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Research Article

Stress Management Practices Among Medical Health Practitioners in Nigeria

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Abstract

Background: The medical profession is inherently stressful due to the high demands of patient care, time constraints, and administrative responsibilities. In Nigeria, additional factors such as inadequate salaries, poor working conditions, and resource limitations exacerbate stress among medical health practitioners. Understanding stressors, management strategies, and their effectiveness is crucial for developing interventions to support healthcare workers.

Objectives: To assess the common stressors, stress management practices and their effectiveness, and the relationship between socio-demographic factors and stress levels among medical health practitioners in Nigeria.

Methods: This descriptive cross-sectional study was conducted among medical health practitioners at NAUTH, Nnewi, south-east Nigeria. A two-stage sampling system was used. Data collection was done using a self-administered semi-structured questionnaire, and data analysis was performed using SPSS (version 23, SPSS, Inc., Chicago, Illinois, USA).

Results: A total of 200 respondents participated in the study, with 134 (67%) males and 66 (33%) females. Participants included house officers/medical officers (16.5%), resident doctors (30.5%), and consultants (53%). The leading stressors identified were high workload (72%), inadequate salaries (62.5%), and lack of resources (61.5%). A significant majority (87.5%) reported high stress levels, while only 12.5% had low stress. Among socio-demographic factors, medical health practitioners aged 59 to 60 years ($p = 0.007$), consultants ($p = 0.014$), and those with 15 to 19 years of experience ($p = 0.043$) exhibited the highest stress levels. The most effective stress management strategies were relaxation (98%), sleep/rest (96%), and taking leave/vacations (95%), while smoking (9.5%), using pills/medications (10.5%), and denial/self-blame (14%) were the least effective.

Conclusion: Medical health practitioners in Nigeria experience high stress levels due to various workplace challenges. Effective stress management practices, such as relaxation and adequate rest, can help mitigate stress. Structural interventions are necessary to improve working conditions, reduce burnout, and enhance overall job satisfaction among doctors.

Keywords: Anxiety; Health Care Workers; Medical Doctors; Mental Health; Psychology

Introduction

The healthcare profession is inherently demanding, with medical practitioners often exposed to high levels of stress due to the critical nature of patient care [1]. In a recent systematic review on the prevalence of psychosocial stress and its risk factors among health-care workers in Nigeria, psychosocial stress was prevalent in 61.97% of cases and the most common risk factors were work overload (67.72%), lack of resources (62.4%), and poor communication (50.37%), while the most frequent health outcome was headache, with neck and back pain, affecting 73.26% of individuals [2]. The high-stress environment in which medical practitioners operate in Nigeria is a growing concern. In Nigeria, the challenges are compounded by factors such as heavy workloads, inadequate resources, and insufficient remuneration [1].

Chronic stress among healthcare workers can lead to burnout, reduced job satisfaction, and a decline in patient care standards. The absence of effective stress management practices exacerbates these issues, yet little is known about the strategies currently employed by Nigerian medical practitioners or their effectiveness [3]. The high prevalence of stress and burnout among physicians, driven by long hours, heavy workloads, and distressing situations, negatively impacts their well-being and productivity [4,5]. In Nigeria, the doctor-to-patient ratio of 1:5000 significantly deviates from WHO recommendations, heightening burnout risks [6]. These

stressors can lead to physical, emotional, and mental exhaustion among doctors, impacting their well-being and the quality of care they provide [5,7]. Additionally, stress-related complications and occupational injuries contribute to millions of deaths globally, with work-related stress particularly prevalent in sub-Saharan Africa [7].

Despite the well-known consequences of stress, there is limited data on how medical practitioners in Nigeria manage stress and the effectiveness of these strategies [8]. Understanding these practices is crucial for developing targeted interventions that can improve the well-being of healthcare workers and, by extension, patient outcomes. Early detection of stress in doctors is crucial to mitigate adverse effects on individuals, families, and patients. This study is aimed at assessing the common stressors, stress management practices and their effectiveness, and the relationship between socio-demographic factors and stress levels among medical health practitioners.

Methods

Study design and settings

This research was conducted at the Nnamdi Azikiwe University Teaching Hospital (NAUTH) in Nnewi, Anambra State, Nigeria. This study adopted a hospital-based descriptive cross-sectional design to assess stress management practices among healthcare workers (doctors). The study included doctors directly engaged in patient care who provided informed consent to participate in the research. Participants were required to be full-time employees of the hospital and have a minimum tenure of six months at the hospital, ensuring exposure to various stress levels during their practice. Doctors who declined consent and those absent at the time of the study were excluded.

Sampling method

A two-stage sampling system was used in this study: First stage: A stratified sampling technique was used. The study respondents were drawn from each cadre of doctors working in the hospital (medical officers, house officers, resident doctors and consultants) aged from 18 years and above into the study and proportionate allocation was done using the numerical strength of each cadre. The formula used to calculate the number of respondents per cadre of doctors was

$$n = \frac{\text{total no of doctors in a cadre}}{\text{total number of doctors in NAUTH}} \; x \; \text{Sample size after attrition is corrected}$$

Medical officers/house officers: 32; resident doctors: 63; and consultants: 105.

Second stage: A proportionate simple random sampling using balloting was used to sample 32 medical officers, house officers, 63 resident doctors and 105 consultants. The balloting was done by folding the papers with 'Yes' or 'No' and the respondents were instructed to pick without replacement. Only respondents who picked 'YES' were administered the questionnaire.

A structured, self-administered, validated and anonymous questionnaire was used for data collection. The questionnaire was designed to meet the objectives of the study with guidance from several similar works already done on the subject and then was subsequently verified by my supervisors. The questionnaire had four sections: Section A covered respondents' socio-demographic data, Section B addressed common stressors among doctors, Section C focused on stress management practices, and Section D assessed their effectiveness.

Outcome measures

The primary outcome measure was level of stress amongst doctors. Stress levels were evaluated using a Likert scale, categorized as high or low stress. A stress score ranging from 0 to 2 indicated a low stress level, while a score of 3 to 5 indicated a high stress level.

Ethical consideration

This study adhered to the highest ethical standards in line with research guidelines for human participants. Ethical approval was obtained from the Ethics Committee of Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi, Nigeria, with ethical approval number of NAUTH/CS/66/VOL.16/VER.3/243/2023/196, ensuring compliance with institutional and national ethical regulations. Participation in the study was entirely voluntary, and only individuals who provided written informed consent were administered the questionnaire. The consent process was conducted with careful consideration for participants' autonomy and understanding. A detailed consent form was provided and explained in simple English to ensure clarity. Participants were given ample opportunity to ask questions and seek clarifications

before signing the consent form. Additionally, they were informed of their right to withdraw from the study at any stage without any consequences or need for justification. Confidentiality and anonymity of responses were strictly maintained throughout the study. Data collected were stored securely, accessible only to authorised researchers, and used solely for the purpose of this study. No identifying information was included in any reports or publications resulting from the research.

Data management

The data collected in this study underwent a structured and systematic management process to ensure accuracy, integrity, and confidentiality. All data were entered, cleaned, and analysed using the Statistical Package for the Social Sciences (SPSS) version 23 (SPSS, Inc., Chicago, Illinois, USA). Before analysis, data were carefully reviewed for completeness, consistency, and any potential errors or outliers, which were addressed accordingly to maintain data reliability. Both descriptive and inferential statistical methods were applied based on the nature of the data and study objectives. Descriptive statistics were used to summarize and present the data in a clear and meaningful way. Numerical variables were reported as means and standard deviations to provide insights into the central tendency and variability of the data. Categorical variables were expressed as proportions and percentages to illustrate distribution patterns across different groups. Inferential statistical tests were conducted where applicable to determine associations, relationships, and potential predictive factors. Statistical significance was set at an appropriate confidence level to ensure robust and valid conclusions, and a p value smaller than 0.05 was considered to indicate a statistically significant result.

Results

The study comprised 200 respondents, with 67% being male and 33% female. Respondents' ages ranged from 18 to over 60 years, with the majority falling between 40-49 years. The baseline socio-demographic characteristics of the respondents included in this study is presented in Table 1. Consultants constituted over half (53%) of the respondents, followed by resident doctors (30.5%) and medical officers/house officers (16.5%). Majority of the respondents (28.58%) were between 40-49 years. About two third 67% were male and 33% were female, 74% were married, more than half 53% are consultants, 16.5% were medical/house officers, 21.5% had practices between 20-24 years.

Regarding duration of practice, respondents ranged from practicing for less than 5 years to over 30 years, with various segments representing different durations. The majority of respondents were married (74%), while 24% were single and 2% widowed.

The occupational stress levels among the respondents is shown in Table 2. The most significant sources of stress included high workload (72% strongly agreed), lack of resources (61.5% strongly agreed), and inadequate staffing (60.5% strongly agreed). Time pressure, sleep deprivation, and distant accommodation also contributed to stress, with over 80% of respondents acknowledging these factors. Additionally, poor salaries and work-family conflict were noted as stressors, with over 60% agreeing that they struggle to meet family demands due to insufficient pay. Occupational hazards like exposure to infections and chemicals were also significant concerns, with over 50% of respondents identifying them as stress factors.

A significant majority of the participants experienced high stress levels, with 87.5% (175/200) reporting high stress, while only 12.5% (25/200) reported low stress levels. Table 3 shows the mean scores of stress management practices among doctors, which presents effectiveness of stress management practices among doctors. Relaxation (98%) and sleep/rest (96%) and take a leave/ vacation (95%) had the highest effectiveness as well as time management, music, emotional support from others, social support, exercise /yoga/meditation, watching movies, reading books/novels, religious observation, optimism, acceptance and carry. However, less effective strategies included yelling, doing nothing, drinking alcohol, and denial/self-blame, with smoking being the least practiced and effective method.

The distribution of the responses to items on stress management practices among respondents is shown in Table 4. The three top stress management practices were relaxation (86.5%), sleep/ rest (85.5%) and take a leave/vacation (85.5%) while the least practiced strategies were smoking (9.5%) use of pills and medications (10.5%) and denial/self-blame (14%).

Table 5 shows the association between socio-demographic and stress level among doctors. As presented in table 5, age, cadre and duration of service had association with work stress, while the rest had no association with work stress. Doctors who were

aged between 59 to 60 years had the highest stress level (40%), Consultants were the most stressed (80%), while doctors who had worked between 15 years and 19 years were more stressed (32%) when compared with their counterparts.

Table 1: Social-demographic Characteristics of Respondents.

Variables	Percentage (%)	Frequency (n = 200)
Age		
Less than 30 years	17	34
30-39 years	32	64
40-49 years	28.5	57
50-59 years	17.5	35
Greater than 60 years	5	10
Gender		
Male	67	134
Female	33	66
Cadre		
Medical Officer/House Officer	16.5	33
Resident Doctor	30.5	61
Consultant	53	106
Duration		
Less than 5 years	17.5	35
5-9 years	15	30
10-14 years	25	50
15-19 years	21.5	43
20-24 years	4	8
25-29 years	10.5	21
Greater than 30 years	6.5	13
Marital Status		
Single	24	48
Married	74	148
Widowed	2	4

Table 2: Occupational Stress among Respondents.

Variables (N = 200)	SA	A	N	D	SD
Work Demands	.				
I am worried about receiving complaints from patients or their relatives for not meeting their demands.	44(22)	82(41)	43(21.5)	17(8.5)	14(7)
Coping with difficult uncooperative patients is a source of stress.	75(37.5)	94(47)	10(5)	12(6)	9(4.5)
I have to maintain professional units other than my own	41(20.5)	61(30.5)	58(29)	27(13.5)	13(6.5)
High workload is a source of stress	144(72)	45(22.5)	6(3)	0(0)	5(2.5)
Time pressure	105(52.5)	77(38.5)	10(5)	4(2)	4(2)

Sleep deprivation	89(44.5)	76(38)	19(9.5)	12(6)	4(2)
Distant accommodation	77(38.5)	74(37)	29(14.5)	14(7)	6(3)
Running behind schedule	80(40)	77(38.5)	26(13)	8(4)	9(4.5)
Work-Family Conflict	.				.
Insufficient Support from Co-workers or Caregivers	46(23)	86(43)	38(19)	19(9.5)	11(5.5)
The amount of time my job occupies makes it difficult for me to fulfill family responsibilities.	48(24)	79(39.5)	42(21)	22(11)	9(4.5)
The burden of work makes it difficult for me to undertake my personal chores and/or engage in hobbies	55(27.5)	92(46)	25(12.5)	18(9)	10(5)
Team members do not appear to help in a timely manner under urgent circumstances	37(18.5)	43(21.5)	57(28.5)	52(26)	11(5.5)
Poor salary that cannot meet family demand	125(62.5)	42(21)	18(9)	9(4.5)	6(3)
Workplace Violence and Bullying	.				.
Physical abuse such as hitting, kicking, pushing, pinching, pulling, and dragging.	52(26)	50(25)	42(21)	33(16.5)	23(11.5)
Organizational Issues	57(28.6)	66(33.2)	48(24.1)	13(6.5)	15(7.5)
Not achieving a promotion (e.g., level 1 or 2) within the expected period.	37(18.5)	79(39.5)	49(24.5)	20(10)	15(7.5)
Lack of resources to work with.	123(61.5)	61(30.5)	12(6)	2(1)	2(1)
Job insecurity	82(41)	44(22)	45(22.5)	19(9.5)	10(5)
Inadequate staffing levels	121(60.5)	67(33.5)	8(4)	1(0.5)	3(1.5)
Lack of recreational facilities	97(48.5)	67(33.5)	30(15)	4(2)	2(1)
Occupational Hazards	.				.
Exposure to chemicals such as chemotherapy drugs, alcohol.	58(29)	60(30)	47(23.5)	17(8.5)	18(9)
Exposure to radiation or strong light such as X-ray, ultraviolet light, and lasers.	57(28.5)	57(28.5)	46(23)	19(9.5)	21(10.5)
Exposure to infections and hazardous substances.	102(51)	71(35.5)	14(7)	6(3)	7(3.5)

Table 3: Mean scores of stress management practices among doctors (n = 200).

	Absolute score Mean ± SD	**Relative score (%) Mean ± SD**
Acceptance and carry on	2.39 ± 0.81	79.5 ± 19.45
Social support	2.67 ± 0.61	89.17 ± 14.78
Time management	2.79 ± 0.53	92.83 ± 12.89
Religious observation	2.29 ± 0.72	76.33 ± 17.23
Optimism	2.53 ± 0.65	84.5 ± 15.71
Emotional support from others	2.78 ± 0.49	92.67 ± 11.79
Self-distraction (mental disengagement)	2.66 ± 0.63	88.5 ± 15.1
Exercise/yoga/meditation	2.57 ± 0.66	85.5 ± 16.02
Sleep/rest	2.82 ± 0.46	94.00 ± 11.19
Nothing	1.74 ± 0.75	58.00 ± 17.99

Relaxation	2.81 ± 0.5	93.83 ± 12.01
Denial/self-blame	1.56 ± 0.72	52.00 ± 17.41
Drink alcohol	1.62 ± 0.75	53.83 ± 18.06
Music	2.22 ± 0.77	74 ± 18.45
Smoking	1.33 ± 0.64	44.17 ± 15.35
Watching movies	2.6 ± 0.66	86.67 ± 15.91
Reading books/novels	2.52 ± 0.71	83.83 ± 17.13
Take a leave/vacation	2.82 ± 0.46	94.00 ± 11.19
Use of pills and medications	1.500.68	50.00 ± 16.27
Yell/talk it out	1.99 ± 0.79	66.50 ± 18.97

Table 4: The distribution of the responses to items on stress management practices among respondents.

Variables	**Yes N (%)**	**No N (%)**
Acceptance and carry on	102(51.0)	98(49.2)
Sleep/Rest	192(96.0)	8(4.0)
Social support	175(87.5)	25(12.6)
Relaxation	196(98.0)	4(2.0)
Time management	181(90.5)	19(9.5)
Denial/self-blame	23(11.5)	177(88.9)
Drink alcohol	40(20.0)	160(80.4)
Religious observation	129(64.5)	71(35.7)
Optimism	139(69.5)	61(30.7)
Music	180(90.0)	20(10.1)
Emotional support from others	180(90.0)	20(10.1)
Self-distraction (mental disengagement)	104(52.0)	96(48.2)
Exercise/Yoga/Meditation	165(82.5)	35(17.6)
Smoking	21(10.5)	179(89.9)
Watching movies	174(87.0)	26(13.1)
Reading books/novels	150(75.0)	50(25.1)
Take a leave/vacation	190(95.0)	10(5.0)
Use of pills and medications	40(20.0)	160(80.4)
Yell/Talk it out	59(29.5)	141(70.9)
Doing Nothing	33(16.5)	167(83.9)

Table 5: Association between socio-demographic and stress level among doctors.

* = significant p-value < 0.05

Socio-Demographic Variables	WORK STRESS (%)		X^2-Value	P-Value
	High Stress level	Low Stress level		
Age Category				
Less than 30 years	1 (4.0)	33 (18.9)		
30-39 years	4 (16.0)	61 (34.9)		
40-49 years	9 (36.0)	47 (26.9)	14.21	0.007*
50-59 years	10 (40.0)	25 (14.3)		
Greater than 60 years	1 (4.0)	9 (5.1)		
Gender				
Male	8 (32.0)	58 (33.1)		
Female	17 (68.0)	117 (66.9)	0.01	0.909
Cadre/Level				
Medical Officer/House Officers	1 (4.0)	32 (18.3)		
Resident Doctors	4 (16.0)	57 (32.6)	8.61	0.014*
Consultants	20 (80.0)	86 (49.1)		
Duration of Practice				
Less than 5 years	1 (4.0)	34 (19.4)		
5-9 years	1 (4.0)	29 (16.6)		
10-14 years	5 (20.0)	44 (25.1)	13.02	0.043*
15-19 years	8 (32.0)	36 (20.6)		
20-24 years	2 (8.0)	6 (3.4)		
25-29 years	6 (24.0)	15 (8.6)		
Greater than 30 years	6 (24.0)	7 (3.9)		
MARITAL STATUS				
Single	4 (16.0)	44 (25.1)		
Married	21 (84.0)	127 (72.6)	1.72	0.423
Widowed	0 (0.0)	4 (2.3)		

Discussion

This study provides a critical assessment of stress levels, common stressors, and management strategies among medical health practitioners in Nigeria. The findings indicate that high workload, inadequate salaries, and lack of resources are significant contributors to stress among doctors. The prevalence of high stress levels (87.5%) underscores the urgent need for intervention to address these occupational challenges. The study identified high workload, inadequate salaries, and lack of resources as the most significant stressors among medical practitioners. The most commonly used stress management practices—relaxation, sleep/rest, and taking leave/vacations—were also reported as the most effective. Conversely, unhealthy coping mechanisms like smoking and denial/self-blame, though less common, were notably ineffective. Socio-demographic factors such as age, professional cadre, and years of experience were significantly associated with stress levels. Consultants reported the highest stress levels, likely due to additional administrative and supervisory roles.

The findings from this study indicate that the most significant stressor among doctors was a high workload (72%), followed closely by poor salary (62.5%) and inadequate resources (61.5%). These results are consistent with a similar study conducted by Onowhakpor., *et al*. in Benin-City in Nigeria which also identified high workload as a primary stressor among medical professionals [9]. However, variations exist when comparing stressors in different geographical regions. For instance, a study conducted in China found that doctors were more concerned about negligent and endangering coworkers, the risk of infection, and the discomfort caused by protective gear rather than economic-related stressors [10]. These differences may be attributed to economic disparities between both countries, differences in healthcare systems, and variations in workplace safety regulations.

Beyond workload, salary, and resource constraints, other common stressors identified in this study included inadequate staffing levels, time pressure, prolonged exposure to infectious agents, sleep deprivation, lack of recreational facilities, job insecurity, running behind schedule, distant accommodation, dealing with difficult patients, exposure to harmful chemicals, organizational challenges, physical abuse, and concerns about patient complaints. These stressors collectively contribute to burnout, decreased job satisfaction, and reduced overall well-being among doctors. In response to these stressors, doctors employed various coping mechanisms, with the most commonly reported strategies being relaxation, adequate sleep/rest, and taking leave or vacation. These findings align with a similar study conducted by Oridota., *et al*. in Lagos in Nigeria which also highlighted the prominence of these coping mechanisms among doctors in similar socioeconomic and geographic settings [11]. The similarity in findings may be attributed to the shared working conditions and economic realities within the region. In contrast, a cross-sectional study conducted in Saudi Arabia by Alosaimi., *et al*. among 917 resident doctors found that the most commonly utilized stress management strategies were religious coping methods, including prayer and acceptance of fate, while alcohol drinking or substance use was the least frequently reported stress-coping strategy [12]. In a related study conducted by Anigbogu and Ilo among nurses, the predominant strategies used to cope with occupational stress included expressing their emotions (47.01%), practicing effective time management (42.73%), and avoiding unnecessary stressors [13]. This variation in coping mechanisms may be influenced by cultural differences, the centrality of religion in daily life, and possibly better work conditions that reduce the reliance on relaxation and vacation as primary coping strategies. Other commonly reported stress management techniques in this study included time management, listening to music, seeking social support, watching movies, exercising (including yoga), reading, optimism, and religious observance.

The effectiveness of various stress management strategies was also evaluated. According to the findings, relaxation, sleep/rest, and taking leave or vacation were perceived as the most effective methods for reducing stress among doctors. Additionally, time management, emotional support from others, listening to music, and social support were also deemed beneficial. Interestingly, a study conducted in Port Harcourt in Nigeria, involving 90 doctors, found that the most effective stress management strategies were maintaining a positive attitude, setting priorities, and focusing on the most important tasks [14]. The disparity between this study and the current findings could be attributed to differences in sample size, as the University of Port Harcourt study had a relatively small sample of 90 doctors compared to the 200 doctors surveyed in the present study.

Similarly, a study conducted in Ukraine among 14 healthcare workers by Koval reported that excessive stress levels were common among medical professionals, with progressive muscle relaxation and deep breathing techniques identified as the most effective coping mechanisms [15]. This contrasts with the present study, possibly due to differences in cultural contexts, healthcare systems, and occupational stressors. The Ukrainian healthcare system may emphasise mental well-being strategies such as relaxation techniques, whereas doctors in Nigeria might rely more on physical rest and social support as primary coping strategies.

The current study further examined the relationship between socio-demographic factors and stress levels among doctors. Age, professional cadre, and duration of practice were found to have significant associations with work-related stress, whereas marital status and gender did not appear to have a notable impact. Notably, medical health practitioners aged 50-59 years reported the highest levels of stress, while those aged 30-39 experienced the lowest levels. This finding suggests that accumulated responsibilities and prolonged exposure to occupational stressors may contribute to higher stress levels in older doctors.

Furthermore, consultants were observed to experience more stress compared to other cadres, likely due to additional responsibilities such as supervising junior colleagues, teaching, and administrative duties. This finding contrasts with a study conducted by Onowhakpor in Benin-City Nigeria, which reported that younger doctors exhibited higher stress levels [9]. The discrepancy could be influenced by the increasing emigration of younger doctors seeking better opportunities abroad, thereby placing additional workload burdens on the senior doctors who remain.

These findings highlight the pressing need for interventions that address the root causes of stress among doctors, such as workload reduction, better remuneration, improved staffing, and enhanced workplace support systems. Implementing effective coping strategies tailored to the local context is crucial for promoting the well-being and productivity of healthcare professionals.

Our study has a number of implications for clinical practice. Healthcare institutions should implement structured stress management programs, such as mindfulness training, work schedule adjustments, and mental health support services. Ensuring adequate staffing levels and providing better remuneration can also help mitigate stress among medical practitioners.

This findings also have a number of implications for research. These results suggest that while many practitioners are engaging in healthy stress management practices, there is still a need for more structured support systems within healthcare institutions. Interventions that promote effective stress management techniques could help reduce burnout and improve overall job satisfaction among medical practitioners. Furthermore, addressing systemic issues such as workload and resource constraints could significantly alleviate stress levels, leading to better healthcare outcomes for both practitioners and patients. Further research is needed to explore the long-term impact of stress on doctors' health and patient care outcomes. Studies focusing on intervention effectiveness and comparisons across different healthcare settings in Nigeria would provide valuable insights for policy development.

This study has some strengths as it provides robust data on stress management among medical practitioners in Nigeria. This study has a number of limitations. The limitations include its single-center design, which may affect generalisability. Self-reported data may also introduce response bias, and additional qualitative research could provide deeper insights into stress management experiences.

Conclusion

Medical practitioners in Nigeria experience high stress levels due to various workplace challenges. Effective stress management practices, such as relaxation and adequate rest, can help mitigate stress. Structural interventions are necessary to improve working conditions, reduce burnout, and enhance overall job satisfaction among medical health practitioners. It is recommended that healthcare institutions implement formal stress management programmes, optimise work schedules, and improve working conditions to enhance medical health practitioners' well-being and ensure quality patient care.

Acknowledgments

We express our gratitude to all the medical health practitioners who gave the data employed in the study.

Consent to Participate and Consent to Publish

Participation was voluntary, and informed consent was obtained from all participants. Confidentiality was maintained throughout the study. Confidentiality was maintained throughout the study by ensuring that participants' identities were not linked to their data at any point.

Ethical Approval and Consent to Participate

Ethical approval was obtained from the Ethics Committee of Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi, Nigeria, with ethical approval number of NAUTH/CS/66/VOL.16/VER.3/243/2023/196, ensuring compliance with institutional and national ethical regulations. Participation in the study was entirely voluntary, and only individuals who provided written informed consent were administered the questionnaire. This study was conducted in compliance with the ethical principles of the Helsinki Declaration and relevant national guidelines.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Author Contributions

EAE and EUA are the principal investigators. ELD, STE, UWA, AAM, VCA, ENU, BA, AAO, OCE and ESE conceived the study. Data assessment was performed by ECI, CTE, OKN, OMO, SCE, THE, KCN and GUE. Calculations and data interpretation were performed by MCE, JEM, IJO, CMO, EFO, and GUE. Statistical analysis was performed by EUA, ELD and STE. UWA and AAM prepared tables and figures. The first draft of the paper was written by EAE, EUA, ELD, STE and GUE. ECI, CTE, OKN, OMO, SCE, THE, KCN and GUE critically revised the paper. All authors reviewed and edited the final draft. All authors critically reviewed the article, gave final approval of the version to be published, agreed on the journal to which the article has been submitted, and agreed to be accountable for all aspects of the work.

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Data Availability Statement

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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