

## Work Environment and Primary Health Care Facilities: A Phenomenological Study of Community Health Nurses' Experiences in Bauchi State, Nigeria

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### ABSTRACT

The purpose of this study was to investigate community health nurses' actual experiences with hazardous work conditions in PHC facilities in Bauchi State, Nigeria. The design adopted was a survey. A purposive sample of twelve community health nurses from government-owned PHC institutions in Bauchi State was taken. In-depth, semi-structured interviews were used to gather data, which were then subjected to thematic analysis within a phenomenological framework. Among the findings is exposure to occupational hazards, such as frequent needle stick injuries and unprotected contact with infectious materials. The results show poor occupational health governance in PHC settings, persistent resource limitations, and systemic neglect, with emphasis on gendered vulnerabilities, normalised hazards, and the lack of institutional safety and support structures. In conclusion, community health nurses in Bauchi State work in hazardous environments that pose a risk to their health and the quality of care they provide. Hence, integrated interventions are needed, such as improved infrastructure, regular distribution of personal protection equipment, violence prevention procedures, psychosocial support, and robust policy execution to protect nurses and increase the resilience of the PHC system.

**Keywords:** Primary health care, unsafe work environment, community health nurses, occupational hazards, workplace violence, phenomenological study.

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## INTRODUCTION

The foundation of Nigeria's healthcare system is Primary Health Care (PHC), yet hazardous work conditions undermine its efficacy. Due to their critical role in PHC delivery, community health nurses are especially vulnerable to psychosocial pressures, infrastructural shortcomings, and occupational hazards. Qualitative insights into their actual *experiences in PHC settings, however, are still lacking*. The cornerstone of Nigeria's healthcare system is Primary Health Care (PHC), which offers easily accessible, reasonably priced, and community-focused medical treatments through pragmatic, scientifically sound, and socially acceptable methods (David & Saraya, 2017; World Health Organization [WHO], 2016). Particularly in low- and middle-income nations, the performance of the health system as a whole and population health outcomes are significantly influenced by the efficacy of PHC services (Shangalia et al., 2015).

However, the safety and favourable conditions of the workplaces where healthcare personnel work are crucial to the effective provision of PHC services. A significant percentage of PHC employees are community health nurses, who are essential in providing maternity and child health care, disease prevention, minor sickness treatment and community health promotion (Langins et al., 2015). Despite their crucial significance, PHC facilities in Nigeria are frequently associated with hazardous work conditions, particularly in rural and semi-urban areas. These include inadequate security, unstable power supplies, outdated infrastructure, and a lack of necessary supplies and equipment, all of which put nurses at risk for workplace dangers and jeopardise the safety of both staff and patients (Segnon, 2014; Kadiri et al., 2018).

The delivery of high-quality healthcare has been severely hampered worldwide by a lack of qualified healthcare professionals and hazardous working circumstances, with developing nations being disproportionately impacted (Osai et al., 2016). Due to insufficient funding, unequal distribution of material and human resources, and poor health system governance, PHC development in Nigeria is still below par. According to Biddison et al. (2014) and Khoa et al. (2018), these issues contribute to increased workload, occupational stress, low job satisfaction, and demotivation among nurses, which results in poor retention and migration of qualified health staff. Poor Interprofessional relationships resulting from overlapping roles among nurses, community health extension workers, and other healthcare cadres further undermine the PHC work environment in Nigeria, in addition to physical safety concerns. Role conflict, unhealthy competition, and strained working relationships have been linked to poor role delineation, ineffective leadership, and weak dispute management mechanisms. These factors exacerbate the unsafe nature of the workplace and have a detrimental impact on teamwork and service delivery (Hack-Halloran, 2016; Bashir, 2018).

One of the most important factors influencing health workforce performance and service quality in primary health care (PHC) settings is the quality of work environment. Inadequate infrastructure, a lack of material resources, and a lack of human capital are some of the constraints that PHC facilities in Nigeria frequently face. The institutional constraints influence health professionals' choices regarding workplace location, retention, and job satisfaction (Okoroafor et al., 2023). In particular, PHC workplaces are frequently described by nurses and other frontline providers as stressful and underfunded, which has a direct impact

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on staff stability and continuity of service. Inadequate safety management systems, exposure to occupational violence, and psychosocial stresses are all aspects of workplace safety in PHC that go beyond the conventional concerns of physical infrastructure. According to a comprehensive analysis by Abrahams et al. (2023), healthcare professionals are more likely to experience workplace violence worldwide, especially in primary care settings with inadequate security and institutional reporting systems. The study highlights the complexity of "unsafe environments", which means there are both social and physical risks to worker safety.

Royal et al. (2025) investigated the experiences of nurses working in distant primary care clinics and found widespread safety issues - understaffing, a lack of necessary equipment, and inadequate infrastructure. In addition to increasing the risk of physical harm, these circumstances also increase the likelihood of burnout and turnover intentions among nurses. These results are consistent with more extensive occupational health research that links unfavourable work circumstances to worse professional well-being and subpar patient care. Recent research on PHC settings frequently highlights systemic obstacles like persistent understaffing, erratic supply chains for necessary medications, and restricted access to professional development. Nurses perceive these ongoing shortages as structural barriers that compromise their capacity to deliver safe and efficient treatment (Nesengani et al., 2025). The review emphasises how insufficient funding undermines nurses' feelings of professional competence and dedication to the PHC purpose, in addition to having an impact on clinical results.

Additionally, Ntuli (2025) investigated the lived experiences of nurses in basic healthcare settings on clinical problems through a phenomenological study. Although the study concentrated on the clinical management of diabetic foot problems, the narratives shed light on more general workplace pressures that represent systemic flaws in PHC work settings, such as insufficient training, a lack of supportive supervision, and a lack of resources. These stressors align with the idea that hazardous work environments are complex, encompassing organisational and professional aspects in addition to direct physical danger. Nurses' attitudes toward risk and their work experiences are greatly influenced by perceptions of safety culture and institutional support. According to Agyeman-Yeboah et al. (2024), frontline healthcare workers' perceptions of patient safety culture and unsafe settings are a result of inadequate safety policies, a lack of leadership commitment, and inefficient communication mechanisms. The study's conclusions are relevant to comprehending how organizational characteristics influence nurses' perceptions of workplace danger, even though it looked at safety culture in a broad sense. Together, these new findings highlight the fact that hazardous workplaces in PHC are multifaceted structures that span organisational, systemic, occupational, and structural dimensions rather than being isolated occurrences. These observations offer an empirical basis for investigating how community health nurses in Nigeria's Bauchi State perceive and manage hazardous work environments in their day-to-day job.

There is little qualitative data on community health nurses' actual experiences of hazardous work conditions at PHC facilities in Nigeria, despite the vital role they play in PHC delivery. To improve work conditions, increase occupational health and safety procedures, educate policy and raise the standard and sustainability of primary healthcare services, it is

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critical to comprehend these experiences. Hence, a phenomenological approach to investigate community health nurses' life experiences with hazardous work conditions in basic healthcare institutions in Bauchi State, Nigeria.

## **MATERIALS AND METHODS**

To investigate the experiences of community health nurses regarding hazardous work conditions in primary health care (PHC) institutions in Bauchi State, Nigeria, this study employed a qualitative phenomenological research approach. Because it enables a thorough comprehension of participants' subjective experiences, perceptions, and meanings associated with workplace safety within their natural practice environments, the phenomenological approach was deemed appropriate. The investigation was conducted in several primary healthcare institutions in the northeastern Nigerian State of Bauchi. PHC facilities serve as the initial point of contact for healthcare delivery in Bauchi State, encompassing both urban and rural local government areas. These facilities offer vital services, including illness prevention, health promotion, and maternity and child healthcare. Since many PHC facilities in the state have limited resources, they are appropriate for investigating problems pertaining to hazardous workplaces. The research population consisted of community health nurses employed in Bauchi State's government-owned primary healthcare facilities. These nurses are directly exposed to the organisational, psychological, and physical aspects of PHC workplaces as they actively participate in frontline service delivery. Those who had at least a year of experience working in a primary healthcare setting, were registered community health nurses or nurse-midwives employed in PHC institutions, were willing to participate, and gave informed consent were eligible to participate. The study excluded nurses who had less than a year of PHC experience or who were on extended leave.

To identify individuals who could provide valuable and pertinent information about hazardous work environments, a purposive sample strategy was employed. Sampling proceeded until data saturation was reached, which is the point at which subsequent interviews produced no new themes or insights. The study involved twelve (12) community health nurses in total. Semi-structured, in-depth interviews were used to gather data. Participants' perceptions of physical risks, security issues, insufficient resources, workload, interpersonal relationships, and coping mechanisms in relation to hazardous work environments were all examined during interviews. Face-to-face interviews in health facilities or other mutually convenient venues in a peaceful, private setting. Each interview was in English and lasted for forty-five minutes. Interviews were audio-recorded with participants' consent, and field notes were taken to document contextual observations and nonverbal clues.

Verbatim transcriptions of audio recordings were made, and their accuracy was double-checked. Thematic analysis was used to analyse the data using a phenomenological analytical method. After reading the transcripts several times to become comfortable with them, significant units were coded. Codes were categorised, and newly formed categories were then arranged into themes that represented the real-world experiences of nurses in hazardous workplaces. Iterative review was used to refine themes, and continual comparison was applied

across transcripts to improve rigour. To reduce researcher bias, reflexivity was upheld throughout the analysis.

The study received ethical approval from the relevant Research Ethics Committee. Approval was also requested from pertinent health authorities and primary healthcare institution management. Informed written consent was received from all participants before the commencement of data collection. Confidentiality and anonymity were maintained by employing pseudonyms and restricting access to data. Participants were informed that they could withdraw from the study without any penalties.

The study's trustworthiness was established through the characteristics of credibility, dependability, conformability, and transferability. Credibility was reinforced through extended involvement and member verification. Dependability and conformability were established by preserving an audit trail of research decisions and analytical procedures. Comprehensive and detailed descriptions were offered to facilitate transferability.

## RESULTS AND DISCUSSION

Analysis of the in-depth interviews with community health nurses showed comprehensive accounts of unsafe working situations within primary healthcare facilities in Bauchi State. Participants' narratives mirrored shared experiences of occupational dangers, infrastructural shortcomings, psychosocial pressures, and systemic neglect. Four primary themes emerged from the data: (1) Exposure to Occupational Hazards, (2) Inadequate Infrastructure and Safety Equipment, (3) Threats to Personal Security and Workplace Violence, and (4) Psychological Distress and Coping in Unsafe Settings.

### Theme 1: Exposure to Occupational Hazards

Participants consistently described frequent exposure to biological, chemical, and physical hazards in their daily work. Needle-stick injuries, contact with body fluids, and handling of infectious patients without adequate protection were commonly reported. Nurses expressed concerns about the risk of contracting communicable diseases, particularly in facilities with high patient turnover and limited infection prevention resources.

*"Sometimes you attend to patients with open wounds or bleeding without gloves because there are none available. You just pray nothing happens after that."* (Participant 4)

Several participants noted that waste disposal systems were poorly managed, increasing the risk of accidental injuries and environmental contamination within the facility.

### Theme 2: Inadequate Infrastructure and Safety Equipment

Most nurses highlighted severe infrastructural deficits that compromised their safety. These included dilapidated buildings, poor ventilation, and lack of clean water, erratic electricity supply, and absence of essential safety equipment such as gloves, masks, and sharps containers. Such conditions were described as normalised aspects of their work environment.

*“The building itself is unsafe; during the rainy season, water leaks into the consulting room, and the floor becomes slippery. Yet we still have to work.”* (Participant 7)

Participants emphasized that the lack of basic safety provisions made it difficult to adhere to standard infection prevention and occupational safety guidelines.

### **Theme 3: Threats to Personal Security and Workplace Violence**

Personal security emerged as a significant concern, particularly among nurses working in remote and rural facilities. Participants reported experiences of verbal abuse, intimidation by patients or relatives, and fear of physical harm due to the absence of security personnel.

*“There is no security here. If a patient’s relative becomes aggressive, you are on your own.”* (Participant 2)

Female nurses, in particular, expressed fear related to late working hours, isolated duty posts, and lack of secure accommodation, which heightened feelings of vulnerability within the workplace.

### **Theme 4: Psychological Distress and Coping in Unsafe Settings**

The unsafe working environment contributed to emotional exhaustion, anxiety, and chronic stress among participants. Nurses described constant fear of injury or infection, which negatively affected job satisfaction and morale. Despite these challenges, participants adopted personal coping strategies such as reliance on faith, peer support, and emotional resilience to continue providing care.

*“You feel stressed and worried every day, but as a nurse, you tell yourself you must keep going because the community depends on you.”* (Participant 10)

Some participants expressed feelings of neglect and undervaluation by health authorities, perceiving that their safety was not prioritized within the healthcare system.

This studied community health nurses experience dangerous work settings in primary health care (PHC) institutions in Bauchi State, Nigeria. The findings demonstrated varied occupational dangers, structural obstacles, threats to personal security, and psychological discomfort reflecting broader systemic challenges described in Nigeria and other low- and middle-income countries (LMICs).

Consistent with global research (Owie & Apanga, 2020), participants noted regular exposure to biological and physical dangers, including needle-stick injuries, contact with human fluids, and inadequate waste management. These experiences mirror documented occupational hazards among healthcare workers in Nigerian settings, where shortages of personal protective equipment (PPE) and weak infection prevention and control (IPC) systems place frontline workers at elevated risk (International Labour Organization, World Health Organization, & International Council of Nurses, 2022; World Health Organization, 2022). The normality of working without gloves or protective barriers, as described by participants,

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represents a broader culture of risk acceptance driven by chronic resource shortages. This condition not only endangers nurses' health but also raises the potential for cross-infection between health professionals and patients, weakening efforts toward safe healthcare delivery (International Labour Organization, World Health Organization, & International Council of Nurses, 2022). Participants' reports of old structures, inadequate ventilation, unpredictable water and electricity supply, and absence of basic safety equipment correspond with documented infrastructural shortcomings in PHC settings across Nigeria and West Africa (Akinwale, Adepoju, & Adebayo, 2023). These infrastructural limitations hinder adherence to IPC requirements and contribute to greater occupational stress, discontent, and impaired quality of care (Akinwale et al., 2023). The normalization of unsafe physical environments described by participants suggests systemic neglect of PHC infrastructure in resource-limited contexts and highlights the urgent need for targeted facility upgrades and sustained investment in basic safety equipment (International Labour Organization, World Health Organization & International Council of Nurses, 2022, 2022).

Threats to personal safety and occupational violence appeared as common issues, especially in rural and understaffed facilities. Nurses' experiences of verbal abuse, intimidation, and fear of physical threat are consistent with research demonstrating high frequency of workplace violence against healthcare professionals in Nigeria and across Africa (Fawole, Oladoyinbo & Aderonmu, 2022; Joseph, Joseph, & John, 2021). Workplace violence has been connected to poor job satisfaction and psychological burden among nurses (Afulani et al., 2018). Female nurses' heightened sense of vulnerability—linked to late working hours, isolation, and lack of secure accommodation—reflects gendered vulnerabilities within the health workforce and underscores the need for focused preventive tactics and security protocols (Fawole et al., 2022; Joseph et al., 2021).

The psychological effects of unsafe work conditions reported by participants, such as chronic stress, anxiety, and emotional exhaustion—resonate with broader evidence showing that unsafe work environments and high psychosocial demands contribute to mental health challenges among nurses (Kumakech, Achora, Berggren, & Bajunirwe, 2023). Work-related stress, including fear of infection or violence, has been associated with diminished patient safety culture and increased burnout (Kumakech et al., 2023). Participants' reliance on personal coping mechanisms such as faith and peer support reflects adaptive responses in contexts where institutional psychological support systems are limited highlighting the importance of supportive interventions and organizational strategies that address psychosocial hazards (Kumakech et al., 2023).

Across all themes, participants voiced a sense of neglect by health authorities, referring to shortcomings in policy implementation, safety oversight, and budget allocation. This fits with broader concerns of occupational health governance in LMICs, where insufficient enforcement of safety norms and low health system investment leave frontline workers exposed (World Health Organization, 2020; World Health Organization, 2022). The findings underscore the need for comprehensive strategies at both the facility and policy levels, such as strengthening IPC infrastructure, ensuring consistent supply of PPE, implementing workplace

violence prevention protocols, and establishing psychosocial support mechanisms, to improve safety and wellbeing in PHC settings.

## CONCLUSION

This phenomenological study demonstrated that community health nurses in primary health care institutions in Bauchi State, Nigeria, face numerous characteristics of dangerous working settings that impact both their wellbeing and the quality of care provided. The data reveal that occupational dangers, infrastructural shortcomings, workplace violence, and psychological discomfort are fundamentally interrelated and sustained by institutional neglect and inadequate resource allocation. Despite these problems, nurses displayed resilience and continued to offer critical services, often depending on personal coping techniques in the lack of institutional assistance. Addressing dangerous working environments in PHC settings is critical not only for preserving nurses' health and safety but also for strengthening the primary health care system and improving population health outcomes.

## RECOMMENDATIONS

- i. Strengthen occupational health and safety systems by implementation of IPC regulations and regular training.
- ii. Improve infrastructure and supply of PPE to ensure safe work conditions.
- iii. Enhance workplace security by implementing violence prevention measures and reporting methods.
- iv. Provide psychosocial support such as counseling and peer support for nurses.
- v. Improve governance and accountability to ensure consistent resource allocation and nurse engagement in decision-making.

### ***Contribution to the Body of Knowledge:***

*This study adds to current knowledge by giving qualitative, context-specific insights into the experiences of community health nurses in primary health care facilities in Bauchi State, Nigeria. It demonstrates how occupational dangers, infrastructure shortfalls, workplace violence, and psychological anguish are normalized within PHC settings, exposing systemic neglect and governance failings. The study also underlines gendered vulnerabilities, particularly among female nurses in rural locations, and demonstrates how nurses rely on personal resilience and coping techniques in the lack of institutional support. These findings enhance current literature by concentrating on primary care environments in LMICs and inform policy and practice approaches aiming at increasing safety, wellbeing, and service quality in PHC settings.*

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