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Factors Influencing Safety Management Practices Among Public Health Workers in Ado-Ekiti, Ekiti State, Nigeria

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Abstract
Safety at work is one key issue in public hospitals. Effective safety management practices help public health workers fight against infections, injuries and accidents in public hospitals. This study aims to assess the factors influencing safety management practices among public health workers in Ado-Ekiti, Ekiti State, Nigeria. A survey research design which involves the use of structured questionnaire was used to collect data. The study obtained a sample size of 322 participants from a population of 1639 health institution employees from Ekiti State University Teaching Hospital (EKSUTH) and Oba Adejuyigbe General Hospital (OAGH) in the study area, the selection of the participants was based on stratified random sampling technique. The data collected were analysed using descriptive statistics. Findings indicated that the top factors influencing safety management practices among public health workers are personal adherence to safety protocols, organizational support, and adequacy of safety equipment. The study concludes that personal adherence to safety protocols, organizational support for reporting safety concerns, and the provision of adequate safety equipment play crucial roles in shaping effective safety management. Additionally, comprehensive safety training was found to

increase workers' awareness, confidence, and preparedness for handling emergencies, ultimately leading to enhanced job performance. Hence, this study recommends that managers of healthcare organizations should focus on improving safety training programs by ensuring that training sessions are comprehensive, practical, and relevant to the specific risks encountered by health workers; by designing training modules that address real-world scenarios, encourage active participation, and include regular refreshers to keep workers up-to-date with the latest safety protocols.

Keywords: Safety, management, practices, public health, public health workers

Introduction

Public health workers such as physicians, nurses, community health workers, laboratory technicians and support staff are personnel who play an important role in helping and maintaining the well-being of individuals and communities. However, the kind of work they engage in exposes them to different types of occupational hazards, which can seriously affect, their health, safety, and overall performance negatively (Iavicoli *et al.,* 2018).

Occupational hazards in the healthcare setting are of many aspects and can include exposure to infectious diseases, musculoskeletal disorders, workplace violence, and psychological stress (Jehu *et al.*, 2021; Oladeinde *et al.,* 2015). These dangers can have several consequences for public health workers, leading to absenteeism, decreased productivity, burnout, and increased healthcare costs (Mossburg *et al.*, 2019; Ulutaşdemir *et al.,* 2015)**.** In Nigeria, the public health sector faces a lot of challenges which includes lack of sufficient funding, limited number of public health workers, and limited equipment needed in various public hospitals. (Summit *et al.,* 2003)**.** These situations are compounded by the presence of occupational hazards, which can further limit the performance and well-being of public health workers (Asaolu & Abionna, 2023). Ensuring occupational health and safety remains the biggest challenge for practitioners and theorists alike (Clarke, 2010; Rahmania Lestari *et al.,* 2022; Zohar, 2010).

Safety management consist a range of strategies and interventions aimed at identifying, assessing, and controlling

potential risks, as well as fostering a culture of safety within the workplace (Bautista-Bernal *et al.*, 2024). Safety management practices can include risk assessment, implementation of hazard, effective control measures, provision of personal protective equipment (PPE), safety training and education, and the establishment of good reporting and monitoring systems (Liu *et al.*, 2023). The importance of safety management practices in curbing occupational hazards and promoting a safe work environment cannot be overemphasized.

However, the implementation of safety management practices in the Nigeria public health sector has been impeded by various factors, such as limited resources, inadequate training, and a lack of comprehensive safety policies and regulations (FGN & ILO, 2016). As a result, so many public health workers in Nigeria continue to face serious occupational risks, which can reduce their performance and the quality of healthcare services rendered to the populace. Based on this, while connecting safety management with public health workers in the health sector, it is crucial to carry out a study in this regard to assess the factors influencing safety management practices among public health workers in Ado-Ekiti, Ekiti State, Nigeria.

Statement of the Problem

Public health workers are at the forefront of promoting and safeguarding the well-being of communities. However, their ability to perform their duties effectively can be significantly impacted by various occupational hazards and inadequate safety management practices (Jehu et al., 2021; Tinubu et al., 2010). In developing countries like Nigeria, the public health workers often grapple with challenges in implementing comprehensive safety measures, which can have far-reaching consequences for healthcare workers, the quality of service delivery, and ultimately, public health outcomes. Infectious diseases is a significant risk to public health workers, particularly in resource-constrained settings where personal protective equipment (PPE) and proper infection control measures may be lacking. Exposure to pathogens such as HIV, hepatitis B and C, and tuberculosis can have severe consequences for the health and well-being of workers, potentially leading to absenteeism, decreased productivity, and increased healthcare costs (McDiarmid, 2014; Mossburg et al., 2019).

Musculoskeletal disorders, such as back pain, neck pain, and repetitive strain injuries, are also prevalent among healthcare workers due to the physically demanding nature of their work, which often involves lifting, transferring, and

positioning patients (Tinubu et al., 2010). These injuries can lead to chronic pain, disability, and reduced work performance, ultimately impacting the quality of care provided to patients. Workplace violence, including physical assault, verbal abuse, and emotional harassment, is another significant concern for public health workers around the world (Lim et al., 2022; Rossi et al., 2023). Such incidents can have profound psychological effects, contributing to stress, anxiety, and burnout, which can further compromise the performance and well-being of healthcare workers.

Therefore, this study assessed factors influencing safety management practices among public health workers in Ado-Ekiti, Ekiti State, Nigeria with a view to improving their performance.

Aims and Objectives

The general objective of the study is to assess factors influencing safety management practices with a view to improving the performance of public health workers in Ado-Ekiti, Ekiti State, Nigeria. The specific objective of the study is to:

i. assess the factors influencing safety management practices among public health workers in Ado-Ekiti.

Literature Review

Concept of Safety Management Practices

Safety management practices are the procedures, policies and actions that organizations put in place to make sure their workers are safe from getting injured or sick when carrying out their responsibilities at their workplace. (Wacter & Yorio, 2014). The main goal is to identify possible dangers or hazards in the workplace and then find solution to get rid of those dangers and make them less risky. Safety management practices enable organizations to reduce the chances of accidents, injuries, and near misses (Vinodkumar & Bhasi, 2011).

In practice, the process of ensuring safety management is pretty wide. It involves activities such as checking for risks and hazards on a regular basis (risk assessments), training workers on how to discharge their responsibility safely and making available proper protective equipment like hard hats, goggles, gloves etc. (Chen & Reniers, 2020; Kritzinger, 2006). Others include putting in place clear safety rules, policies and procedures that workers must adhere to, investigating accidents or near-misses to find out what went wrong, and promoting an overall culture of safety within the organization (Chen & Reniers, 2020; Kritzinger, 2006; Rajapakse, 2017).

Depending on the occupation and workspace, safety management practices are provided to combat different hazards. In the public health sector, such hazards include biological, chemical, physical, ergonomic, psychosocial and environmental hazards (McDiarmid, 2014b). Biological hazards include exposure to infectious diseases like HIV, hepatitis, tuberculosis from contact with patients' bodily fluids, and contaminated instruments while chemical hazards are exposure to hazardous drugs, chemicals used for cleaning, disinfecting, and sterilization procedures. Physical hazards such as injuries from needles/sharps, slips, trips and falls, musculoskeletal issues from lifting patients, fire risks, radiation exposure are also possible in public health work environment. Others are ergonomic hazards such as injuries from poor workplace design like awkward postures, repetitive motions and psychosocial hazards which include but not limited to workplace violence, stress, burnout, long work hours. Environmental hazards like exposure to air contaminants and poor ventilation systems are part of the challenges facing public health workers. These hazards not only threaten workers' physical safety, it also reduces their mental and emotional wellbeing by causing stress, thereby leading to low work efficiency and increased risk in community health (Ali Sabri *et al.*, 2022; McDiarmid, 2014b).

Public Health Workers

A public health worker is a professional who focuses on the overall health of communities rather than being satisfied with treating just individual patients (Otok *et al*., 2018). Their role involves various aspects of public health, including education, prevention, and advocacy (Otok *et al.*, 2018; Yusriani *et al.*, 2019). Public health workers mostly work for government agencies or healthcare providers and some of their works involves educating individuals, families, and groups of people about health issues and preventive measures. They also give suggestions and tell patients about the best support services for their problem(s). Their work includes a wide range of settings and responsibilities, all aimed at improving the well-being of the populace. They are committed to promoting health, preventing diseases and enhancing the quality of life for entire communities (Otok *et al.*, 2018).

Empirical Review

The study of Magalhães *et al.* (2022) on occupational health and safety explored factors influencing safety compliance among workers, which can be valuable for

public health organizations. The study employed an exploratory-descriptive, cross-sectional documentary, quantitative, and retrospective research, in the historical series: 2011 to 2015. One crucial factor identified is the availability and accessibility of medical expertise within the workplace. When employees have access to qualified medical professionals who understand the specific risks and challenges associated with their job, they are more likely to trust and comply with safety protocols and recommendations. Additionally, the study highlighted the importance of employee education and awareness regarding occupational health and safety measures, which can further promote safety compliance among public health workers.

Also, Zhou *et al.* (2023) in a study titled 'Grounded theory-based analysis of occupational health and safety management modes in supply chain by core enterprises-evidence from China' used the grounded theory method to conduct an analysis of occupational health and safety management modes within the supply chain of core enterprises. They adopted semi-structured interview method. The interview involved a total of 16 persons with 210,000 words of interview scripts obtained. The evolution model of occupational health and safety management mode in the supply chain by core enterprises was established after three coding process of the grounded theory was done. The findings from the study indicated that core enterprises currently employ three modes of occupational health and safety management for their suppliers: defensive mode, passive mode, and strategic mode.

Furthermore, Lari (2024) examined a longitudinal study on the impact of occupational health and safety practices on employee productivity. The study was conducted using a mixed method of both qualitative and quantitative data approach. A total of 293 employees before and after the OHS interventions. The results of the study revealed that OHS interventions can enhance work place ambiance and also boost the productivity of the employees. In addition to this, they also reported that there was a direct link between improved OHS practices and heightened productivity.

Methodology

This study adopted a survey research design which involves the use of structured questionnaire for data collection. The study obtained a sample size of 322 participants from a population of 1639 health institution employees from Ekiti State University Teaching Hospital and (EKSUTH) and Oba Adejuyigbe General Hospital (OAGH) in the study area, including both senior and junior staffs, the selection of the participants was based on stratified random sampling technique. The questionnaire was made up of two parts which contain questions relating to demography of the respondents and factors influencing safety management practices among public health workers. The indicators for each of the construct employed a 5-point Likert scale, where 1 =never, 2 = rarely, 3 = sometimes, 4 =

often, 5 = always. The data collected were analysed using descriptive statistics on Statistical Package for Social Sciences (SPSS) software.

Results and Discussion

Response Rate

A total of 322 copies of questionnaire were randomly administered among the respondents. 322 copies were retrieved, dully filled and considered valid for the purpose of this research.

Factors Influencing Safety Management Practices among Public Health Workers

Table 1 shows the results of the factors influencing safety management practices among public health workers. It includes the percentage distribution, mean values, and standard deviations of responses to various safety management factors, along with their rank and corresponding remarks. The first factor, personal adherence to safety protocols provided, recorded the highest mean score of 4.04, indicating that this factor significantly influences safety management practices. A notable 41.3% of respondents reported "Always" adhering to safety protocols, with a combined 70.2% selecting "Often" or "Always." This suggests that personal commitment to following safety protocols is highly valued among respondents. The standard deviation of 0.988 suggests low variability in responses, indicating consistency among participants in this regard.

Organizational support for workers who report safety concerns ranked second, with a mean score of 3.63. Here, 58.1% of respondents indicated that they "Often" or "Always" experience organizational support. This high mean value underscores the importance of a supportive organizational environment in encouraging adherence to safety practices. The standard deviation of 1.109 suggests slightly more variability in responses compared to the first factor. The adequacy of safety equipment provided in the workplace ranked third, with a mean score of 3.58. A substantial 52.5% of respondents felt that safety equipment was "Often" or "Always" adequate, though 16.8% of respondents indicated that it was "Rarely" adequate, pointing to some room for improvement. The standard deviation of 1.091 indicates moderate variability in perceptions regarding the adequacy of safety equipment.

The frequency of safety incident or hazard reporting follows with a mean score of 3.51. A total of 50% of respondents reported that safety incidents are "Often" or "Always" reported, while 22.7% indicated "Rarely" or "Never." The relatively high mean suggests that safety incident reporting is a regular practice, though there are some respondents who may not always engage in this practice. The standard deviation of 1.218 reflects some variation in the consistency of reporting behavior.

Enforcement of safety training protocols in the workplace ranked fifth with a mean of 3.48. About 25.8% of respondents "Always" observe the enforcement of these protocols, while 32.6% noted that enforcement is only "Sometimes" present. This

indicates that enforcement, while generally perceived as adequate, could benefit from more consistency. The standard deviation here is 1.158, suggesting a moderate variation in the responses.

The belief that the workplace environment is safe from physical hazards recorded a mean of 3.44, with 50.6% of respondents feeling that their workplace is "Often" or "Always" safe. However, 10.2% felt that it is "Never" safe, which could indicate that a minority of respondents perceive significant risks in their work environment. The relatively high standard deviation of 1.303 indicates a broader range of perceptions about workplace safety. Effectiveness of safety training sessions in the workplace received a mean score of 3.42, with 44.4% of respondents indicating that safety training is "Often" or "Always" effective. Nonetheless, 15.5% of respondents felt that the training was "Rarely" effective, indicating that the quality or delivery of safety training could be enhanced. The standard deviation of 1.074 suggests relatively lower variability in responses compared to other factors.

Updating organizational safety practices in response to external regulation scored a mean of 3.40, ranking eighth overall. A total of 49.7% of respondents reported that safety practices are updated "Often" or "Always," although 16.5% felt that updates were "Rarely" made. This factor, classified as "Moderately High," suggests that while there is responsiveness to external changes, more frequent updates could be beneficial. The impact of environmental factors on personal adherence to safety practices ranked ninth with a mean of 3.30. While 40.4% of respondents selected "Sometimes" as their response, 39.7% felt that environmental factors "Often" or "Always" impacted adherence. This suggests that the environment plays a significant, though not overwhelming, role in influencing safety practices. The standard deviation of 1.084 indicates moderate variability in responses.

The influence of external regulation on personal safety practices ranked tenth with a mean score of 3.29. While 32% of respondents felt that external regulation "Sometimes" influences their practices, 11.8% indicated "Never," highlighting that external regulations may not always be a determining factor for some individuals. The higher standard deviation of 1.241 indicates greater variability in responses for this factor. Frequency of safety training sessions in the organization recorded a mean of 3.13, suggesting that safety training occurs less frequently than desired. A total of 40.7% of respondents indicated "Sometimes," while only 12.1% reported that training sessions are "Always" frequent. The standard deviation of 1.080 reflects moderate variability in the frequency of these training sessions.

Finally, public perceptions of safety had the lowest mean score of 3.03, with 15.5% of respondents indicating "Never" and 19.3% selecting "Rarely," suggesting that public perception is not a significant factor for a large portion of respondents. The relatively high standard deviation of 1.281 reflects variability in how respondents perceive the influence of public opinion on their daily safety practices. The overall grand mean for the factors is 3.44, which falls within the "High" category, indicating that most factors have a significant influence on safety management practices among public health workers in the study area. However, certain areas,

such as the frequency of training sessions and the influence of public perceptions, might require additional focus to enhance overall safety practices.

Table 1: Factors Influencing Safety Management Practices among Public Health Workers

Factors Influencing Safety Management Practices among Public Health Workers	Never	Rarely	Sometimes	Often	Always	Mean	Std. Deviation
Personal adherence to safety protocols provided.	1.6%	4.7%	23.6%	28.9%	41.3%	4.04	0.988
Organizational support for workers who report safety concern.	4.3%	11.5%	26.1%	32.9%	25.2%	3.63	1.109
Adequacy of safety equipment provided in workplace.	1.6%	16.8%	29.2%	26.7%	25.8%	3.58	1.091
Frequency of safety incidence or hazard reporting.	5.0%	17.7%	27.3%	21.1%	28.9%	3.51	1.218
Enforcement of safety training protocol in workplace.	4.0%	16.5%	32.6%	21.1%	25.8%	3.48	1.158
Belief that workplace environment is safe from physical hazards.	10.2%	14.0%	25.2%	23.0%	27.6%	3.44	1.303
Effectiveness of safety training sessions in workplace.	3.4%	15.5%	36.6%	24.8%	19.6%	3.42	1.074
Updating organizational safety practices in response to changes in external regulation.	5.9%	16.5%	28.0%	31.4%	18.3%	3.40	1.137
Impact of environment factors on personal adherence to safety practices.	6.2%	13.7%	40.4%	23.9%	15.8%	3.30	1.084
Influence of external regulation on personal safety practices.	11.8%	11.5%	32.0%	25.2%	19.6%	3.29	1.241
Frequency of safety training sessions in organization.	7.5%	18.0%	40.7%	21.7%	12.1%	3.13	1.080
Public perceptions of safety.	15.5%	19.3%	26.7%	23.9%	14.6%	3.03	1.281

Source: Researcher's field survey (2024)

Discussion of Findings

The findings indicate that several factors significantly influence safety management practices among public health workers. The results highlight the importance of personal adherence to safety protocols, organizational support, and

adequacy of safety equipment, which align with earlier studies that emphasize the importance of individual commitment and institutional backing in promoting a safety culture (Mearns & Reader, 2008; Neal & Griffin, 2006; Zhang et al., 2020). The high mean scores for personal adherence and organizational support suggest that health workers' safety practices are reinforced when they understand clear protocols and receive adequate institutional encouragement.

The results indicate that factors like the frequency of safety incident reporting and the enforcement of safety training protocols are important to effective safety management practices. These findings are in order with previous literature indicating that regular incident reporting and protocol enforcement contribute to heightened safety awareness and proactive risk management (Loh et al., 2019; Pousette et al., 2017). However, the differences in responses regarding the consistency and deliberate enforcement and safety reporting indicate the need for more systematic and structured approaches.

The results regarding safety workplace, perceptions and the training effectively reveal that while most respondents feel secure, a small number still perceives physical risks. This observation corroborates with Clarke (2010), who observed that while safety training is generally effective, occasionally, there are gaps in the quality or consistency of training that can impact workers' perceptions of their safety. In addition to this, the difference responses on updating safety practices in response to external regulations indicate an area for improvement, reinforcing that regular updates and compliance with external standards are important for maintaining an effective and good safety culture (Vinodkumar & Bhasi, 2011).

The external regulations and environmental factors moderate impact suggests that while external guidelines are important, internal management and context-specific practices mostly have influence in shaping safety behaviors. This is in line with research by DeJoy et al. (2004), who found that external regulatory frameworks are most effective when align with internal safety strategies tailored to the organization's specific context. Overall, the findings from this study underscore the multifaceted nature of safety management practices, which depend on a combination of personal, organizational, and external factors. These results contribute to the body of literature on occupational safety in healthcare settings and show that finding solution to inconsistencies in training frequency and enhancing communication of safety practices could further improve overall safety outcomes among public health workers.

Conclusion and Recommendations

This study explored the factors safety management practices among public health workers in Ado-Ekiti, Ekiti State, Nigeria. The findings from this study established that personal adherence to safety protocols, organizational support for reporting safety concerns, and the provision of adequate safety equipment play crucial roles in shaping effective safety management. Additionally, comprehensive safety training was found to increase workers' awareness, confidence, and preparedness for handling emergencies, ultimately leading to enhanced job performance. Clear communication and consistent enforcement of safety procedures further reinforced workers' trust in their organizations, promoting adherence to safety measures. Hence, this study recommends that managers of healthcare organizations should focus on improving safety training programs by ensuring that training sessions are comprehensive, practical, and relevant to the specific risks encountered by health workers; by designing training modules that address real-world scenarios, encourage active participation, and include regular refreshers to keep workers up-to-date with the latest safety protocols.

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