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Occupational Stress and Employee Performance in University Teaching Hospitals in Cross River and Akwa Ibom States, Nigeria

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Abstract

The study examined the effect of occupational stress on employee performance in teaching hospitals in Cross River and Akwa Ibom States, Nigeria. Specifically, it assessed the effects of workload, long working hours, inadequacy of medical facilities and equipment, and role conflict on quality service delivery. The study adopted an ex-post facto research design using survey method, and data were collected from 350 respondents drawn from University of Calabar Teaching Hospital and University of Uyo Teaching Hospital. Four hypotheses were tested using ordered probit, logit, and extreme value regression models, with the probit model identified as the most suitable based on model fit criteria. Findings revealed that workload, long working hours, inadequacy of medical facilities and equipment, and role conflict all had statistically significant positive coefficients on employee performance measured through quality service delivery. However, this does not imply improved working conditions. Rather, it suggests pressure-driven performance, where staff maintain or increase output under stressful and constrained hospital environments. The model further showed strong explanatory power (R^2 = 0.745; Adj. R^2 = 0.715), indicating that occupational stress variables jointly explained about 71.5 percent of variations in performance outcomes. The study concludes that while occupational stressors may appear positively associated with performance in the short term, this reflects adaptive coping and intensified effort under pressure rather than sustainable efficiency or improved service quality. It is recommended that hospital management implement workload redistribution, regulate working hours, and ensure

adequate provision and maintenance of medical facilities and equipment. Clear job role definitions should also be enforced to reduce role conflict. These interventions are necessary to reduce occupational stress, improve staff well-being, and sustain long-term quality service delivery in Nigerian teaching hospitals.

Keywords: Occupational Stress, Healthcare Performance, Quality Service Delivery, Teaching Hospitals, Workload, Role Conflict.

Introduction

The healthcare sector is central to national wellbeing in Nigeria, where teaching hospitals function as critical referral centres for advanced diagnosis, treatment, and specialist care. Despite their importance, these institutions operate under conditions that expose healthcare workers to significant occupational stress, with direct implications for employee performance, service quality, and patient outcomes. Occupational stress arises when job demands exceed an individual's coping capacity, often due to excessive workload, unclear roles, and strained workplace relationships (Dominic et al., 2024). In teaching hospitals across Cross River and Akwa Ibom States, these stressors are intensified by systemic constraints such as staff shortages, high patient volumes, and limited resources, placing sustained pressure on healthcare professionals (Nwobodo et al., 2023). Evidence shows that healthcare workers frequently experience long working hours, emotional strain from patient care, and organisational challenges, which can result in burnout, absenteeism, and both physical and psychological health problems (Ella et al., 2021). Employee performance in this context is typically measured through efficiency, quality of service delivery, and patient-related outcomes, including safety and mortality rates. However, elevated stress levels tend to disrupt these performance indicators by reducing concentration, increasing errors, and slowing response times, thereby undermining the overall standard of healthcare delivery.

The relationship between occupational stress and employee performance is both complex and reciprocal, as persistent stress reduces job satisfaction, weakens motivation, and impairs cognitive and emotional functioning, ultimately diminishing productivity and quality of care (Aleke et al. 2022). In teaching hospitals, key stress variables include workload, adequacy of facilities and equipment, workplace relationships, and role conflict. Heavy workloads, driven by high patient demand and limited staffing, contribute to fatigue and increased likelihood of clinical errors. At the same time, inadequate or malfunctioning medical equipment creates additional strain, forcing healthcare workers to improvise under pressure and potentially compromising patient outcomes. Interpersonal dynamics within healthcare teams also play a critical role; poor communication and conflict reduce team cohesion and efficiency, with negative consequences for patient safety (Nwobodo et al., 2023). Similarly, role conflict

(common in multidisciplinary hospital settings) creates uncertainty and task ambiguity, further elevating stress and impairing performance (Aleke et al. 2022). These combined stressors contribute to absenteeism, low morale, and burnout, which ultimately reduce service quality and may increase adverse patient outcomes (Girma et al., 2021). Although global literature recognises these relationships, there remains limited empirical evidence focusing specifically on teaching hospitals in Cross River and Akwa Ibom States. This study therefore addresses this gap by examining how key occupational stress factors collectively influence employee efficiency, quality service delivery, and patient outcomes within these settings.

Research Rationale

Occupational stress poses a significant challenge to employee performance in teaching hospitals, particularly in Cross River and Akwa Ibom States where healthcare systems operate under persistent capacity constraints. In these settings, job demands frequently exceed available human and material resources, placing healthcare workers under sustained pressure that undermines efficiency, accuracy, and overall service delivery (Nwobodo et al., 2023). A key driver of this stress is excessive workload, largely resulting from high patient-to-healthcare-worker ratios and the continued emigration of skilled professionals. Consequently, healthcare providers are required to manage large patient volumes over prolonged working hours, leading to physical and mental exhaustion, reduced responsiveness, and a heightened risk of medical errors and adverse patient outcomes (Girma et al., 2021).

The problem is further intensified by inadequate facilities and equipment, which compel healthcare workers to expend additional time and effort delivering basic services, thereby reducing productivity and increasing stress levels. At the same time, long working hours and role conflict, manifested in unclear responsibilities, conflicting instructions, and competing administrative and clinical demands, disrupt decision-making processes and weaken both individual and team performance (Daniel, 2020). These interconnected stressors collectively contribute to declining service quality, longer patient waiting times, reduced employee effectiveness, and, in severe cases, poorer health outcomes, including increased mortality rates. Although occupational stress in healthcare is widely acknowledged, there remains limited context-specific evidence on how excessive workload, resource inadequacy, and role conflict jointly shape employee performance in teaching hospitals within Cross River and Akwa Ibom States. This lack of focused empirical insight constrains the development of targeted strategies to improve workforce performance and healthcare delivery in these settings. Hence, the specific objectives of this study were to:

1. examine the effect of workload on quality service delivery of teaching hospital in Cross River and Akwa Ibom States, Nigeria;
2. determine the effect of long working hours on quality service delivery of teaching hospital in Cross River and Akwa Ibom States, Nigeria;

3. determine the effect of medical facilities and equipment on quality service delivery of teaching hospital in Cross River and Akwa Ibom States, Nigeria;
4. examine the effect of role conflict on quality service delivery of teaching hospital in Cross River and Akwa Ibom States, Nigeria.

LITERATURE REVIEW

Occupational stress

Occupational stress is a major concern in healthcare institutions, particularly in teaching hospitals where employees face intense clinical and administrative demands. It refers to the physical and psychological strain that occurs when job requirements exceed an individual's capacity to cope effectively. Abebe and Alemseged (2016) conceptualise occupational stress as disruptions to mental and physical balance, while Oni et al. (2024) defines it as a stress response arising when work demands surpass available skills and resources. In healthcare settings, these pressures are amplified by emotionally demanding patient interactions, complex decision-making, and high-risk responsibilities, all of which significantly affect employee well-being and organisational efficiency. In teaching hospitals, stress commonly originates from heavy workloads, administrative expectations, and limited resources, creating a persistently demanding work environment. The transactional stress model explains this by emphasising how individuals cognitively appraise workplace demands and the extent to which they threaten personal resources (Ella et al., 2021); thus, healthcare workers may perceive continuous high-pressure tasks as overwhelming, particularly where institutional support is weak (Wushe, 2019). The relationship between occupational stress and performance is often non-linear, as explained by the inverted U-curve model, where moderate stress may enhance alertness and productivity, but excessive or prolonged stress leads to burnout, reduced efficiency, and declining quality of care (Akah et al., 2022). Beyond individual outcomes, occupational stress has wider organisational implications, including increased absenteeism, turnover, and reduced service quality, as evidenced in healthcare systems such as the English National Health Service (Wushe & Shenje, 2019). Persistent stress can result in medical errors, delayed service delivery, and poor workplace relationships, all of which undermine institutional effectiveness. Addressing these challenges requires structural and managerial interventions, such as clarifying job roles to reduce role conflict and improving staffing and support systems, which have been shown to enhance employee well-being and performance.

Employee Performance

Employee performance refers to how effectively and efficiently employees perform their duties and remains a key measure of organisational success in teaching hospitals where outcomes directly affect patient lives (Girma et al., 2021). It covers both task performance and contextual behaviours that support teamwork and the work environment (Ahmad et al., 2019; Amini-Philips & Okonmah, 2020), and is strongly influenced by occupational stress, which occurs when job demands exceed coping capacity (Ahmad et al., 2019). While moderate stress

may enhance performance, excessive stress leads to burnout, low job satisfaction, absenteeism, and reduced effectiveness (Maslach et al., 2001). A core dimension is employee efficiency, defined as the optimal use of time, skills, and resources alongside emotional stability (Soltan et al., 2020; Yousefi et al., 2019; Manaf et al., 2021), but high stress undermines this by impairing decision-making, increasing errors, and lowering productivity (Malik & Björkqvist, 2018; Lestari & Rizkiyah, 2021). This decline reduces quality service delivery, particularly in areas such as reliability, responsiveness, and empathy (Giauque et al., 2019; Breitenbach et al., 2021), and ultimately affects patient outcomes, including recovery, safety, and satisfaction (WHO, 2018). Evidence shows that stress contributes to medical errors, delays, and poor care quality (Ella et al., 2021), consistent with the job demands–resources model which links high demands to burnout and poor performance (Bakker & Demerouti, 2017). Conversely, reducing stress through organisational support improves employee performance and patient outcomes, while failure to address it leads to turnover and inconsistent care.

Workload and Quality of Service Delivery

Workload refers to the total amount of tasks, responsibilities, and pressure assigned to an employee within a given period, and it is a key factor shaping occupational stress and service quality in teaching hospitals. It reflects the balance between job demands and an individual's capacity to meet them (Pandey, 2020), and is influenced by task nature, organisational context, and available resources. In healthcare, it includes physical, emotional, and mental demands, especially in high-pressure clinical environments (Sari et al., 2021). In teaching hospitals, workload directly influences quality of service delivery because high patient volumes and time pressure often push staff to work faster, prioritise effectively, and respond more quickly to patient needs (Oseremen et al., 2022). When staffing is inadequate, workload increases stress levels, leading to fatigue, errors, low morale, and reduced quality of care (Wushe & Shenje, 2019). This weakens service delivery through delays, reduced attention to patients, and less consistent adherence to care standards. Over time, excessive workload contributes to burnout, emotional exhaustion, and reduced effectiveness (Akah et al., 2022), which further lowers employee performance and undermines service quality through absenteeism and turnover. This creates a cycle where declining performance worsens service delivery outcomes. However, when workload is properly balanced with employee capacity and resources, it enhances engagement, job satisfaction, and responsiveness, thereby improving service quality through more accurate, timely, and patient-centred care (Gurung & Bastola, 2020). In this way, effective workload management strengthens employee performance, which in turn improves the overall quality of service delivery in teaching hospitals (Hailu et al., 2020). Hence, it was hypothesized that:

H_1: Workload has a significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

Long Working Hours and Quality of Service Delivery

Long working hours refer to work periods that exceed standard contractual limits, commonly beyond 40–48 hours per week, and are increasingly common in demanding sectors such as healthcare (Hong et al., 2022; Kim et al., 2023). In teaching hospitals, this condition is especially relevant due to continuous patient care needs and staff shortages, which often require extended shifts and irregular working patterns (Ochiai et al., 2023). Long working hours negatively affect quality of service delivery by reducing healthcare workers' physical and mental capacity to provide timely, accurate, and patient-centred care. Prolonged exposure to such schedules is associated with health problems such as hypertension, cardiovascular diseases, and diabetes, as well as psychological issues like burnout, stress, and depression (Kim et al., 2023). These conditions reduce concentration, increase fatigue, and weaken decision-making, all of which directly lower service quality in clinical settings. Occupational stress acts as a key mechanism linking long hours to reduced performance, as excessive working time creates a mismatch between job demands and employee capacity, leading to strain and reduced effectiveness (Kivimäki et al., 2014). In teaching hospitals, this results in higher error rates, reduced responsiveness, and poorer patient care outcomes. Although long hours may increase service output in the short term, they ultimately reduce quality by limiting attentiveness and consistency in care delivery. Additionally, constant connectivity outside working hours further intensifies stress and blurs work–life boundaries, worsening cognitive fatigue and impairing professional judgement (Hong et al., 2022). Overall, while long working hours may increase immediate service availability, they weaken the quality of service delivery by undermining employee well-being, efficiency, and clinical accuracy. Hence, it was hypothesized that:

H_2: Long working hours has a significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

Medical Facilities and Quality of Service Delivery

Medical facilities and equipment are key components of healthcare delivery, especially in teaching hospitals where complex and specialised care is provided. They include infrastructure, diagnostic tools, treatment devices, and other medical technologies that support effective service delivery and improve patient outcomes (Onowhakpor et al., 2018; WHO, 2022). In teaching hospitals, the quality and availability of these facilities directly enhance quality of service delivery by enabling accurate diagnosis, timely treatment, and efficient patient management. Adequate facilities reduce delays in care and improve clinical accuracy, allowing healthcare workers to deliver more reliable and effective services (Daniel, 2020). However, when facilities are inadequate or equipment is outdated, service quality declines due to diagnostic errors, treatment delays, and reduced efficiency. This also increases occupational stress among healthcare workers, as they struggle to deliver quality care under constrained conditions, often leading to frustration, burnout, and reduced performance (Wushe, 2019). In contrast, well-equipped hospitals improve employee confidence, morale, and job satisfaction,

which translates into better service delivery and stronger institutional performance (Wushe & Shenje, 2019). The presence of functional and modern equipment therefore strengthens quality service delivery by reducing errors, improving workflow efficiency, and supporting better patient outcomes, while poor infrastructure weakens service quality by increasing stress and limiting healthcare workers' ability to perform effectively. Hence, it was hypothesized that:

H_3: Medical facilities have a significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

Role Conflict and Quality of Service Delivery

Role conflict refers to a situation where employees face incompatible demands from different responsibilities, leading to stress, confusion, and reduced effectiveness, especially in teaching hospitals where job roles are complex and highly demanding (Breitenbach et al., 2021). In such settings, healthcare workers may be expected to follow strict clinical protocols while also responding to the emotional needs of patients and families, creating competing expectations that strain performance. This conflict reduces clarity in job expectations, lowers job satisfaction, and increases occupational stress (Fadlurrahman et al., 2021). Its impact on quality-of-service delivery is significant because unclear or conflicting roles disrupt coordination, delay decision-making, and weaken responsiveness in patient care. In teaching hospitals, where timely and accurate service is critical, role conflict often leads to hesitation, reduced initiative, and inconsistencies in care delivery. As stress increases, employees may struggle to prioritise tasks effectively, resulting in reduced attention to patients and lower service quality (Lestari & Rizkiyah, 2021). This creates an inverse relationship where rising role conflict leads to declining service quality through burnout, reduced morale, and weakened teamwork. Ultimately, poor role clarity undermines employee confidence and contributes to occupational stress, which further reduces efficiency and the overall standard of healthcare delivery (Daniel, 2020). Hence, it was hypothesized that:

H_4: Role conflict has a significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

Theoretical Framework

The theoretical foundation for this study was based on the transactional stress theory developed by Lazarus and Folkman (1984). This theory explains stress as a dynamic interaction between individuals and their environment, where stress depends on how a person appraises a situation and the coping resources available (Lazarus & Folkman, 1984). It involves primary appraisal (evaluating whether a situation is a threat, challenge, or harm), secondary appraisal (assessing available coping resources), and coping responses, which may be problem-focused or emotion-focused (Lazarus & Folkman, 1984; Shakil, 2023). In relation to occupational stress and employee performance in teaching hospitals, the theory is highly relevant because it explains how healthcare workers interpret and respond to stressors such as workload, inadequate medical facilities, workplace relationships, and role conflict. For

workload, healthcare workers who perceive patient demands and long shifts as overwhelming due to limited resources are more likely to experience higher stress and reduced performance, whereas those who appraise the situation as manageable through prioritisation or teamwork may cope better and maintain performance. Similarly, inadequate medical facilities and equipment affect secondary appraisal, as workers who feel under-resourced are more likely to experience frustration and heightened stress, which reduces their ability to cope effectively and compromises patient care (Wushe & Shenje, 2019). Workplace relationships also influence stress appraisal, as supportive colleagues and supervisors act as coping resources that reduce stress, while poor relationships intensify negative perceptions and lower performance; thus, social support becomes a key emotion-focused coping mechanism (Lazarus & Folkman, 1984). Role conflict further increases stress when healthcare workers face unclear or competing job demands, leading them to appraise their roles as threatening and overwhelming, which may reduce job satisfaction and performance if not properly managed (Momoh et al., 2024). Overall, the theory provides a useful framework for understanding how stressors in teaching hospitals are not inherently harmful but become stressful depending on perception and coping capacity, thereby offering insight into how improving coping resources and workplace conditions can enhance employee performance and resilience in healthcare settings.

Review of Empirical Studies and Conceptual Framework

The review of empirical studies (see Table 1) shows a broad consensus that occupational stress significantly influences employee performance across healthcare and related service sectors, particularly in teaching hospitals where job demands are high and continuous. Across different contexts, studies consistently identify workload, role conflict, role ambiguity, long working hours, inadequate facilities, and poor organisational support as major stressors that reduce employee efficiency, weaken service delivery, and negatively affect patient outcomes (Dominic et al., 2024; Ella et al., 2021; Isa et al. 2026; Oseremen et al., 2022; Wushe & Shenje, 2019; Shakil, 2023; Momoh et al., 2024). Most findings show a generally negative relationship between occupational stress and performance, as high stress is associated with burnout, absenteeism, reduced productivity, and poorer quality of care (Girma et al., 2021; Daniel, 2020; Ampofo et al., 2020; Manaf et al., 2021; Soltan et al., 2020; Spanos et al., 2020; Nwobodo et al., 2023). However, the relationship is not entirely uniform, as some studies report weak, mixed, or context-dependent effects where stress may show neutral or slightly positive outcomes under supportive conditions such as strong leadership, rewards, and coping resources (Gurung & Bastola, 2020; Paramita & Suwandana, 2022; Guruge & Ban, 2021; Bjaalid et al., 2020). Overall, the evidence suggests that occupational stress generally undermines employee performance in teaching hospitals, but its impact depends on organisational and individual factors. Despite these insights, a key gap remains in studies that simultaneously examine multiple stress dimensions within teaching hospitals in Cross River

and Akwa Ibom States, Nigeria, particularly in relation to combined performance outcomes such as efficiency, service quality, and patient outcomes.

TABLE 1

Review of Empirical Studies on Occupational Stress and Employee Performance

Author & Year	Context	Aim	Methodology	Key Findings
Dominic et al. (2024)	Nigeria	Stress and nurse performance	Survey; regression	Work overload and relationships significantly affect productivity
Gurung & Bastola (2020)	Nepal	Stress and performance	Questionnaire; regression	Workload weakly negative; support improves performance
Girma et al. (2021)	Ethiopia	Occupational stress prevalence	Meta-analysis	52.5% prevalence; female workers more affected
Akah et al. (2022)	Nigeria	Stress and academic performance	Ex-post facto; regression	Workload negatively affects performance
Hailu et al. (2020)	Ethiopia	Stress among nurses	Cross-sectional	53% experienced stress; role ambiguity significant
Isa et al. (2026)	Nigeria	Stress and lecturer effectiveness	Survey; regression	Workload and facilities predict performance
Ella et al. (2021)	Nigeria	Stress and nurse performance	Survey	Workload and poor conditions reduce performance
Onowhakpor et al. (2018)	Nigeria	Stress and healthcare performance	SEM	Role clarity improves performance
Naru & Rehman (2020)	Pakistan	Stress and performance	Regression	Work overload reduces performance
Daniel (2020)	General	Work stress effects	Conceptual	Stress reduces productivity and increases absenteeism
Ampofo et al. (2020)	Ghana	Stress and productivity	Survey	Stress lowers performance and increases turnover
Guruge & Ban (2021)	Sri Lanka	Stress and performance	Survey	Positive stress-performance link
Felmban & Khan (2021)	Saudi Arabia	Stress and satisfaction	Survey	Stress affects performance and satisfaction
Sari et al. (2021)	Indonesia	Stress and productivity	Regression	Significant relationship with performance
Oseremen et al. (2022)	Nigeria	Stress in banking	Regression	Workload and conflict affect productivity
Pandey (2020)	Nepal	Stress in banking	Survey	High stress reduces performance

Author & Year	Context	Aim	Methodology	Key Findings
Shakil (2023)	Pakistan	Stress and burnout	Survey	Burnout mediates stress-performance link
Nwobodo et al. (2023)	Nigeria	Stress management	Exploratory	Long hours and burnout prevalent
Momoh et al. (2024)	Nigeria	Job stress and performance	Survey; regression	Work overload reduces performance
Bjaalid et al. (2020)	Norway	Institutional stress	SEM	Stress negatively affects performance

Source: Empirical review (2025)

The conceptual framework in FIG. 1 explores the relationship between occupational stress and employee performance within Teaching hospital. Occupational stress, the independent variable, encompasses multiple dimensions including workload, availability and adequacy of medical facilities and equipment, workplace relationships, and issues related to role conflict. These factors contribute to the overall level of stress experienced by employees. On the other hand, employee performance (the dependent variable) in this context, is evaluated through measures such as employee efficiency, the quality of service delivery, patient outcomes, and the mortality rate within the institution. The framework appears to suggest a connection between the facets of occupational stress and various aspects of performance, implying that stress factors could directly or indirectly influence how well employees perform their roles and the outcomes they achieve.

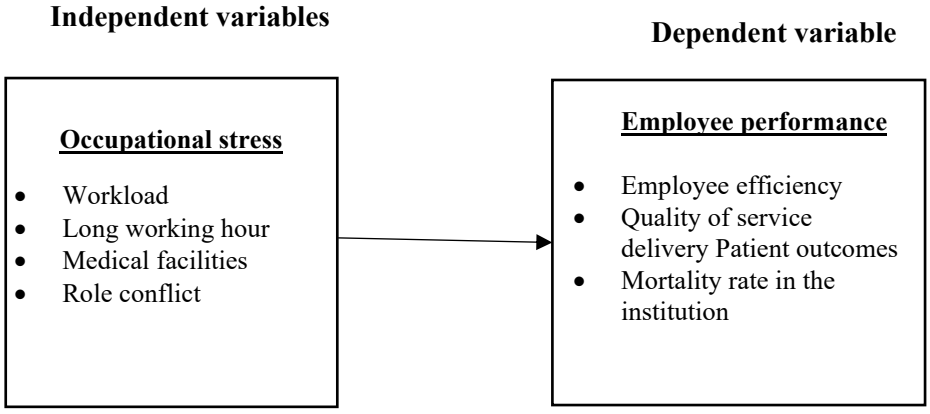


FIG. 1: Conceptual framework
Source: Researchers' Model (2025)

MATERIALS AND METHODS

Research Design

The study adopted a cross-sectional survey design. This design is appropriate because it examines relationships among variables at a single point in time without manipulating them. It allows the researcher to observe occupational stress and employee performance as they naturally occur in teaching hospitals. The survey approach enabled the systematic collection of data from respondents using a structured questionnaire. Information was obtained on workload, long working hours, adequacy of medical facilities and equipment, role conflict, and employee performance. This design was considered suitable because the variables cannot be manipulated, and the study focuses on explaining existing relationships rather than experimental control. It is widely used to describe, explain, and test relationships between variables based on respondents' perceptions and experiences. The choice of this design was justified by the need to test hypotheses on the relationship between occupational stress and employee performance in University of Calabar Teaching Hospital and University of Uyo Teaching Hospital in Cross River and Akwa Ibom States, Nigeria.

Population, Sample Size and Sampling Technique

The population of the study comprise of the entire 7817 staff from the two teaching hospitals in Cross River and Akwa Ibom States including University of Calabar Teaching Hospital UCTH, and University of Uyo Teaching Hospital UUTH. Based on the information obtained from the Administrative Department of the health institutions in Cross River and Akwa Ibom States, Nigeria, the total number of employees in each of the hospitals is presented in Table 2.

TABLE 2

Staff population distribution

S/N	Teaching hospital	Population of Staff
1	UCTH Calabar	6329
2	UUTH Uyo	1488
	Total	7817

Source: Administrative Departments of the hospitals December, 2025

Taro Yamane formula was applied to the population of each of the healthcare institutions to determine the sample size for the study. This was necessary to ensure adequate representation of the staff population in each of the healthcare institutions without being bias as shown in Table 3.2. The Taro Yamane formula was given as:

$$n = \frac{N}{1 + N(e)^2}$$

Where n = sample size
N = Population
1 = Constant
e = error limit (0.05)

$$n = \frac{7817}{1+7817\ (0.05^2)}$$

$$n = \frac{7817}{1+7817(0.0025)}$$

$$n = \frac{7817}{20.5425}$$

$$n = 381$$

The study adopted the simple random sampling technique. Simple random sampling technique is a means by which researchers give every sampling unit equal chance of being included in the research (Creswell, 2008). To ensure equal representation of teaching hospitals in Cross River and Akwa Ibom States, the two Teaching hospitals in Cross River and Akwa Ibom States (UCTH Calabar and UUTH Uyo) with a total population of 7817 was included in the study. The procedure used to ensure effective random sampling and to select the actual respondents from UCTH Calabar and UUTH Uyo was the table of random numbers at an interval scale determine from the sample size of the healthcare institutions. To ensure the success of this procedure, a list of employees from the two institutions were obtained. An interval scale of 20 was used in selecting the entire 381 respondents from the two health institutions. The main reason why the simple random sampling technique was used for the study was to compose a sample that would yield research data that can be generalized to the larger population without being bias.

Data Collection and Research Instrument

Data for the study were obtained from primary sources using a structured questionnaire developed by the researcher based on insights from existing literature. The questionnaire was divided into two sections: Section A captured respondents' demographic characteristics (sex, age, marital status, and educational qualification), while Section B measured the influence of occupational stress on employee performance using a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. Prior to the main survey, the instrument's reliability was tested through a pilot study conducted at General Hospital Calabar, where 20 questionnaires were administered to 20 employees and re-administered after two weeks to the same respondents. The data were analysed using Cronbach's Alpha in SPSS version 21 to assess internal consistency, with a threshold of 0.70 considered acceptable. The results showed satisfactory reliability, as all constructs recorded Cronbach Alpha values above 0.70, confirming that the instrument was suitable for data collection.

TABLE 3
Reliability test results

S/N	Constructs	Cronbach's Alpha
1	Workload	0.867
2	Long working hours	0.845
3	Medical facilities	0.934
4	Role conflict	0.845
6	Employee performance	0.893

Source: SPSS Output, version 2025

Data Analysis Techniques

The data obtained in this study were analysed using descriptive statistics, while the bivariate logit and probit models were extended in the form of ordered logit and ordered probit to incorporate multiple ranked categories, particularly for the dependent variable measured on a Likert-type scale, in order to test the study hypotheses. In specifying the mathematical model, the researcher was guided by theoretical and empirical considerations as well as the specific characteristics of occupational stress and its effect on employee performance. The model for this study will be formulated as:

$Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \mu$ ---------- (i)

$EP = f(WL, MFA, LWH, RCO) + \mu$ ---------- (ii)

$EP = a + \beta_1WL + \beta_2 MFE + \beta_3LWH + \beta_4 RCO + \mu$ ---------- (iii)

Where:

EP = Employee performance
WL = Workload
LWH = Long Working Hours
MFA = Medical Facilities
RCO = Role conflict
μ = Stochastic error term
$\beta_0, \alpha_0, \gamma_0$ = Constant

ANALYSIS AND DISCUSSION

A total of 381 copies of the questionnaire were administered to respondents at the University of Calabar Teaching Hospital (UCTH), Cross River State, and the University of Uyo Teaching Hospital (UUTH), Akwa Ibom State. Out of the 381 copies distributed, 350 were retrieved, representing a 91.86 per cent response rate, while 31 copies (8.14 per cent) were not returned. The high questionnaire return rate (91.86 per cent) suggests a strong level of engagement and willingness of respondents to participate in the study. This enhances the reliability and validity of the findings, as the large proportion of retrieved responses reduces the risk of non-response bias. With this data, the dull hypotheses of the study were tested thus:

H_o: Workload does not have significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

H_o: Long working hours does not have significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

H_o: Medical facilities do not have significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

H_o: Role conflict does not have significant effect on quality service delivery of Teaching hospital in Cross River and Akwa Ibom States, Nigeria.

TABLE 4

Ordered regression results for occupational stress constructs on employee performance

	Probit			**Logit**			**Extreme value**		
Variable	Coef.	z-stat.	Prob.	Coef.	z-stat.	Prob.	Coef.	z-stat.	Prob.
WL	0.3521	0.1123	0.0000	0.4922	0.1413	0.0001	0.5321	0.1362	0.0001
LWH	0.5513	0.1632	0.0002	0.4371	0.2414	0.0012	0.3422	0.2025	0.0004
MFA	0.4554	0.1153	0.0001	0.6714	0.1562	0.0031	0.4231	0.1342	0.0021
RCO	0.5324	0.1434	0.0001	0.4632	0.1681	0.0001	0.3253	0.2931	0.0000
Psuedo R^2		0.6751			0.6814			0.6974	
LR statistic		56.484	0.0000		58.825	0.0000		61.767	0.0000
Akaike info criterion (AIC)			1.9252			1.9651			1.9403

Source: Researchers' analysis (2025)

TABLE 5

Model summary results on the effect of occupational stress on employee performance.

Model	**R**	**R^2**	**Adj. R^2**	**Std. error**	**Sig.**
Constructs	0.763	0.745	0.715	0.1213	0.000**
	** Significant at less than 1 per cent				

** Significant at less than 1 per cent

Source: Researchers' analysis (2025)

The ordered probit, logit, and extreme value models were estimated, and the results are presented in Table 4. Based on model fit criteria, specifically higher log-likelihood values and lower Akaike Information Criterion (AIC), the probit model was selected as the most appropriate for interpretation. From Table 4, all occupational stress variables were statistically significant and positively related to employee performance (quality service delivery): workload ($\beta = 0.3521$, $p = 0.0000$), long working hours ($\beta = 0.5513$, $p = 0.0002$), medical facilities and equipment ($\beta = 0.4554$, $p = 0.0001$), and role conflict ($\beta = 0.5324$, $p = 0.0001$). In this context, "medical facilities and equipment" is interpreted as perceived inadequacy or strain in facility availability within the hospital environment. Thus, the positive coefficient indicates that greater pressure arising from facility-related constraints is associated with higher

reported performance, reflecting short-term adaptive coping or pressure-driven output rather than improved working conditions.

Further model evaluation in Table 5 shows a strong overall relationship between occupational stress variables and employee performance, with $R = 0.763$ and $R^2 = 0.745$, indicating that about 74.5% of variations in quality service delivery were jointly explained by the predictors. The adjusted R^2 of 0.715 confirms strong explanatory power after controlling for the number of variables. The model was statistically significant at $p < 0.01$, confirming overall validity. Based on the hypothesis tests, all null hypotheses were rejected. Specifically, workload (H01), long working hours (H02), medical facilities and equipment (H03), and role conflict (H04) all had significant effects on employee performance in the study area. However, these positive relationships should be interpreted with caution, as they likely reflect pressure-induced performance improvements in the short term rather than sustainable efficiency, service quality, or improved staff well-being.

DISCUSSION OF FINDINGS

Workload and Employee Performance

The test of the first hypothesis of this study shows that the coefficient of workload (WL) was positive with {c = 0.3521, z = 0.1123} and a p-value of 0.000 respectively. Thus, the coefficient passed the significance test at the 0.05 per cent level, dictating the rejection of the null hypothesis. The result implies that workload significantly affect employee performance (quality service delivery) in Teaching hospital in Cross River and Akwa Ibom States, Nigeria. This suggests that an increase in workload corresponds with a notable change in employee performance, particularly in areas such as efficiency and patient outcomes. A high workload often leads to job strain, burnout, and reduced attention to detail, which can compromise service delivery in high-pressure environments like Teaching hospital. This finding is corroborated by the study of Aleke et al. (2022), which highlights that excessive workload leads to job dissatisfaction, heightened stress levels, and a decline in overall job performance. Similarly, Adenuga (2021) found that an overwhelming workload in manufacturing firms negatively affected employee productivity, further reinforcing the detrimental effects of excessive job demands across various industries. In the healthcare sector, Ella et al. (2021) also demonstrated that high workloads significantly impact healthcare workers' efficiency and patient outcomes, with increased job stressors correlating with a decline in performance and patient satisfaction. These findings suggest that workload management should be a priority in hospital administration to improve employee well-being and optimize service delivery.

Long Working Hours and Employee Performance

The coefficient of long working hours was positive (c = 0.5513; z = 0.1632) and significant at 5 per cent (0.05), with a p-value of 0.002. This implies that long working hours significantly affect employee performance (quality service delivery) in teaching hospital in Cross River and Akwa Ibom States, Nigeria. Healthcare professionals working extended hours are at higher

risk of mental and physical exhaustion, leading to diminished job performance and increased patient safety risks. This result aligns with the research of Kim et al. (2023), who found that long working hours, coupled with the use of work-related communication devices outside working hours, led to increased anxiety symptoms and impaired job performance. The study by Hong et al. (2022) further supports this finding, demonstrating that extended working hours contribute to occupational stress, reduced well-being, and heightened depressive symptoms among workers. In the Nigerian context, Ella et al. (2021) affirmed that healthcare workers experiencing long shifts and unpredictable work schedules suffer from heightened stress levels, which ultimately affects their ability to provide quality patient care.

Medical Facilities and Equipment and Employee Performance

The test of hypothesis three for the coefficient of medical facilities and equipment was positive and significant with coefficient of 0.4554, z-stat of 0.1153 and a p-value of 0.001 respectively. The coefficient passed the significance test at the 0.05 per cent level. The result implies that medical facilities and equipment have significant effect on employee performance (quality service delivery) in Teaching hospital in Cross River and Akwa Ibom States, Nigeria. Healthcare workers rely heavily on adequate resources to perform their duties effectively, and any inadequacy in facilities can lead to frustration, delays in patient care, and increased job stress. The study by Chen et al. (2022) supports this finding, showing that workplace infrastructure plays a critical role in reducing stress levels and enhancing employee productivity. Similarly, Girma et al. (2021) found that the availability of functional medical equipment significantly reduces occupational stress and improves healthcare service quality. Aderibigbe et al. (2020) also emphasized that inadequate resources contribute to employee dissatisfaction and increased job strain, affecting overall performance outcomes. The implication of this finding is that healthcare institutions must prioritize the provision of adequate medical equipment and facilities to enhance employee efficiency and service delivery. Investments in medical infrastructure will not only reduce occupational stress but also improve patient satisfaction and health outcomes.

Role Conflict and Employee Performance

The coefficient of role conflict and the corresponding z-statistic showed that a positive and significant influence existed; based on the obtained values of {c = 0.5324, z = 0.1434 and a p-value of 0.001}. This result implies that role conflict significantly affects employee performance (quality service delivery) in Teaching hospital in Cross River and Akwa Ibom States, Nigeria. Role conflict often leads to confusion, reduced job satisfaction, and increased emotional exhaustion, making it difficult for employees to perform optimally. This finding is supported by the research of Malik and Björkqvist (2018), which revealed that unclear job expectations contribute to workplace stress and lower employee motivation. The study by Oni et al. (2024) further confirmed that healthcare providers experiencing high levels of role conflict are more likely to suffer from burnout, which negatively impacts their overall

performance. Additionally, Ethelmary et al. (2019) found that the absence of clearly defined job roles in Nigerian universities led to heightened workplace stress, reducing both job satisfaction and productivity.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study underscores the profound impact of occupational stress on employee performance within Teaching hospital in Cross River and Akwa Ibom State, Nigeria. The findings highlight critical factors that significantly influence employee efficiency, quality service delivery, patient outcomes, and mortality rates. These include workload pressures, long working hours, inadequate medical facilities and equipment and role conflicts. The study's results align with broader research trends indicating that workplace stressors can compromise healthcare delivery by affecting both individual well-being and organizational effectiveness. In the Nigerian healthcare settings characterized by resource constraints and high patient volumes, these stressors exacerbate challenges faced by healthcare workers. The evidence presented in this study reinforces the notion that occupational stress is a significant determinant of employee performance. Healthcare professionals operate in high-pressure environments where excessive workloads, extended working hours, inadequate medical facilities, and role conflict can contribute to heightened stress levels. If left unaddressed, these stressors may lead to burnout, diminished job satisfaction, and compromised patient care. Conversely, when effectively managed, healthcare workers are better positioned to perform optimally, leading to improved service delivery and patient outcomes. Given the critical nature of these findings, healthcare administrators and policymakers must prioritize interventions that mitigate occupational stress. Strategies such as workload redistribution, structured shift systems, adequate resourcing of medical facilities, and clear job role definitions should be integrated into institutional policies to foster a supportive work environment. These measures will not only enhance employee well-being but also strengthen the overall efficiency of healthcare institutions.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Healthcare institutions should establish effective workload management strategies to ensure a balanced distribution of tasks among employees. This can be achieved through periodic workforce assessments, strategic recruitment to fill staffing gaps, and the implementation of task delegation policies.
2. Management of healthcare institutions should develop and enforce structured work-hour policies that promote adequate rest periods and minimize prolonged shifts. Implementing a well-structured shift system, adhering to international best practices on working hours, and incorporating employee-centered scheduling models will help reduce fatigue and enhance overall productivity. Encouraging the adoption of flexible

work arrangements where feasible will further contribute to maintaining a healthy work-life balance for healthcare employees.

3. Substantial investment should be made in the provision and maintenance of medical facilities such as comprehensive wellness programs, access to resources that address both physical and emotional health and equipment such as Automated External Defibrillators (AEDS) to enhance workplace efficiency and reduce job-related frustration. Ensuring the availability of modern, functional medical tools and supplies will enable healthcare workers to perform their duties effectively, reduce stress related to resource inadequacy, and ultimately improve the quality of patient care. Additionally, management should establish a sustainable maintenance framework to prevent frequent equipment breakdowns that could hinder service delivery.
4. Clear job roles and responsibilities should be established to eliminate role conflict within healthcare institutions. Management should implement comprehensive job descriptions, provide regular training, and foster open communication channels to ensure that employees fully understand their roles and expectations.

Contribution to Knowledge

This study contributes to the body of knowledge by providing empirical evidence on the multidimensional impact of occupational stress on employee performance within Teaching hospital in Cross River and Akwa Ibom States, Nigeria. It advances existing research by contextualizing stressors such as workload, extended working hours, inadequate medical facilities, and role conflict within the Nigerian healthcare system, offering localized insights into their effects on efficiency, service quality, and patient outcomes. Unlike previous studies that focus primarily on general workplace stress, this research integrates employee performance metrics, highlighting the direct link between occupational stressors and critical healthcare outcomes, including mortality rates. Furthermore, the study underscores the necessity for policy reforms aimed at optimizing work conditions, enhancing resource availability, and reducing job-related conflict to improve employee well-being and institutional effectiveness. By bridging the gap between occupational stress and healthcare performance, this research provides a foundation for evidence-based interventions tailored to the unique challenges of healthcare institutions in Nigeria.

Suggestions for Future Research

Future research should explore additional occupational stressors beyond those examined in this study, such as workplace violence, emotional labor, and job insecurity, to provide a more comprehensive understanding of stress factors affecting healthcare professionals. Longitudinal studies should be conducted to assess the long-term impact of occupational stress on employee performance, patient outcomes, and workforce retention. Further studies could also adopt qualitative methodologies to gain deeper insights into the lived experiences of healthcare workers, highlighting coping mechanisms and adaptive strategies. Comparative

studies between public and private healthcare institutions would provide valuable insights into differences in stress levels and their effects on employee performance. Additionally, future research should investigate the moderating role of organizational support systems, such as employee assistance programs, flexible work arrangements, and mental health interventions, in mitigating the negative effects of occupational stress. Expanding the geographical scope beyond Cross River and Akwa Ibom States to a national or regional level would enhance the generalizability of findings.

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