tenure has a direct impact on occupational stress. Health care providers with more experience reported lower occupational stress ($f(2,157) = 3.60, p < .05$) and anxiety levels ($f(2,157) = 4.53, p < .05$). A post-hoc study utilising the Scheffe test for group comparisons of psychological health and anxiety on job tenure among healthcare professionals revealed that the significant difference occurred among those with 6-15 years of service. ($M = 20.8 = -1.61$). The same substantial difference in anxiety was observed among ages 6 to 15 years ($M = 39.09 = 4.46$). Finally, dentists scored significantly higher than other healthcare practitioners on the job burnout subscales of emotional exhaustion ($M = 16.80$) and depersonalisation. ($M = 7.90$). The findings also supported the work of Freeman R, Main JR, and Burke FJ (1998), and recently Milder *et al.* (2021) demonstrated that dentistry was highly susceptible to occupational stress and burnout, particularly in oral pathology and oral & maxillofacial surgery units.

Based on the findings of this study, it is recommended that those in charge of developing health care policies understand that high-risk healthcare providers may experience job burnout as a result of occupational stress and that efforts be made to improve working conditions and the environment in which they operate. Work schedules and staff/patient relationships could be made less stressful and draining for new employees by providing regular training sessions on how to successfully cope with difficult situations.

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