

Compliance with Occupational Safety and Health (OSH) Practices Among Healthcare Workers in Laoag City, Ilocos Norte: Development of an Improvement Plan

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ABSTRACT

Occupational Safety and Health (OSH) practices are essential for protecting healthcare workers and ensuring safe healthcare delivery. This study assessed the level of compliance with OSH practices among healthcare workers in Laoag City, Ilocos Norte and developed an improvement plan based on the findings. A quantitative descriptive-correlational design was conducted among 52 healthcare workers using a validated researcher-made questionnaire (Cronbach's $\alpha = 0.899$). Descriptive statistics, Spearman's rank-order correlation, and Fisher's exact test were used for data analysis. Overall OSH compliance was very high ($M = 4.29$). Healthcare waste management ($M = 4.75$) and injury and exposure reporting ($M = 4.45$) demonstrated very high compliance, whereas personal protective equipment ($M = 4.17$), psychosocial well-being ($M = 4.11$), and OSH training and orientation ($M = 4.00$) showed high compliance. Age was significantly associated with OSH training and orientation ($p = 0.302$, $p = 0.030$), while sex and years of service were not significantly associated with OSH compliance. These findings informed an evidence-based improvement plan to strengthen workplace safety and sustain OSH compliance among healthcare workers.

Keywords: compliance, healthcare workers, improvement plan, occupational safety and health, workplace safety

INTRODUCTION

Occupational Safety and Health (OSH) is essential for protecting healthcare workers from occupational hazards and ensuring the delivery of safe, high-quality healthcare services (World Health Organization [WHO], 2022). Despite existing occupational safety and health policies, healthcare workers remain exposed to biological, chemical, ergonomic, and psychosocial hazards that necessitate sustained compliance with workplace safety practices (International Labour Organization [ILO], 2021; WHO, 2022). Previous studies have shown that organizational support, resource availability, and workplace safety culture influence compliance with OSH practices (Garcia & Lu, 2019; Alfaro et al., 2020; Hämäläinen et al., 2021). However, evidence on OSH compliance among healthcare workers in local government health facilities, particularly in Laoag City, Ilocos Norte, remains limited. This study therefore assessed the level of compliance with OSH practices among healthcare workers in Laoag City and examined the relationship between selected demographic characteristics and OSH compliance to provide evidence for developing an improvement plan.

Statement of the Problem

This study determined the level of compliance with OSH practices among healthcare workers in Laoag City, Ilocos Norte. Specifically, it described the respondents' demographic characteristics, assessed compliance across five OSH domains, examined the relationship between selected demographic characteristics and OSH compliance, and developed an evidence-based improvement plan.

Scope and Delimitations

The findings are limited to healthcare workers in the selected public health facilities of Laoag City and may not be generalizable to private healthcare institutions or other geographic settings. Additionally, the use of self-reported responses may have introduced response bias despite measures taken to ensure anonymity and confidentiality.

Review of Related Literature

Occupational Safety and Health (OSH) compliance is influenced by organizational support, workplace safety culture, resource availability, and continuous safety training. Previous studies have shown that adequate PPE, effective infection prevention measures, and supportive leadership improve compliance, whereas inadequate resources and weak institutional support reduce adherence to occupational safety practices (Bekele et al., 2020; Kakemam et al., 2022; Lee et al., 2019).

Although demographic factors have been associated with OSH compliance, findings remain inconsistent. Evidence from Philippine public healthcare facilities remains limited, particularly in local government health units, highlighting the need for localized studies to guide evidence-based workplace safety interventions (Garcia & Lu, 2019; Reyes & Santos, 2019).

Theoretical Framework

This study was anchored on the Health Belief Model and Safety Culture Theory, which explain that compliance with occupational safety practices is influenced by individual perceptions of occupational risk as well as organizational commitment to workplace safety (Rosenstock, 1974; Reason, 1997).

Conceptual Framework

The conceptual framework of this study states the relationship between the respondents' demographic characteristics (age, sex, profession, and years of healthcare service) and their level of compliance with OSH practices. OSH compliance was assessed across five domains: PPE use, psychosocial well-being and mental health support, healthcare waste management, injury and exposure reporting, and OSH training and orientation. The demographic variables served as the independent variables, while the level of OSH compliance served as the dependent variable. The findings of the assessment provided the basis for the development of an evidence-based OSH improvement plan for healthcare workers in Laoag City.

METHODOLOGY

Research Design and Participants

This quantitative descriptive-correlational study was conducted among 52 healthcare workers from the City Health Office of Laoag City and its affiliated Rural Health Units. Using total enumeration, all eligible healthcare workers participated in the study.

Research Instrument and Data Collection

Data were collected using a researcher-developed questionnaire based on Department of Labor and Employment OSH standards (2018), the Department of Health Infection Prevention and Control Guidelines (2022), and Health Care Waste Management Manual (2022). The instrument comprised two sections: respondents' demographic profile and compliance with OSH practices in five domains: PPE, psychosocial well-being and mental health support, healthcare waste management, injury and exposure reporting, and OSH training and orientation. Content validity was established through expert review by three specialists, while pilot testing yielded an overall Cronbach's alpha coefficient of 0.899, indicating excellent reliability. Institutional permission and informed consent were obtained prior to data collection,

and confidentiality and anonymity of participants were strictly maintained throughout the study.

Statistical Analysis and Ethical Considerations

Descriptive statistics were used to summarize the respondents' characteristics and level of OSH compliance. Spearman's rank-order correlation was employed to determine the relationship between age and years of healthcare service and OSH compliance, while Fisher's exact test was used to examine the association between categorical demographic variables and compliance. Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS), with the level of significance set at $p < 0.05$. Ethical approval was obtained from the St. Bernadette of Lourdes College Ethics Review Board, and the study adhered to the principles of voluntary participation, informed consent, confidentiality, and the Data Privacy Act of 2012 (Republic Act No. 10173).

RESULTS AND DISCUSSION

SOP 1. What is the demographic profile of healthcare workers in Laoag City, Ilocos Norte by age, sex, profession, and years of service in healthcare?

The respondents had a mean age of 39.15 ± 9.54 years and were predominantly female (78.8%), with nurses comprising the largest professional group (55.8%). The mean length of healthcare service was 10.85 ± 8.77 years.

SOP 2. What is the level of compliance on occupational safety and health (OSH) practices among the healthcare workers with respect to PPE compliance, psychosocial well-being and mental health support, healthcare waste management, injury exposure and reporting, and OSH training and orientation?

The overall level of compliance with OSH practices was very high ($M = 4.29$, $SD = 0.42$). Among the five domains, healthcare waste management obtained the highest compliance rating ($M = 4.75$, $SD = 0.33$), followed by injury and exposure reporting ($M = 4.45$, $SD = 0.62$). Compliance was rated high for PPE ($M = 4.17$, $SD = 0.58$), psychosocial well-being and mental health support ($M = 4.11$, $SD = 0.60$), and OSH training and orientation ($M = 4.00$, $SD = 0.85$). These findings indicate that healthcare workers consistently adhere to established workplace safety practices while highlighting opportunities to further strengthen training participation and psychosocial support initiatives.

The high compliance observed in healthcare waste management and injury reporting reflects the effectiveness of existing institutional policies and regulatory enforcement. Similar findings have been reported by Bekele et al. (2020) and Lee et al. (2019), who emphasized that organizational support, adequate resources, and continuous monitoring contribute significantly to adherence to occupational safety practices. Conversely, the comparatively lower scores for OSH training and psychosocial support suggest that these areas require sustained investment despite the overall favorable compliance level. Previous studies have likewise shown that continuous education, supportive leadership, and workplace wellness programs are essential in maintaining long-term compliance with occupational safety standards (Kim, 2021).

SOP 3. Is there a significant relationship between the demographic profile of healthcare workers and their level of compliance with OSH practices?

Correlation analysis revealed that age was significantly associated with compliance in OSH training and orientation ($\rho = 0.302$, $p = .030$), indicating that older healthcare workers tended to demonstrate greater compliance with training-related activities. In contrast, sex, profession, and years of healthcare service showed no significant relationship with overall OSH compliance, suggesting that adherence to occupational safety practices was generally consistent across the healthcare workforce. These findings imply that organizational factors, such as institutional support, safety policies, and workplace safety culture, may have a greater

influence on OSH compliance than demographic characteristics, consistent with the findings of Denge and Rakhudu (2022) and Lorenzini et al. (2021)

CONCLUSION

Healthcare workers demonstrated a very high level of compliance with OSH practices. Age was significantly associated with compliance in OSH training and orientation, whereas other demographic characteristics were not. Sustaining organizational support and continuous safety programs is recommended to maintain high OSH compliance

RECOMMENDATIONS

Healthcare administrators should sustain OSH compliance through continuous training, psychosocial support, and regular monitoring. Future studies should include more diverse healthcare settings and investigate additional factors associated with OSH compliance.

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AI DECLARATION STATEMENT

ChatGPT[®] and QuillBot[®] were used solely for language editing and manuscript refinement. All study design, data collection, statistical analyses, interpretation, and scholarly decisions were performed by the author, who assumes full responsibility for the content.

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