

STRESS AND OCCUPATIONAL RISKS AMONG NURSES WORKING IN A GOVERNMENT INSTITUTION IN QUEZON CITY: STRENGTHENING SUPPORT SYSTEMS

*Marie Grace Lladoc

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Corresponding Author: Marie Grace Lladoc; doi:10.46360/globus.met.320261010

Abstract

Occupational stress and workplace risks among nurses have become significant concerns affecting both healthcare delivery and workforce sustainability. Nurses working in government institutions are particularly exposed to demanding work environments characterized by high workload, limited resources, and structured operational constraints. This study aimed to determine the levels of occupational stress and occupational risks among nurses working in a government institution in Quezon City and examine the relationship between these variables. The study employed a quantitative descriptive-correlational research design. A total of 148 nurses were selected from a population of 240 using stratified proportionate sampling. Data were collected using a three-part questionnaire consisting of demographic profile, a modified Nursing Stress Scale (NSS), and selected domains of the Copenhagen Psychosocial Questionnaire (COPSOQ III). Statistical tools such as frequency, percentage, composite mean, and Pearson r correlation were used to analyze the data at a 0.05 level of significance. The study concludes that nurses working in government institutions experience high levels of stress and occupational risk, which are significantly interrelated. These findings highlight the need for strengthened institutional support systems, improved workload management, and enhanced workplace policies to promote nurse well-being and ensure quality healthcare delivery.

Keywords: Occupational Stress, Occupational Risk, Nurses, Government Institution, Workload, Decision-Making, Support Systems.

Introduction

A competent and resilient nursing workforce is essential to the sustainability and effectiveness of healthcare systems worldwide. However, occupational stress and workplace risks continue to threaten the well-being of nurses and the quality of care they provide. Globally, nurses are exposed to high levels of psychological strain, including emotional exhaustion, depersonalization, and reduced personal accomplishment - key indicators of burnout that significantly impact healthcare delivery (Maslach & Jackson, 1981). Recent studies highlight that occupational stress among nurses is associated with decreased job satisfaction, increased turnover intention, and compromised patient safety outcomes (Aiken et al., 2018; Dall'Ora et al., 2020).

The issue becomes more critical in developing countries where healthcare systems face structural and resource limitations. In the Philippines, nurses experience significantly high levels of stress due to understaffing, heavy workloads, and limited institutional support. Studies have reported alarming rates of burnout, anxiety, and depression among Filipino nurses, reflecting systemic challenges within the healthcare environment (Aziz & Ong, 2024; Labrague & De los Santos, 2020). These stressors not only affect individual well-being but also contribute to workforce instability, including migration or "brain drain," as nurses seek better working conditions abroad (Lorenzo et al., 2007).

Despite existing legal frameworks such as Republic Act No. 9173 and Republic Act No. 7305, challenges persist in their effective implementation. These laws were designed to ensure fair compensation, safe working conditions, and professional development for nurses; however, issues such as delayed benefits, inadequate hazard pay, and poor nurse-to-patient ratios remain prevalent (Alibudbud, 2023; Berdida, 2025). This disconnect between policy and practice highlights the need for strengthened institutional systems and governance mechanisms to support the nursing workforce. Moreover, the Philippines continues to face a significant shortage of nurses, particularly in public healthcare institutions.

*Graduate School, Phinma- St. Jude College, Manila, Philippines.

This shortage intensifies workload demands and exposes nurses to greater occupational risks, including physical fatigue, emotional strain, and psychosocial hazards (Labrague et al., 2018). In urban centers such as Quezon City, government institutions often operate under high patient volume and constrained resources, creating environments where nurses must perform complex roles under pressure. These conditions contribute to increased stress levels and elevate the risk of burnout, which may ultimately compromise both nurse well-being and patient care outcomes.

Nurses working in specialized government institutions encounter additional challenges due to the unique nature of their work environment. These include strict security protocols, limited autonomy, and the need to balance caregiving responsibilities with institutional regulations. While initiatives such as mental health and wellness programs have been introduced, the persistence of occupational stress suggests that existing interventions may be insufficient or inadequately implemented. Addressing these challenges requires a comprehensive understanding of the relationship between occupational stress and workplace risks.

Anchored within the global agenda of United Nations Sustainable Development Goal 3, which aims to ensure healthy lives and promote well-being for all, strengthening the nursing workforce is a critical priority. Reducing occupational stress and improving working conditions are essential strategies in achieving universal health coverage and enhancing healthcare system resilience (World Health Organization, 2020).

Thus, this study aims to examine the levels of occupational stress and occupational risks among nurses working in a government institution in Quezon City. By identifying key stressors and their relationship with workplace risks, the study seeks to generate evidence-based recommendations for strengthening institutional support systems. Ultimately, improving nurses' working conditions will not only enhance their well-being but also contribute to safer, more effective, and sustainable healthcare delivery.

Methodology

Research Design

This study employed a quantitative descriptive-correlational research design to examine the relationship between occupational stress and occupational risks among nurses working in a government institution. Quantitative research is appropriate for systematically measuring variables and testing relationships using statistical techniques (John W. Creswell & Cheryl N. Poth, 2018). The descriptive component enabled the assessment of

stress and occupational risk levels, while the correlational approach determined the degree of association between variables without manipulation (Polit & Beck, 2021). This design was suitable for identifying patterns and relationships that may inform institutional interventions.

Research Locale

The study was conducted in a government institution located in Quezon City, Philippines, consisting of 16 operational stations. The institution provides services that integrate healthcare delivery within a structured and security-oriented environment. Nurses in this setting are exposed to unique occupational conditions, including high workload demands, regulated operational procedures, and limited autonomy, which may influence their levels of stress and perception of occupational risk.

Population and Sampling

The total population comprised 240 registered nurses employed in the institution. The sample size of 148 respondents was determined using the Raosoft sample size calculator at a 95% confidence level and a 5% margin of error. A stratified proportionate sampling technique was utilized to ensure adequate representation from each of the 16 stations. This method enhances representativeness by proportionally selecting respondents from different subgroups within the population (Polit & Beck, 2021).

Research Instrument

Data were collected using a structured, three-part questionnaire:

1. **Demographic Profile** – Included age, sex, educational attainment, and years of service.
2. **Occupational Stress** – Measured using a modified version of the Nursing Stress Scale (NSS) developed by Gray-Toft and Anderson (1981). The instrument consisted of 34 items assessing stress domains such as training, support, nurse-patient interaction, workload, and decision-making. Responses were rated on a 5-point Likert scale ranging from 1 (Never) to 5 (Very Often).
3. **Occupational Risk** – Assessed using selected domains from the Copenhagen Psychosocial Questionnaire (COPSOQ III) developed by National Research Centre for the Working Environment. The domains included work demands, control and influence, and support and social capital, measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Validity and Reliability

The instrument underwent content validation by experts in nursing, institutional management, and psychometrics to ensure clarity, relevance, and contextual appropriateness. A pilot study involving 30 nurses from a similar setting was conducted to establish reliability. The results demonstrated high internal consistency, with a Cronbach's alpha of 0.873 for occupational stress and 0.959 for occupational risk, indicating that the instrument was reliable and suitable for data collection (Tavakol & Dennick, 2011).

Data Gathering Procedure

Prior to data collection, formal approval was obtained from the institution's administration. Participants were informed about the purpose, procedures, and ethical considerations of the study, and informed consent was secured. The questionnaire was distributed through an online survey platform, allowing respondents to complete it at their convenience. Data collection was conducted in a manner that ensured confidentiality and voluntary participation. Assistance from a statistician was sought to ensure accurate data coding, tabulation, and interpretation.

Data Processing and Statistical Treatment

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). The following statistical tools were employed:

- **Frequency and Percentage** – to describe the demographic profile
- **Composite Mean** – to determine the levels of occupational stress and occupational risk
- **Pearson Product-Moment Correlation (r)** – to determine the relationship between occupational stress and occupational risk

All statistical analyses were performed at a 0.05 level of significance, which is a commonly accepted threshold in social science research (Field, 2018).

Ethical Considerations

Ethical principles were strictly observed throughout the study. Participation was voluntary, and respondents were informed of their right to withdraw at any time without penalty. Confidentiality and anonymity were maintained by excluding personally identifiable information. Data were securely stored and used solely for research purposes. The study ensured that no physical, emotional, or psychological harm would be inflicted on participants, adhering to standard ethical guidelines in nursing research (World Health Organization, 2021).

Results

Profile of the Respondents

The study involved 148 nurses working in a government institution in Quezon City. The demographic distribution revealed that the majority of respondents were within the 31–40 age group (41.2%), followed by those aged 41–50 years (33.1%), indicating a predominantly early- to mid-career workforce. In terms of sex, female nurses comprised 79.1%, reflecting the gender composition commonly observed in the nursing profession. Regarding educational attainment, the majority held a Master's degree (64.9%), followed by those with doctoral qualifications (19.6%), suggesting a highly educated workforce. In terms of years of service, most respondents had 6–10 years of experience (47.3%), indicating a workforce with substantial clinical exposure.

This demographic pattern suggests that the respondents possess adequate professional maturity and experience, which may influence their perception of workplace stress and occupational risks. Literature supports that mid-career nurses often demonstrate higher levels of clinical competence but are also more exposed to cumulative work-related stressors (Labrague et al., 2018).

Level of Occupational Stress

The findings revealed that nurses experienced a high level of occupational **stress**, particularly in the domains of decision-making ($M = 4.25$) and workload ($M = 4.08$). These results indicate that nurses frequently encounter situations requiring critical judgment under pressure and are burdened by excessive work demands.

Among the specific stressors, the highest-rated items included friction with external healthcare providers ($M = 4.66$) and substandard equipment ($M = 4.68$). These findings suggest that both interpersonal challenges and inadequate resources significantly contribute to stress levels.

The results are consistent with previous studies indicating that workload, limited resources, and interprofessional conflict are primary contributors to occupational stress among nurses (Dall'Ora et al., 2020; Labrague & De los Santos, 2020). High stress levels in decision-making further reflect the complexity of clinical responsibilities in high-demand healthcare environments.

Level of Occupational Risk

In terms of occupational risk, the findings showed that nurses perceived a high level of risk, particularly in the domain of work demands ($M = 4.10$). This indicates that the nature and intensity of work significantly expose nurses to psychosocial and operational hazards.

Notably, the prioritization of security protocols over patient care emerged as a key concern, reflecting the unique challenges of working in a government institution with specialized operational requirements. Other domains, such as control and influence and support and social capital, also contributed to the overall perception of occupational risk, suggesting limitations in autonomy and institutional support.

These findings align with the Job Demands–Resources (JD-R) model, which posits that high job demands combined with insufficient resources lead to increased occupational risk and burnout (Bakker & Demerouti, 2017).

Relationship Between Occupational Stress and Occupational Risk

The analysis revealed a significant moderate positive relationship between occupational stress and occupational risk ($r_s = 0.503$, $p = 0.012$). This indicates that as the level of stress increases, the perception of occupational risk also increases.

This finding supports existing literature emphasizing that occupational stress is closely linked to workplace risks, including physical, psychological, and organizational hazards (Aiken et al., 2018). The result implies that stress is not only an outcome of workplace conditions but also a contributing factor to increased vulnerability to risks.

Relationship Between Profile and Occupational Risk

Among the demographic variables, years of service was found to have a significant relationship with occupational risk ($p = 0.022$). This suggests that experience influences how nurses perceive and respond to workplace risks. Nurses with longer years of service may have heightened awareness of risks due to prolonged exposure to demanding work environments.

In contrast, variables such as age, sex, and educational attainment showed no significant relationship with occupational risk. This indicates that occupational risk perception is more closely associated with experiential factors rather than demographic characteristics.

These findings are supported by studies suggesting that work experience plays a critical role in shaping stress perception and coping mechanisms among healthcare professionals (Labrague et al., 2018).

Conclusion

This study examined the levels of occupational stress and occupational risks among nurses working in a government institution in Quezon City, as well as the relationships between these variables and

selected demographic factors. The findings clearly indicate that nurses experience high levels of occupational stress, particularly in areas related to decision-making and workload, reflecting the demanding and complex nature of their roles. In addition, nurses reported high levels of occupational risk, especially in terms of work demands, highlighting the challenging conditions under which care is delivered within a structured and resource-constrained environment.

A key finding of the study is the significant positive relationship between occupational stress and occupational risk, suggesting that as stress increases, nurses become more vulnerable to workplace hazards. This relationship underscores the interconnected nature of psychological strain and occupational safety, emphasizing that stress is not only an individual concern but also an organizational issue that directly impacts workforce stability and quality of care. Furthermore, among the demographic variables, years of service emerged as the only significant factor associated with occupational risk, indicating that experience influences how nurses perceive and respond to workplace challenges. Other variables such as age, sex, and educational attainment were not found to have significant effects.

The results highlight that the working conditions within government healthcare institutions expose nurses to persistent stressors and risks that may compromise their well-being and professional performance. Despite the presence of institutional programs and legal frameworks intended to support healthcare workers, gaps remain in their implementation and effectiveness. These findings reinforce the need for strengthened support systems, improved workload management, enhanced interprofessional coordination, and more responsive organizational policies.

Addressing occupational stress and risk among nurses requires a comprehensive, system-level approach that integrates administrative support, policy implementation, and workforce development strategies. By prioritizing the well-being of nurses, healthcare institutions can promote a safer work environment, improve job satisfaction, and ultimately enhance the quality of patient care.

Conflicts of Interest

The author declares that there is no conflict of interest in this manuscript. Results have been deduced objectively; nothing influenced this result by any individual, monetary, or institutional interests. In effect, utmost endeavors were in order to conduct a bias-free operation of gathering and analyzing the data into interpretation and producing

a study based on merit, away from research inconsistencies.

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