
Factors Affecting Patient Falls in The Cardiac Ward of Two Selected Hospitals in Batangas City: Basis For Prevention Strategies

Shariemer A. Jilhano, RN

<https://orcid.org/0009-0008-9004-5793>

St. Bernadette of Lourdes College

sjilhano@sbhc.edu.ph

ABSTRACT

This study assessed communication efficiency in nurse-to-nurse handovers and its relationship with demographic profile and workload-related factors among nurses in a surgical ward in a selected hospital. A quantitative descriptive–correlational design was used, involving 27 registered nurses selected through total sampling. Data were gathered using a validated researcher-made questionnaire and analyzed using descriptive and inferential statistics. Results showed that communication efficiency was at a good level ($M = 4.22$), indicating effective exchange of patient information during handovers, while workload-related factors such as nurse–patient ratio ($M = 3.96$) and shift transitions ($M = 4.01$) influenced communication and patient safety. No significant relationship was found between communication efficiency and demographic variables ($p > 0.05$), suggesting that organizational and workload factors had greater influence than individual characteristics. The study concluded that structured communication, workload management, and staffing improvement are essential to enhance patient safety.

Keywords: cardiac ward, compliance, monitoring, nurse-related factors, patient falls, prevention strategies, workload.

INTRODUCTION

Patient safety depended largely on effective communication during nurse-to-nurse handovers, which ensured continuity of care and reduced clinical errors. However, communication failures still occurred in high-acuity areas such as surgical wards due to workload and staffing challenges. Although structured communication tools were introduced, gaps remained in practice. This study therefore examined communication efficiency and its relationship with demographic and workload-related factors to improve patient safety.

Statement of the Problem

The study determined communication efficiency and patient safety among nurses in a surgical ward by describing the demographic profile, assessing communication efficiency, evaluating workload factors, testing relationships, and proposing an action plan for improvement.

Scope and Delimitations

The study focused on 52 nurses working in the cardiac units of two selected private hospitals in Batangas City. It examined demographic characteristics and nurse-related factors, such as workload, monitoring, and compliance with fall-prevention protocols. The study is limited to self-reported data,

which may be subject to bias. It does not include public hospitals or actual patient fall records, and its findings are limited to the selected institutions.

REVIEW RELATED LITERATURE

The literature showed that communication efficiency was essential to patient safety and quality care. Studies (Hou et al., 2020; Howick et al., 2024; Jang et al., 2022) found that structured handovers improved continuity of care and reduced errors. Demographic factors such as age, sex, and experience influenced communication ability, while workload factors such as nurse–patient ratio and fatigue negatively affected information transfer (Trammell & Aguilar, 2021). Overall, both individual and organizational factors were important in improving communication and patient safety.

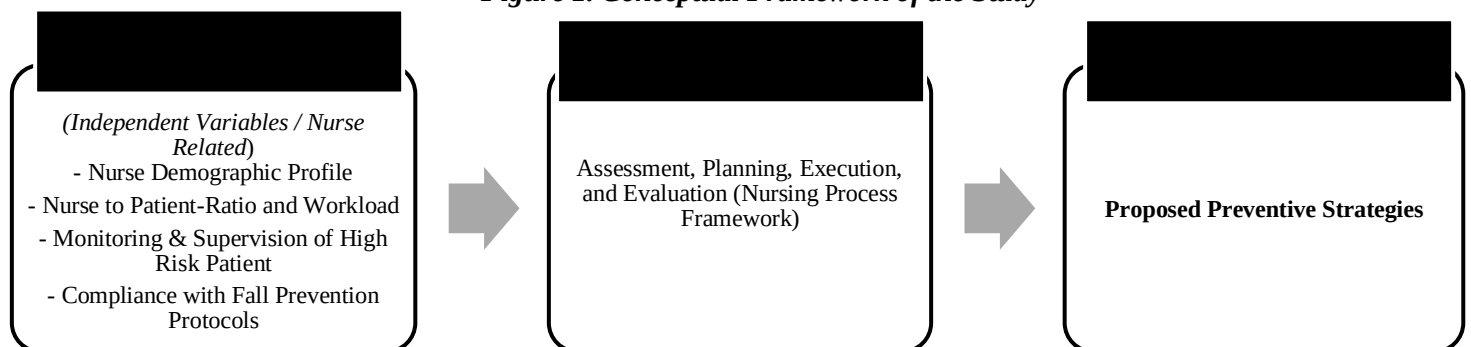
THEORETICAL FRAMEWORK

The study was anchored in Systems Theory (von Bertalanffy, 1968), Nursing Process Theory (Yura & Walsh, 1983), and Lewin’s Change Theory (1951). These theories explained that patient safety resulted from interactions among nurses, systems, and organizational processes, and that structured nursing actions and change implementation supported improvements in practice.

CONCEPTUAL FRAMEWORK

The study examined the demographic profile and workload-related factors as independent variables affecting communication efficiency, which in turn influenced patient safety. It emphasized that staffing, workload distribution, supervision, and protocol compliance played key roles in ensuring effective communication and reducing the risk of patient falls.

Figure 1. Conceptual Framework of the Study



METHODOLOGY

The study used a systematic quantitative approach to examine nurse-related factors affecting patient falls in cardiac units of two private hospitals in Batangas City. It included research design, participants, instruments, data collection, analysis, and ethical considerations. The process ensured accurate, reliable, and ethical data gathering and analysis.

RESEARCH DESIGN

The study employed a descriptive–comparative research design to examine nurse-related factors associated with patient falls. It compared nurses using demographic variables

and analyzed the relationships of these variables with workload, monitoring practices, and protocol compliance. This design described existing conditions without manipulating variables.

RESEARCH STEPS

The research design was developed after reviewing the related literature and identifying key variables, including demographics, workload, monitoring, and compliance. A validated questionnaire was prepared, pilot-tested, and approved before data collection. Two private hospitals were selected, and data were collected via Google Forms following ethical clearance.

DATA COLLECTION AND SAMPLE SELECTION

Data collection began after securing ethical approval and hospital permission. Fifty-two cardiac nurses were selected through purposive sampling and oriented about the study, ensuring informed consent and confidentiality. The questionnaire was distributed electronically through official hospital channels.

DATA ANALYSIS METHODS

Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the data. Inferential tests, specifically the Kruskal–Wallis and Mann–Whitney U tests, were applied to assess significant differences and relationships. All analyses were conducted at a 0.05 level of significance.

RESEARCH HYPOTHESIS AND VALIDATION

The study tested the null hypothesis that there was no significant relationship between the demographic profile and nurse-related factors affecting patient falls. Kruskal–Wallis and Mann–Whitney U tests were used to examine relationships at a 0.05 significance level. Results determined whether to accept or reject the null hypothesis.

STUDY LIMITATION AND ETHICAL CONSIDERATIONS

The study was limited to two private hospitals in Batangas City and focused only on cardiac unit nurses, which restricted generalizability. It relied on self-reported data, which may have introduced response bias and did not include actual fall records. Ethical standards such as informed consent, confidentiality, voluntary participation, and data privacy compliance were strictly observed.

RESULTS AND DISCUSSION

SOP 1. What is the demographic profile of the nurse respondents in terms of age, sex, years of experience, and position/role in the unit?

Most nurse respondents were aged 30–39 years, predominantly female, and comprised both early-career and moderately experienced staff nurses, with a smaller proportion of charge nurses. This indicated a largely mid-career workforce in the cardiac units with active clinical roles and limited supervisory staff.

SOP 2. What are the nurse-related factors associated with their perceptions of patient fall incidents in terms of nurse-to-patient ratio and workload, monitoring and supervision, and

compliance with hospital fall prevention protocols?

Nurses strongly agreed that workload, nurse-to-patient ratio, monitoring, and compliance with protocols significantly affected patient fall risks. High workload, fatigue, and staffing limitations reduced efficiency, while consistent monitoring and adherence to protocols were important for patient safety.

SOP 3. Is there a significant relationship between the demographic profile of nurse respondents and nurse-related factors affecting their perceptions of patient falls?

There was no significant relationship between the demographic profile and nurse-related factors affecting patient falls, as all p-values were >0.05 . This indicated that age, sex, experience, and position did not significantly influence nurses' perceptions or practices.

SUMMARY

The study found that most respondents were mid-career female staff nurses working in cardiac units. Overall, workload, monitoring, and protocol compliance were identified as key factors in preventing patient falls, while demographic variables showed no significant influence.

CONCLUSIONS

The findings showed that nurses had similar perceptions of patient fall prevention regardless of demographic differences. This suggested that organizational systems, training, and standardized protocols had a stronger impact than individual nurse characteristics.

RECOMMENDATIONS

Hospitals are encouraged to improve nurse-to-patient ratios, the distribution of workloads, and the continuous monitoring of high-risk patients to reduce fall incidents. Nurses should consistently apply fall prevention protocols, conduct regular assessments, and involve patients and families in safety measures. Future studies are recommended to expand to other hospital settings and explore additional factors such as technology use and patient-related variables to further enhance fall prevention strategies.

ACKNOWLEDGMENT

In the Name of Allah, the Most Gracious and the Most Merciful, all praise and gratitude are due to Allah (SWT) for granting strength, patience, wisdom, and perseverance throughout the completion of this study. The researcher extends sincere appreciation to her beloved husband, Ronel E. Tejero, for his unwavering love, understanding, and support, and to her sons, Ahyan Zain J. Tejero and Areez Yousef J. Tejero, who serve as her constant inspiration and motivation. Deep gratitude is also given to her adviser, Dean of the Graduate School, and Course Facilitator, Dr. Joel John A. Dela Merced, for his invaluable guidance, patience, and mentorship, as well as to the panel members, Dr. Agaton Manuel Gerard T. Alzate, Dr. Edna A. Dominguez, and Dr. Marietta R. Fabrose, for their insightful comments and recommendations that significantly improved the quality of this study. Finally, heartfelt thanks are extended to all who supported, encouraged, and prayed for the completion of this academic endeavor.

AI DECLARATION STATEMENT

AI-supported tools helped with grammar and structure in creating this article. No AI tools were used to collect, analyze, or interpret data; all authors are credited for their academic contributions.

REFERENCES

- Arıca, S., Yildiz, F., & Demir, A. (2025). *Leadership roles of nurses in enforcing safety protocols and mentoring junior staff: Implications for patient outcomes*. *Nursing Management Review*, 30(1), 21–30. <https://doi.org/10.1016/j.nmrev.2024.09.005>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Ghosh, S., Banerjee, R., & Das, P. (2022). *Impact of nurse demographics on patient fall prevention strategies*. *International Journal of Nursing Studies*, 129, 104–112. <https://doi.org/10.1016/j.ijnurstu.2022.10411>
- Juvé-Udina, M., Palacios-Ceña, D., & Monforte-Royo, C. (2025). *Nurse staffing coverage and patient outcomes: Reducing fall incidents in hospital units*. *Journal of Advanced Nursing*, 81(5), 1123–1135. <https://doi.org/10.1111/jan.15264>
- Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. Harper & Row.
- Moriwaki, Y., Tanaka, H., & Fujimoto, S. (2025). *Correlation between nurse staffing levels and patient fall rates in acute care hospitals*. *International Journal of Health Care Quality Assurance*, 38(2), 97–107. <https://doi.org/10.1108/IJHCQA-11-2024-0145>
- Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.
- Takase, M., Ito, Y., & Kato, T. (2022). *Monitoring and supervision practices in fall prevention: Analysis of over 4,000 incident reports*. *Nursing & Health Sciences*, 24(4), 680–688. <https://doi.org/10.1111/nhs.12987>
- Turner, R., Smith, L., & Johnson, P. (2022). *Adherence to fall prevention protocols in hospitals: Variability and strategies for compliance*. *Journal of Clinical Nursing*, 31(7–8), 1015–1027. <https://doi.org/10.1111/jocn.16087>
- Von Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. George Braziller.
- Weber, K., Brown, D., & Hall, S. (2024). *Structured nurse-patient interactions and patient engagement in fall prevention*. *Patient Safety in Nursing*, 15(2), 90–98. <https://doi.org/10.1016/j.psn.2024.01.004>
- World Health Organization. (2021). *Falls*. World Health Organization.
- Yura, H., & Walsh, M. B. (1983). *The nursing process: Assessing, planning, implementing, evaluating* (4th ed.). Appleton-Century-Crofts.