



Healthcare professionals' knowledge of job stress, perceived signs and symptoms, and coping strategies: A cross-sectional study

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Abstract

Context: Prolonged work hours with associated sleep deprivation through night-shifts, uncontrolled schedules, and high job demands have been adjudged major sources of job stress among healthcare professionals, thus affecting workers' mental and physical health. This study determined healthcare professionals' knowledge of job stress, perceived symptoms, and coping strategies in Cross River State, Nigeria.

Materials and Methods: This was a descriptive cross-sectional survey that employed 30-item semi-structured questionnaire to elicit information from 422 healthcare professionals selected using simple-random-sampling technique across 21 secondary and primary healthcare facilities in Central Senatorial District of Cross River State, Nigeria. Data were analyzed using Statistical Package for Social Sciences (SPSS) software (version 20.0). Quantitative data were summarized as mean +/-standard deviation while categorical data were summarized as frequencies and percentages. Pearson-Chi-square test was used to test for association between categorical variables at 5% level of significance (p -value < 0.05).

Results: Majority 278(66.0%) were females; 215(50.9%) were aged between 18 and 30 years; 235(55.7%) had worked for 1-5 years. Less than half, 184(43.7%), had good knowledge of job stress (mean knowledge score was 14.0 ± 5.1). Most 261(61.8%) perceived their symptoms of job stress to be severe; only 145(22.9%) used approved work-free days as coping strategy. Association between knowledge of job stress and coping strategies ($p=0.001$) and perceived stress symptoms and coping strategies ($p=0.001$) were significant.

Conclusion: Knowledge of job stress was good; symptoms of job stress was severe, and adoption of days-off was the main coping strategy. Hence, public health education intervention on health impact of job stress and stress reduction strategies is strongly advocated and recommended.

Keywords: Job stress, healthcare professionals, knowledge, perceived symptoms, coping strategies.

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Introduction

Health care professionals are often subjected to prolonged work hours, prolonged sleep deprivation through night shifts, uncontrolled schedules, high job demands, and inadequate personal time, which constitutes job stress. This may affect workers' mental health. Overload occurs when an individual simply has more work (patients) than he or she can

handle. Studies showed that the overload can either be quantitative (the person has too many tasks to perform but too little time to perform them) or qualitative (the person may believe he or she lacks the ability to do the job)^{1&2}. Primarily, the major source of stress, also known as the causes of stress (or stressors), is life events². The primary factors that contribute to workplace stress are low salaries, excessive workloads, limited opportunities for growth and advancement, unrealistic job expectations, job insecurity, and a lack of participation in decision-making³. Such factors also include understaffing, a lack of equipment or the presence of obsolete equipment, and a poor work environment in countries with a lower level of economic development⁴. A cross-sectional study among fifty healthcare providers in a Ugandan hospital established that non-regular and unsatisfactory chain of communication (62%), longer working hours (19.4%), inadequate work materials (17.7%), high patients to healthcare providers' ratio (14.8%), and uncooperative workmates (13.3%) were the major sources of stress at work⁵.

A study on stress perception among nurses observed that over 80% of healthcare providers had good knowledge and were able to define stress as: accumulation of unresolved grievances manifested by physical symptoms, internal and external force perceived to be threatening, and emotional state of despair aggravated by strenuous work which may result in mental and physical disorders⁶. The prominent concepts from the definitions were: psycho social factors, psycho somatic syndrome, tension, disappointment, inability to adapt, inability to cope, strain and stressors⁶. In another study in 2018, the knowledge of healthcare professionals regarding job stress was found to be 62%⁷. What constituted what stress at workplace implies were: (i) being too tired due to working beyond the expected time which is supposed to be a maximum of 9 hours, (ii) being unhappy due to absence of basic medical facilities, (iii) being unsatisfied resulting from unpaid salaries, and (iv) persistent migraine, depression and anxiety in healthcare professionals⁷. To determine job satisfaction, respondents had good knowledge of stress and sources of stress in another study conducted in 2018⁸. Temesgen et al. documented that respondents

viewed job stress to be the discomfort and burnout faced by workers in the course of providing healthcare to patients⁸. Workers understand job stress to be the type of stress that evolves from the place of work in the course of executing duties, the pains of working in an uncomfortable environment where the necessary facilities are not provided for workers to perform optimally, and the stress that arises due to delay in staff promotion/payment of salaries⁹. Mundongo et al. found that more than 60% of respondents had good knowledge of what causes stress in the workplace, as this percentage of respondents reported that their major source of stress at work was work overload⁹. Part of the strategies used to cope with occupational stress included motivation by looking forward to going home at the end of the day, having social activities, hobbies, and interests¹⁰.

Primarily, stress may manifest through several domains. Physical signs can include headaches and migraines, while emotional reactions often involve irritability, difficulty focusing, and shifts in behaviour. Psychological expressions such as anxiety, low mood, or heightened reactivity are also common, alongside physiological changes such as elevated blood pressure, weakened immune function, increased cardiovascular risk, infertility, and accelerated biological ageing⁴. When healthcare workers are unable to manage hospital-related stressors, they may begin to display these symptoms, reflecting disruptions in their well-being⁴. Such manifestations may also include cognitive problems (poor memory, reduced concentration, impaired judgment, persistent worry, or racing thoughts), emotional disturbances (heightened mood swings, agitation, difficulty relaxing, feelings of isolation, or depressive symptoms), physical complaints (pain, gastrointestinal problems, nausea, dizziness, palpitations, reduced libido, or recurrent infections), and behavioural changes (altered eating or sleeping patterns, withdrawal, procrastination, or increased use of alcohol, cigarettes, or drugs, as well as nervous habits)^{2&4}. A 2018 study also highlighted confusion, fatigue, exhaustion, headaches, anxiety, depression, palpitations, and thoughts of quitting as examples of stress-related symptoms⁶.

Researchers have consistently shown that individuals who smoke or drink tend to increase

their use of these substances during stressful periods¹¹. Staff exposed to excessive stress may also exhibit behavioural issues, including a higher likelihood of accidents, aggression, or appetite disturbances¹². Psychological consequences often affect mental health, and people experiencing substantial work-related stress may struggle with depressed mood or sleep disturbances¹³. Stress can also strain family relationships and contribute to difficulties in sexual functioning¹⁴. Furthermore, strong links have been reported between chronic stress and cardiovascular diseases such as heart disease and stroke¹¹. Additional common health problems related to stress include headaches, musculoskeletal pain, peptic ulcers, gastrointestinal disorders, and dermatologic conditions¹³. Stress may also trigger forms of withdrawal behaviour¹⁵. For organizations, absenteeism and turnover are the most widely observed outcomes, as workers experiencing intense stress may call in sick more frequently or consider leaving their jobs¹⁵. Psychological withdrawal may also occur when employees become disengaged from patients, their organization, or their work responsibilities². In some cases, stress can contribute to violent behaviour among employees¹⁶.

Burnout, another well-recognized consequence of chronic stress, carries major implications for healthcare personnel, health institutions, and patient care¹⁷. It often arises from sustained pressure, excessive workload, emotional fatigue, and feelings of being overwhelmed¹⁸. As burnout intensifies, individuals may lose confidence, withdraw psychologically, and demonstrate reduced productivity, sometimes reflected as presenteeism². Historically, burnout rates have ranged widely, from about 10% to 70% among nurses and 30% to 50% among physicians, nurse practitioners, and physician assistants¹⁹. A large study by the Mayo Clinic and the American Medical Association in 2015 reported that more than half of physicians in the United States exhibited at least one burnout symptom, marking a 9% rise compared with findings from a similar study conducted three years earlier¹⁹.

The biological mechanism underlying stress involves intricate communication between neural pathways and various body systems²⁰. Randall described the general stress response as involving

several physiological adjustments, including increased metabolic activity (such as rapid heart rate and breathing), elevated blood pressure, altered digestive function, reduced protein synthesis, heightened cholesterol and fatty acids in circulation, accelerated blood coagulation, activation of immune and allergic responses, localized inflammatory reactions (such as redness, heat, swelling, and pain), increased blood glucose, and higher gastric acid secretion—changes commonly associated with prolonged or chronic stress²⁰.

In a recent study exploring how respondents cope with stress and stressors in a recent study, most healthcare providers disclosed that they used various strategies ranging from rest, prayer, sleep, talking with someone, exercises, watching television, reading novels, crying, taking sleep tablets, and self-reward (new clothes, doing facials/visiting relatives)⁶. The administration ought to create an environment to reduce/prevent job stress on workers, such as prioritization of activities, including better time management¹⁸. It is affirmed that healthcare providers use defence mechanisms such as avoidance, denial and substance abuse (80% disclosed that they smoke, while 10% resort to alcohol) as stress coping strategies, and this was evidenced by increased turnover⁶. Management techniques adopted in some healthcare facilities include role analysis, role identification, career counselling services, leisure and recreational facilities, motivating with monetary incentives, employee assistance programme (EAP), and workshops on stress and strain¹⁷. It is possible that dealing with the root cause of stress would motivate healthcare professionals to improve service delivery and the relationship with communities at large²¹. Dealing with resources and supplies will not only satisfy healthcare professionals, but also improve quality of services; it will enhance the accuracy of results and client diagnosis as well as reduce medical errors²². Interventions that are facility-based are most effective, and sometimes a simple saying a “No” to ad hoc duties when exhausted is an option and a stress coping strategy². It has been the observation of the authors that healthcare workers in the study area find it challenging to manage their job stress, and to the best of the authors knowledge, no such studies was done in the study area and this was the basis of

instigating this study. However, this study determined the knowledge level of healthcare professionals on perceived signs/symptoms of stress and coping strategies in Cross River State, Nigeria. The aim of this study was to assess job stress, job satisfaction, and coping strategies among healthcare professionals in the Central Senatorial District of Cross River State, Nigeria.

Materials and methods

Study Design

A descriptive cross-sectional survey design was adopted, employing quantitative methods to obtain data from healthcare professionals across selected health facilities.

Study area

This study was conducted in the Central Senatorial District of Cross River State selected out of the three senatorial Districts in the State. Central Senatorial District is located midway between the Southern and Northern Senatorial Districts of the State, and bounded in the north by Ogoja Local Government Area in the Northern Senatorial District and in the south by Biase Local Government Area in the Southern Senatorial District. The Republic of Cameroon and Ebonyi State form the Eastern and Western boundaries, respectively. It occupies an area of 2005 square kilometres and stretches between longitude 7.00 to 858E and Latitude 5.00 to 5.29N, with a projected 2025 population of 1,163,903 (590,527 males and 573,376 females). According to the 2025 Cross River State Ministry of Health records, there were 180 healthcare facilities located within the Central Senatorial District, comprising 6 government secondary health facilities, 41 private health facilities, and 133 Primary Healthcare Centres.

Study population

The study population comprised healthcare professionals at primary, secondary and private facilities in the study area, including Medical Laboratory Scientists, Radiographers/Radiologists, Nurses, Pharmacists, Medical Doctors, CHEWs and others

Inclusion and Exclusion criteria

Inclusion criteria:

- Healthcare professionals who were on duty during data collection.
- Clinicians and allied health workers who provided consent to participate.

Exclusion criteria:

- Healthcare professionals who were absent from duty or on leave at the time of the study as well as healthcare workers who were present at work but too ill to participate in the study.

Sample size determination

The sample size was calculated using Cochran's (1977) formula as follows:

$$n = Z^2 pq/d^2$$

where:

n = sample size.

Z = confidence interval of 95% which is equivalent to a confidence Coefficient of 1.96.

p = prevalence of job stress among health care professionals - 55% (Slovenia and Greece)29-30.

q = (1-p). Probability of the event non-occurrence (1-0.55=0.45).

d = acceptable margin of error (5%=0.05)

Substituting the above values, $n = 1.962 \times 0.55 \times 0.45 / 0.052 = 380$

Accounting for 11% non-response rate, the sample size became 422.

Sampling procedure

A multi-stage sampling technique was employed. The detailed flowchart is presented in **Supplementary Material 1**.

Stage I: The Central Senatorial District was purposively selected because such a study had not previously been conducted there.

Stage II: Three LGAs (Abi, Ikom, and Obubra) were selected using simple random sampling method by balloting from the six LGAs in the district.

Stage III: Health facilities were selected through simple random sampling technique. Within each LGA, names of all facilities were written on slips of paper and separated into private, secondary, and primary categories. From each LGA, three private, one secondary, and three primary facilities were

selected by simple random sampling technique, yielding a total of 21 facilities (nine private, three secondary, and nine primary).

Stage IV: Five departments—Nursing, Pharmacy, Medicine, Laboratory, and Radiography/Radiology—were purposively selected from each facility to ensure inclusion of direct patient care providers.

Stage V: Participants were selected using the probability proportionate to size (PPS) method. A total of 47 healthcare professionals were chosen from each of the three facility categories per LGA, amounting to 141 per LGA and 422 overall.

Data Collection Process

Data were collected using a semi-structured, self-administered questionnaire developed by the researchers in line with the study objectives. The instrument consisted of three sections (A, B, and C). Section A captured the socio-demographic characteristics of healthcare professionals. Section B assessed healthcare professionals' knowledge of the perceived signs and symptoms of job stress, including organizational, emotional, and workload-related pressures such as remuneration, staffing adequacy, workload, supervision quality, communication, availability of equipment, interpersonal conflicts, and extended working hours. Respondents rated each item on a 5-point Likert scale (strongly agree to strongly disagree), enabling them to indicate the extent to which each factor contributed to their stress. They also provided a global assessment of their overall stress level (mild, moderate, or high), which served as the primary outcome measure for stress categorization. Section C elicited information on coping strategies for stress reduction among healthcare professionals. Job satisfaction was measured using items that evaluated motivation, supervisory support, workplace relationships, and general attitudes toward the job. Respondents also answered questions on turnover intention and emotional strain. A single-item global rating (not satisfied, moderately satisfied, or highly satisfied) served as the primary job satisfaction outcome variable. The questionnaire is provided as Supplementary Material 2 and will be made available on request.

A pre-test involving 42 healthcare professionals (10% of the sample size) was conducted in the

Southern Senatorial District of Cross River State to assess clarity, reliability, and internal consistency of the instrument. Cronbach's alpha coefficients ranged from 0.80 to 0.97, indicating excellent reliability.

To minimize response bias, questionnaires were anonymous. Data collectors received training to emphasize confidentiality and voluntary participation. No names or identifiers were included on the questionnaires, and completed forms were stored securely.

Data Analysis

Each completed questionnaire was manually reviewed to ensure that no information was missing. Data were coded and analysed using Statistical Package for Social Sciences (SPSS) software (version 20.0). Categorical variables were summarized as frequencies and percentages while quantitative variables were summarized as mean and standard deviations. Results were presented in tables and charts. Pearson's Chi-square analysis was performed to determine associations between categorical variables at a 5% level of significance ($p < 0.05$). The healthcare professionals' knowledge of signs and symptoms of stress was calculated by assigning scores to each knowledge response and calculating the mean score, which served as a benchmark for grouping respondents into those with poor, fair, or good knowledge levels. Scores were later summed up to get the total score for each individual. Scores ranging from 0 to 6 represented poor knowledge, scores ranging from 7 to 12 represented fair knowledge, while scores ranging from 13 to 16 represented good knowledge. The minimum recorded score was 0, while the maximum recorded score was 16 out of a possible total of 16.

Ethics approval and consent to participate

Ethical approval was obtained from the Cross River State Research Ethics Committee (CRSMOH/RP/REC/2018/119). A copy of the approval was tendered to the Management of the health facilities where the study was conducted. Informed consent to participate in the study was obtained from participants after a clear explanation of the research purpose. All the study participants were assured of confidentiality and anonymity of their responses. This study was conducted in full

accordance with the ethical principles outlined in the Declaration of Helsinki.

Results

Socio-demographic characteristics of respondents

Most 278(66.0%) were females while 144(34%) were males. Most 215(50.9%) were within the age bracket 18-30years, followed by those within the age bracket 31-40years (40.5%). The mean age of respondents was 31±7.5years. Most 172(40.8%) were Nurses, followed by Medical Laboratory Scientists 68(16.1%) and Community Health Extension Workers 64(15.2%). Pharmacists and Medical Doctors accounted for 63(14.9%) and 43(10.2%), respectively. The majority, 235(55.7%), had job experience of 1-5years, followed by

104(24.6%) who had worked for 6-10years; 65(15.4%) worked in the Outpatient department, while 60(14.2%) worked in the pharmacy and laboratory departments respectively (Table 1).

Healthcare professionals' knowledge of perceived signs and symptoms of job stress

A greater proportion, 410(97.2%), were aware of job stress; 364(86.7%) said job stress can lead to psychological and emotional distress, while 284(67.6%) knew that job stress left unchecked may lead to high blood pressure, obesity and diabetes; 323(76.9%) said excessive stress may result in heart diseases. Most 358(85.2%) said that excessive job stress may lead to disrupted personal relationship; increased depression and suicidal tendencies 345(82.1%); decrease job satisfaction 369(87.9%); poor health and deterioration of general wellbeing 381(90.7%); low productivity 359(85.5%); frequent sickness and absenteeism 374(89.0%); generalized body aches and headaches 384(91.4%); exhaustion 363(86.8%); burnout 342(81.4%); feeling sleepy while on duty 367(87.8%); yawning too many times while on duty 357(85.4%); behaving unprofessionally to patients and colleagues 352(83.8%); and errors at work place 356(84.8%). The mean score was 14.0±5.1 standard deviation (Table 2).

TABLE 1: Socio-demographic characteristics of healthcare professionals

Variables	Frequency (n=422)	Percentage (%)
Gender		
Male	144	34.0
Female	278	66.0
Remove this empty row		
Age (in years)		
18-30	215	50.9
31-40	171	40.5
41-50	31	7.3
51-60	5	1.2
Profession		
Nurses	172	40.8
Medical Doctors	43	10.2
Medical Laboratory Scientists	68	16.1
Pharmacists	63	14.9
Radiographers	12	2.8
Community Health Extension Workers	64	15.2
Work experience		
<1year	36	8.5
1-5years	235	55.7
6-10years	104	24.6
11-15years	24	5.7
16-20years	9	2.1
21-25years	8	1.9
26-30years	4	0.9
31-35years	1	0.2
>36years	1	0.2
Departments respondents currently work in		
Male Medical Ward	37	8.8
Male Surgical Ward	17	4.0
Female Medical Ward	27	6.4
Female Surgical Ward	23	5.5
Maternity Ward	25	5.9
Theatre	18	4.3
Paediatric Ward	15	3.6
Postnatal Ward	14	3.3
Pharmacy	60	14.2
X-Ray Department	12	2.8
Laboratory Department	60	14.2
Community Health Department	49	11.6
Outpatient Department	65	15.4

TABLE 2: Summary of healthcare professionals' knowledge level of job stress

Knowledge level	Range	Frequency	Percent (%)	Mean score
Poor knowledge	0 – 6	106	25.0	
Fair knowledge	7 – 12	132	31.3	
Good knowledge	13 – 16	184	43.7	
Total	16	422	100	14.0±5.1 SD

Coping strategies for stress reduction and stress management among healthcare professionals

The majority, 331(78.4%), responded that staff lounge (breakrooms) was available for staff; however, the majority, 348(82.5%), never used them. Majority 266(63.0%) used approved days off from work to rest as a coping strategy, 238(56.4%) manage their stress by watching television or playing movies/music/games from their cell phone, 168(39.8%) played games whenever they were less busy in the work place, while 233(55.2%) engaged their colleagues in discussions (Figure 1).

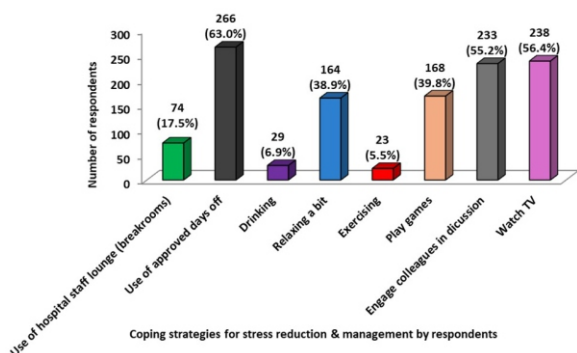


Figure 1: Coping strategies for stress reduction & management by healthcare professionals

TABLE 3: Association between healthcare professionals' knowledge on job stress and coping strategies for stress reduction

Test variables	Poor Knowledge	Fair Knowledge	Good knowledge	Chi-square	P-value
Coping strategies					
Use of hospital lounge (breakrooms)	30 (8.5)	8 (8.5)	34 (5.3)	30.179	<0.001*
Use of approved days off	97 (27.6)	24 (25.8)	145(22.9)		
Drinking water or alcohol	8 (2.3)	2 (2.2)	19 (3.0)		
Relaxing a bit during work hours	10 (2.8)	4 (4.3)	39 (6.2)		
Exercise	5 (1.4)	4 (4.3)	13 (2.1)		
Playing games	81 (23.0)	17 (18.3)	69 (10.9)		
Engaging colleagues in discussion	59 (16.8)	17 (18.3)	155(24.5)		
Watching TV	62 (17.6)	17 (18.3)	159(25.1)		

Figures in parenthesis represent percentages

*Statistical significance based on P-value < 0.05; df = 14.

The coping strategies as contained in Table 3 are multiple responses.

H₀: There is no statistically significant association between healthcare professionals' knowledge of perceived signs/symptoms of job stress and adoption of coping strategies for stress reduction.

The adoption of coping strategies for stress reduction increased with a good understanding of the signs and symptoms of job stress. Of the 184(43.7%) respondents who had good knowledge of job stress, most 159(25.1%) watched TV as a coping strategy, 155(24.5%) engaged colleagues in discussion, while 145(22.9%) used their approved days off to reduce or manage their stress. Analysis using the Chi-square test revealed a statistically significant association between healthcare professionals' knowledge of perceived signs/symptoms of job stress and adoption of coping strategies for stress reduction (P < 0.001; df = 14; Chi-square = 30.179). The null hypothesis was therefore rejected, and it was concluded that there is a statistically significant association between healthcare professionals' knowledge of perceived

signs/symptoms of job stress and adopting coping strategies for stress reduction (Table 3) P < 0.001.

Discussion
Healthcare professionals' knowledge of perceived signs and symptoms of job stress

This study showed that one in every 35 healthcare professionals had never heard of job stress. Respondents who knew what stress is reported that unchecked stress can lead to high blood pressure, obesity, diabetes and heart disease. Thus, corroborating the fact that stress aggravates raised blood pressure, suppresses the immune system, increases the risk of heart attack and stroke, infertility, and speeds up the ageing process⁴. To further support this finding, studies have linked stress to heart disease and stroke, among other illnesses¹¹. The study also indicates that respondents recognized several manifestations of job stress, including exhaustion, generalized body aches, headaches, depression, and thoughts of quitting their jobs. This aligns with the findings of Mmule et al.⁶,

who reported symptoms such as confusion, fatigue, exhaustion, headaches, anxiety, depression, palpitations, and feelings of resignation among workers. Additional studies have similarly shown that prolonged stress can result in headaches, backaches, ulcers, stomach and intestinal disorders, and skin conditions¹³. Therefore, it is essential to highlight the need to strengthen healthcare workers' awareness of stress indicators to support early detection and intervention.

Respondents further acknowledged that excessive job stress decreases job satisfaction, lowers productivity, and leads to frequent sickness and absenteeism. This is consistent with earlier research showing that withdrawal behaviours such as absenteeism and quitting are associated with job stress¹⁵. Feeling sleepy or yawning excessively while on duty was also identified as a sign of stress, which agrees with studies reporting that workers experiencing excessive stress may struggle with either oversleeping or inadequate sleep. To support this, a study in 2016 found that the prevalence of

burnout ranged from 10% to 70% among nurses and 30% to 50% among physicians¹⁹. These insights underscore the importance of identifying functional and behavioural stress symptoms to minimize their negative effects on workforce efficiency.

This study revealed that 25% of healthcare professionals had poor knowledge, 31.3% were found to have fair knowledge, while a larger percentage (43.7%) demonstrated good knowledge of the signs and symptoms of job stress. This is lower than that reported by a 2018 study where over 80% of healthcare professionals had good knowledge of the signs and symptoms of job stress⁶. In line with this is also, a 2018 study that found knowledge among healthcare professionals regarding job stress to be 62% good⁷. Another study in 2018 also found that the knowledge level of healthcare professionals regarding stress stood at 75%⁸. To further support this finding, a 2014 study found that 60% of healthcare workers had good knowledge of job stress⁹. This suggests the need to enhance educational interventions to ensure consistently high knowledge levels among all healthcare professionals.

Coping strategies for stress reduction among healthcare professionals

The findings from this study show that although 78.4% of health facilities had designated areas where healthcare professionals could rest during shift duties, only 17.5% admitted to ever using these areas to reduce job stress during work hours. This means that the availability of staff lounge (breakrooms) for workers does not really translate to utilization by healthcare professionals for stress reduction. This finding aligns with a 2017 study that showed this strategy can reduce stress on workers by 75%^{23,24}. Therefore, encouraging routine use of workplace rest facilities may improve stress management among healthcare workers.

The study also shows that many respondents used approved days off from work as a means of resting, supporting Kurki findings that healthcare providers often rely on days off as a stress-management method^{10,25}. Promoting structured rest periods may enhance recovery and reduce accumulated occupational stress. One out of eighteen (5.5%) managed their stress by exercising, which aligns with the findings of a similar 2016 study that also

discovered workers used exercise as a stress management strategy^{22,26}. This study shows that one in two hundred and eleven (0.5%) smoke as a coping strategy, and one in fifteen (6.9%) resort to drinking to reduce stress. This is corroborated in a study conducted in 2018, which showed that healthcare providers use defence mechanisms such as substance abuse (80% smoke, 10% alcohol) as stress coping strategies^{6,27}. These observations underscore the importance of promoting healthy coping mechanisms while discouraging unhealthy ones.

The study further indicates that some healthcare professionals play games, engage colleagues in discussions, or watch television, movies, or mobile content as coping mechanisms. These coping behaviours align with Koval findings that workers often engage colleagues in discussions as a way of reducing or managing stress^{4,28}. This highlights the importance of integrating social and recreational support strategies into workplace well-being programmes.

Conclusion

Knowledge of job stress was good; symptoms of job stress was severe, and adoption of days-off was the main coping strategy for job stress reduction among respondents with a higher knowledge level. In conclusion, this study highlights a significant gap between the existence of workplace stress-relief resources and their actual utilization by healthcare professionals. Knowledge of stress signs and symptoms is crucial for the effective adoption of coping strategies, which in turn can reduce stress levels and promote well-being. These insights emphasize the need for healthcare managers and policymakers to establish and strengthen facility-based interventions that support staff in recognizing and managing workplace stress, thereby enhancing resilience, productivity, and overall workforce sustainability as recommended.

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Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request. However, the interview guide is available as supplementary material and will be made available on request.

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Contributions

J.J.E. conceived the study. **G.M.E.N.**, **A.E.U.** and **P.A.O.** contributed to the study design. **G.M.E.N.** supervised the study. **J.J.E.**, **O.E.-J.**, **R.I.E.-N.**, **E.A.L.**, and **H.I.O.** collected the data, managed data entry, and assisted in preliminary analysis. **J.J.E.**, **O.E.-J.**, **R.I.E.-N.**, **E.A.L.**, and **H.I.O.** performed the statistical analysis, interpreted the findings, and prepared the results section. **J.J.E.** produced the initial draft. **G.M.E.N.**, **A.E.U.** and **P.A.O.** critically reviewed the manuscript for intellectual content and ensured compliance with journal guidelines. All authors read and approved the final version of the manuscript.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Clinical Trials

Not applicable.

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