

Organizational Stress, Workplace Safety and Quality of Life among Selected Health Workers in Public Hospitals in Rivers State

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Abstract

The aim of the study is to examine the relationship between organizational stress, workplace safety and quality of life among health workers in selected public hospitals in Rivers State. This research work was anchored on the Domino Theory by H. W. Heinrich (1959). This is a theory of accident causation and control. A correlational research design was employed to comprehensively study the relationships between these variables. The research focused on 585 selected health workers across different health centres in Obio-Akpor Local Government Area of Rivers State, employing a census sampling and convenient sampling techniques. Statistical analysis showed that to a high extent, organizational safety influences the quality of life of health workers in Rivers State (grand mean=2.86, std.=0.96). Also, the study presented a grand mean of 2.76 and a standard deviation of 0.83 that workplace stress influences the quality of life of health workers in Rivers State to a very high extent. The study recommends that healthcare organizations and policymakers should invest in advanced safety technologies. Also, hospital administrations should focus on enhancing organisational safety and reducing workplace stress through appropriate measures. These changes are imperative for improving the quality of life among health workers in Rivers State.

Keywords: Stress, Workplace Safety, Quality of Life, Public Hospitals

Introduction

The WHO defines quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns (1997, 1). This definition highlights the view that quality of life is subjective, includes both positive and negative facets of life and is multidimensional in nature. Health workers experience a high level of stress at work, which is associated with frequent exposure to diseases, dying and death of patients, thereby producing a great deal of anxiety and self-doubt. This may contribute to feelings of burnout and distress among health workers. This is why evaluating the quality of life of health workers is necessary.

For the purpose of this research, workplace stress and organizational safety will be studied as the variables that can influence the quality of life of health workers in selected health centres in Rivers State. Also, the health workers considered for this study are the Laboratory technicians, phlebotomists, pharmacists, and health care assistants.

The laboratory technicians perform medical tests to aid in diagnosing and treating patients. A phlebotomist collects blood samples from patients for further testing. These professionals can work in several health care facilities, such as general practitioner offices, hospitals and health care homes. Typically, phlebotomists take a brief from a doctor and collect the amount of blood necessary for specific tests. They learn how to take blood in a way that causes the patient minimal stress and abide by stringent hygiene regulations to minimise the risk of infection or pain.

A healthcare assistant's primary role is to provide one-on-one support to patients and their families during a hospital visit. This can include directing them around the facility, ensuring they have the appropriate assistive devices, such as wheelchairs, and providing companionship during their stay. They may also conduct small technical tasks, such as monitoring vital signs and compiling notes for nurses and doctors. A health care assistant's primary role is to provide one-on-one support to patients and their families during a hospital visit. This can include directing them around the facility, ensuring they have the appropriate assistive devices, such as wheelchairs, and providing companionship during their stay. They may also conduct small technical tasks, such as monitoring vital signs and compiling notes for nurses and doctors.

The World Health Organisation (WHO) defines work-related stress, also known as workplace stress, as “the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities, which challenge their ability to cope” (World Health Organization, 2003). Self-perceived health is a powerful indicator of health status, and it is significantly influenced by stress, which could be workplace stress.

Organisational safety is another variable the researcher uses to explain quality of life. Workplace safety is about preventing injury and illness among employees. Therefore, it is about safeguarding assets and employees' health and lives. Idubor et al. in 2015 also reported a

relationship between the levels of stress experienced and health status. Low socioeconomic status, physical disability and poor access to good healthcare services have been noted to be associated with poor perceived health status among health workers. Poor sleep quality and sleep duration, either being too short or too long, are also related to a poor health status at all ages.

2. Statement of the Problem

Workplace stress and lack of an enabling work environment can culminate in ill-health of health workers, but how they actually perceive their health has not been well documented in the literature, especially in Rivers State, Nigeria. It is therefore worthwhile to study the quality of life of health workers and to examine how these variables affect it.

The following research questions were stated to guide the study:

- 1) To what extent does organisational safety influence the quality of life of health workers?
- 2) To what extent does workplace stress influence the quality of life of health workers?

Literature Review

The concepts of quality of life and happiness cannot be equated, as people perceive their content, characteristics and indicators differently (Susnienė & Jurkauskas, 2009). Quality of life also depends on external factors. Good living conditions or circumstances will determine a high quality of life, but if these conditions vary, the individual's satisfaction with his or her quality of life will vary too. Quality of life is influenced by many various factors and conditions, such as: accommodation, employment, income, material welfare, moral attitudes, personal and family life, social support, stress and crises, health-related quality of life, health care service, working conditions, nourishment, education opportunities, relationships with the environment, eco-factors, and others.

Organisational Safety

Organisational safety refers to the policies, procedures, and practices implemented within an organisation to ensure the physical and psychological well-being of its employees. From a psychological perspective, organisational safety is closely linked to employee well-being and job satisfaction. A workplace perceived as unsafe can lead to increased stress, lower job satisfaction, and reduced productivity (Nahrgang, Morgeson, & Hofmann, 2011). Conversely, a strong safety culture can enhance employee morale and contribute to higher levels of engagement and performance (Clarke, 2013).

Workplace Stress

Workplace stress represents a significant concern for both employees and organisations, given its pervasive impact on individual well-being and organisational performance. Defined as the physical and emotional responses that occur when there is a discrepancy between job demands and the capabilities, resources, or needs of the worker, workplace stress has multifaceted repercussions, including reduced productivity, increased absenteeism, and

heightened risk of chronic conditions like cardiovascular disease (Sauter et al., 1999; Lazarus & Folkman, 1984).

Theory, empirical literature review and statement of hypotheses

This research work was anchored on the Domino Theory by H. W. Heinrich (1959). This theory of accident causation and control, developed by H.W. Heinrich, holds that all accidents, whether in a residential or workplace environment, result from a chain of events. The chain of events consists of the following sequential factors: ancestry and social environment, an individual's mistake, an unsafe action and/or physical hazard, the actual accident, and an injury as a result of the preceding factors. These factors are described as dominoes, and the removal of any one of these five factors can prevent the accident.

The Domino Theory by H. W. Heinrich (1959) relates closely to this study because it explains how unsafe conditions and stressful work environments can gradually lead to accidents, poor health, and reduced quality of life among health workers. According to the theory, accidents and negative outcomes do not happen suddenly; they occur through a chain of events. In the context of this research, workplace stress, poor organisational safety, excessive workload, fatigue, lack of protective measures and unsafe hospital conditions can be seen as the "dominoes" that eventually affect the well-being and performance of health workers.

Workplace Stress and Quality of Life

According to Rebecca (2010), company culture affects employees' stress levels. When they have a competitive culture, they get more stress than in a cooperative culture. Also, Rebecca mentions that with poor workplace morale, there will be more whining, complaining and people will do their job without commitment. On the positive end, the workplace is energized by a sense of purpose and teams that genuinely want to work together, significantly improving the quality of work life. A worker can be trained to cope with stress, but when the coping mechanism leads to psychological reactions such as worry, tension, depression, and lowered performance capacity. Drug and alcohol abuse. Stress needs to be reduced, as stress is harmful to an individual. If the level of stress which an individual faces on the job is high, his/her productivity and efficiency at work would decline, thus leading to a decrease in QoL. An organization should provide a stress-free environment to its employees so that they can work productively towards the goals of the organization.

Research Design

The researcher opted for a correlational research design to investigate the relationships between various variables, such as organizational safety and workplace stress. This design was particularly apt because it enabled examination of how these variables relate to the quality of life of health workers in primary health centres in Rivers State.

Setting / Area of Study

Rivers State has 342 health facilities, which include primary, secondary, and tertiary healthcare facilities, spread across the 23 local government areas. The Rivers State Primary Health Care Management Board (RSPHCMB) manages over 346 Primary Health Facilities. There are about 18 secondary and 2 tertiary facilities. But the study area includes selected health centres in Rivers State.

Population of the Study

The research focused on health workers in selected health centres in Rivers State. Consequently, the combined total of health workers in these health centres stands at 585.

Sample Size and Sampling Technique

The research employed a census sampling technique in choosing the 585 health workers from the different local government areas in Rivers State. The convenient sampling method was used to distribute questionnaires to all health workers in selected health centres in Rivers State.

Data and Instrument for Data Collection

The instrument that was used for the collection of data consists of four (4) sections (A, B, C and D) as follows:

Section A. Social Demographic Variables

The demographic variables in the questionnaires were used to obtain basic information about the health workers who participated in the study and they consist of: age, gender, marital status, specialty, length of service, current cadre of health workers, name of hospital etc

Section B: Quality of Life Scale (QOL)

The questionnaire was rated on a 5 point likert scale ranging from strongly agree (5), agree (4), uncertain (3), Disagree (2), Strongly Disagree (1). Items include “my company’s work environment is good and highly motivating”, and “communication flows smoothly in the Department”. Higher scores indicate a good quality of work life while lower scores show a demotivated performance level. The author reported a Reliability measure of 0.88 Cronbach's alpha value.

Section C: Workplace Health and Safety Survey

The survey was developed by the Institute for Work and Health in 2016. It is a 27-item questionnaire. It is part of the OHS vulnerability measure based on protecting and improving the safety and health of working people. The questionnaires aim to answer various sections of health and safety in the workplace, ranging from workplace hazards, workplace policy and procedures, occupational health and safety awareness, and participation in occupational health and safety.

The first section of the questionnaire was represented on an 8-point Likert scale ranging from “never to don’t know/not available”. The second, third and fourth section of the questionnaire was represented on a 5-point Likert scale, ranging from “strongly agree to don’t know/Not available”. The questionnaire reported a test Reliability of 0.8 cronbach alpha, which was found to be sufficient.

Section E: Work Stress Questionnaire (WSQ)

The work stress questionnaire was developed by Holmgren et al. (2008). It consists of twenty (21) items covering four (4) main themes: indistinct Organization and conflict, individual demand and commitment, influence at work and work-to-leisure time interference.

Procedure for Data Collection

The researcher initiated the study by obtaining a formal permission letter from the Department of Psychology in the Faculty of Social Science, Rivers State University. Additionally, participants were given explicit instructions on how to complete the questionnaire accurately, thereby ensuring the validity and reliability of the data collected.

Statistical Analysis

The current study utilised a range of statistical methods to analyse the data collected. Simple percentages were employed to scrutinise the bio-data of the respondents, offering. For the research questions, means and standard deviations were calculated. Furthermore, regression analysis was deployed to assess the level of significant relationships between the variables under investigation.

Data Presentation, Analysis and Discussion

Bio-data of the Respondents

Table 1: Respondents’ Gender Distribution

Detail	Categories	Frequency	Percentage
Gender	Male	313	55.4
	Female	252	44.6
	Total	565	100.0

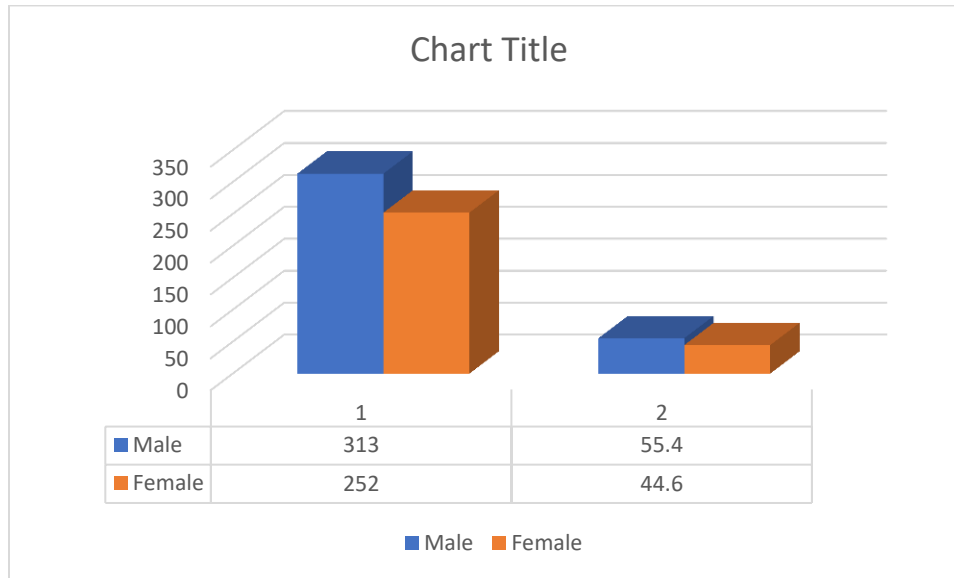


Fig. 1: Gender

Fig. 1 shows the gender distribution of the respondents. The study was characterized by 313 (55.4%) males and 252 (44.6%) females, which implies that the study was highly dominated by the male respondents.

Table 2: Respondents' Marital Status Distribution

Detail	Categories	Frequency	Percentage
Gender	Married	209	37%
	Single	286	51%
	Widow/widower	31	5%
	Divorced	39	7%
	Total	565	100.0

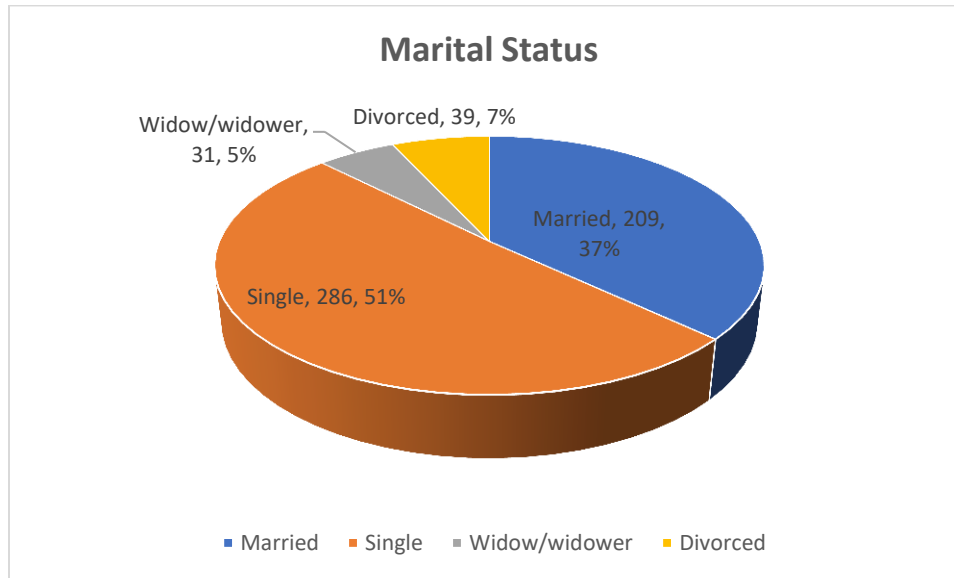
**Fig. 2: Marital Status**

Fig. 2 shows the marital status of respondents. The study is characterised by 209 (37%) married respondents, 286 (51%) singles, 31 (5%) widowed and 39 (7%) divorced. The study is highly dominated by the married class, followed by the single class, and in that order.

Table 3: Respondents' Age Bracket

Detail	Categories	Frequency	Percentage
Age	18-27 years	186	32.9
	28-37 years	250	44.2
	38-47 years	67	11.9
	48-57 years	62	11.0
	Total	565	100.0

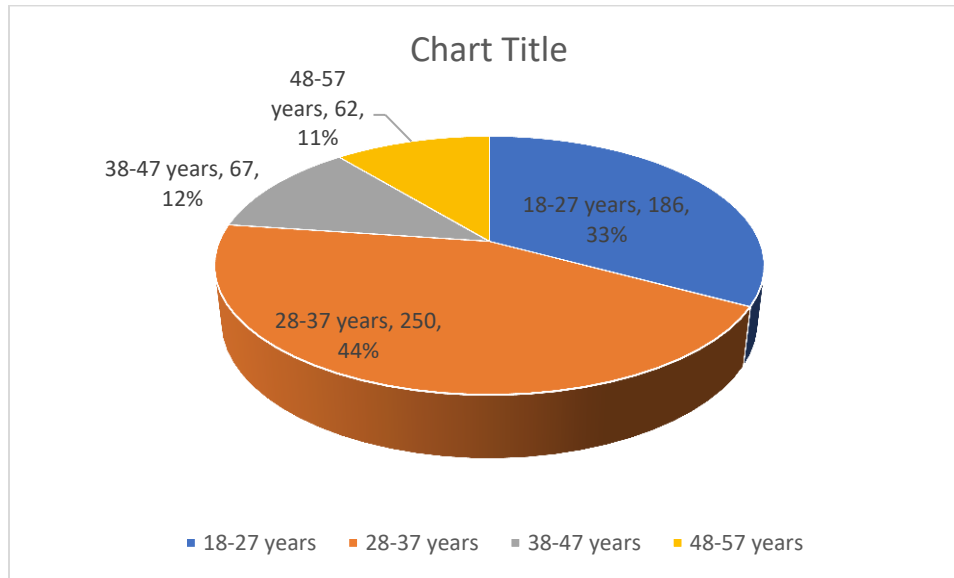


Fig. 3: Respondents' Age

The figure above shows the bio-data of respondents based on age. It was clearly accounted that 186 (32.9%) health workers were of the ages of 18-27 years, 250 (44.2%) were of the ages of 28-37 years, 67 (11.9%) health workers were of the ages of 38-47 years, and 62 (11%) were of the ages of 48-57 years. Significantly, the study is highly dominated by health workers between 28 and 37 years.

Research Question One: To what extent does organizational safety influence the quality of life of health workers?

Table 4 showed the extent organizational safety influences the quality of life of health workers in Rivers State. The study showed that to a great extent, organizational safety influences the quality of life of health workers in Rivers State (grand mean=2.86, std.=0.96). The respondents believe that making a safe working environment, ensuring a work environment free from dangers, ensuring a healthy workplace, maintaining safety standards, and managing and reducing potential hazards to the barest minimum can help influence the quality of life and health of workers in Rivers State. Also, a significant relationship exists between organizational safety and the quality of life of health workers (r -value=0.358, sig-value=0.01).

Research Question Two: To what extent does workplace stress influence the quality of life of health workers?

Table 5 showed the extent to which workplace stress influences the quality of life of health workers in Rivers State. The study presented a grand mean of 3.45, and a standard deviation of 0.74 that workplace stress influences the quality of life of health workers in Rivers

State to a great extent. The respondents perceive that high levels of workplace stress significantly reduce overall quality of life, challenge work-life balance, affect physical health, mental well-being, emotional health, and overall life satisfaction. Furthermore, there is a significantly negative relationship between workplace stress and the quality of life of health workers (r -value=-0.619, sig.-value=0.00).

Test of Hypotheses

HO₁: There is no significant relationship between organizational safety and the quality of life of health workers.

Table 4: Regression Analysis on the Relationship between Organizational Safety and the Quality of Life of Health Workers

A. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5494.790	1	5494.790	206.187	.000
	Residual	15003.698	563	26.650		
	Total	20498.488	564			

a. Dependent Variable: Quality of Life of Health workers

b. Predictors: (Constant), Organizational Safety

Table A showed the significant relationship between organizational safety and the quality of life of health workers. The F-ratio of 206.187, and significant value of 0.00 showed that there is a significant relationship between organizational safety and the quality of life of health workers.

B. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	20.045	.957		20.944	.000	18.165	21.925
	Organizational Safety	1.778	.054	.590	14.359	.000	.672	.884

a. Dependent Variable: Quality of Life of Health workers

On table B, the regression line ($20.045+0.778$) showed that an increase in organizational safety will lead to an increase in quality of life of the health workers in Rivers State. Hence, hypothesis one is rejected, thus the alternative hypothesis is accepted at ($t\text{-test}=14.359$; $\text{sig.}=0.00$)

HO₂: There is no significant relationship between workplace stress and the quality of life of health workers in River State.

Table 5: Regression Analysis on the Relationship between Workplace Stress and the Quality of Life of Health Workers in Rivers State

A. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1557.894	1	10.894	143.005	.000
	Residual	19940.595	563	35.418		
	Total	20498.488	564			

a. Dependent Variable: Quality of Life of Health workers

b. Predictors: (Constant), Workplace Stress

Table 4 showed the significant relationship between workplace stress and the quality of life of health workers in Rivers State. The F-ratio of 143.005 and the significant value of 0.00 showed that there is a significant relationship between workplace stress and the quality of life of health workers.

B. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	31.254	.603		51.844	.000	30.070	32.438
	Workplace Stress	-1.235	.059	.787	-20.93	.000	.119	.351

a. Dependent Variable: Quality of Life of Health workers

On table B, the regression line ($20.045+0.778$) showed that an increase in workplace stress will lead to a decrease in quality of life of the health workers in Rivers State. Hence, hypothesis three is rejected; thus, the alternative hypothesis is accepted ($t\text{-test} = -20.932$; $\text{sig.} = 0.00$).

Organizational Safety and the Quality of Life of Health Workers

Table 4 showed the extent organizational safety influences the quality of life of health workers in Rivers State. The study showed that to a high extent, organizational safety influences the quality of life of health workers in Rivers State (grand mean=2.86, std.=0.96). The respondents believe that making a safe working environment, ensuring a work environment free from dangers, ensuring a healthy workplace, maintaining safety standards, and managing and reducing potential hazards to the barest minimum can help influence the quality of life of health workers in Rivers State. Also, a significant relationship exists between organizational safety and the quality of life of health workers ($r\text{-value}=0.358$, $\text{sig-value}=0.01$).

The current study aligned remarkably well with the research conducted by Clarke et al. (2019), which delved into the critical issue of how an organization's safety culture can substantially impact the rate of medical errors. Clarke and his team arrived at the pivotal conclusion that a robust organizational safety culture plays an instrumental role in reducing medical errors. This reduction is significant not just for patient outcomes but also for the mental and emotional well-being of healthcare providers, who often bear the brunt of the stress associated with these errors. This observation closely echoes the findings of the current study, which identified that a safe working environment has a strong positive influence on the quality of life of health workers in Rivers State's tertiary hospitals.

Influence of Workplace Stress on the Quality of Life of Health Workers

Table 5 showed the extent to which workplace stress influences the quality of life of health workers in Rivers State. The study presented a grand mean of 2.76, and a standard deviation of 0.83 that workplace stress influences the quality of life of health workers in Rivers State to a great extent. The respondents perceive that high levels of workplace stress significantly reduce overall quality of life, challenge work-life balance, affect physical health, mental well-being and emotional health, and overall life satisfaction. Furthermore, there is a negative significant relationship between workplace stress and the quality of life of health workers ($r\text{-value}=-0.619$, $\text{sig-value}=0.00$). The study demonstrated that there is a significant relationship between Workplace Stress and Quality of Life of Health workers in tertiary hospitals in Rivers State.

The current study aligns closely with the work of Smith et al. (2019), a seminal paper that investigates the pressing issue of workplace stress and its subsequent impact on burnout among physicians. Smith and his colleagues particularly concentrate on resident physicians, illuminating the high stress levels they encounter in their work environment. The researchers arrived at the crucial conclusion that the elevated stress levels are directly proportional to

increased rates of burnout, which, in turn, lead to a discernible reduction in the physicians' overall well-being. This conclusion is profoundly significant as it parallels the observations made in the current research study. Similar to Smith et al., the current research emphasises the adverse effects of workplace stress on healthcare professionals, with particular focus on healthcare workers in tertiary hospitals in Rivers State. The study clearly indicates that there is a substantial and significant relationship between the stress experienced in the workplace and the resultant quality of life of these health workers. Like Smith et al.'s findings, the current study serves as a clarion call for the immediate attention of healthcare organisations, administrators, and policymakers.

Conclusion

In conclusion, this study established that organizational safety and workplace stress significantly influence the quality of life of health workers in public hospitals in Rivers State. The findings revealed that a safe and supportive work environment improves the well-being, job satisfaction, and overall performance of health workers, while high levels of workplace stress negatively affect their physical health, emotional stability, work-life balance, and general quality of life. Anchored on Heinrich's Domino Theory, the study further demonstrated that unsafe conditions and stressful work environments can trigger adverse outcomes that affect both workers and healthcare service delivery. Therefore, healthcare administrators and policymakers must prioritize organizational safety measures and effective stress management programmes to enhance the welfare, productivity, and quality of life of health workers in Rivers State.

Recommendations

Based on the identified findings, the following recommendations were stated:

- 1) **Enhancement of Organizational Safety Measures:** Given the strong influence of organizational safety on the quality of life of health workers, healthcare organizations and policymakers should invest in advanced safety technologies. These should include emergency response training, advanced first aid, and the incorporation of safety measures into the hospital architecture itself, such as secure storage for hazardous materials. A safe work environment not only improves the quality of life for healthcare providers but also indirectly impacts the quality of care that patients receive. By making safety a cornerstone of organizational policy, healthcare settings can become more conducive to both effective medical practice and enhanced well-being for health workers.
- 2) **Comprehensive Stress Management Programmes:** The study's findings on the detrimental effects of workplace stress necessitate the development of comprehensive stress management programmes. This should encompass both preventive measures, such as workload management, and therapeutic interventions like counselling and

mental health support. By adopting a holistic approach to stress management, healthcare organizations can significantly improve the work-life balance and overall quality of life for health workers.

Contributions to Knowledge

The current study contributes significantly to the extant literature on the quality of life of health workers, particularly in the context of tertiary hospitals in Rivers State. Firstly, it identifies the overarching influence of organizational safety on the well-being of healthcare providers, thereby emphasising the need for a paradigm shift from mere regulatory compliance to an organisational culture that prioritises safety. This study provides empirical evidence to support the urgency of integrating safety measures into healthcare policy planning and organizational strategy.

Secondly, this research illuminates the severe impact of workplace stress on health workers' quality of life, adding nuance to existing studies by showcasing its multi-dimensional effects, including its impact on work-life balance, mental health, and overall life satisfaction. This calls for comprehensive stress management programs tailored for healthcare settings.

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