Physical Education, Health and Social Sciences

https://journal-of-social-education.org

E-ISSN: 2958-5996

P-ISSN: 2958-5988

Association Between Missed Nursing Care and Patient Safety Outcomes Among Patients in a Tertiary Care Hospital

Samuel[1], Syeda Tasneem Kausar[2], Rubina Jabeen[3], Kousar Perveen[4], Sajida Batool[5]

[1] BSN, Superior University, Department of Nursing, Lahore. Email: Samuelalbert1651@gmail.com
[2] Nursing Director Superior University Department of Nursing, Lahore. Email: Sindy070766@Gmail.com
[3] Principal Superior University Department of Nursing, Lahore. Email: rubinajabeen302@yahoo.com
[4] Associate Professor Superior University Department of Nursing, Lahore. Email: kous84@gmail.com
[5] Nursing Lecturer Superior University Department of Nursing, Lahore. Email: sajidabatool0@gmail.com
Corresponding Author: Samuel

Abstract

Background: Missed nursing care has emerged as a significant challenge to healthcare quality and patient safety. Omission or delay of essential nursing interventions may contribute to adverse patient outcomes, including medication errors, falls, pressure injuries, and healthcare-associated infections.

Aim: To determine the relationship between missed nursing care and patient safety outcomes among registered nurses working in a tertiary care hospital in Lahore.

Methods: A quantitative cross-sectional correlational study was conducted at Jinnah Hospital, Lahore. A total of 162 registered nurses were selected through simple random sampling from a population of 280 nurses using the Raosoft sample size calculator. Data were collected using a demographic questionnaire, the MISSCARE Survey, and a Patient Safety Outcomes Questionnaire. Descriptive statistics and Pearson's correlation were performed using SPSS version 27.0, with statistical significance set at $p < 0.05$.

Results: The findings indicated a moderate level of missed nursing care (mean = 2.73 ± 0.48) and good patient safety outcomes (mean = 4.06 ± 0.47). Patient education and emotional support were the most frequently missed nursing activities. Pearson's correlation analysis revealed a statistically significant moderate negative relationship between missed nursing care and patient safety outcomes ($r = -0.582$, $p < 0.001$).

Conclusion: Missed nursing care was significantly associated with poorer patient safety outcomes. Improving nurse staffing, teamwork, resource availability, and continuous professional education may reduce missed nursing care and enhance patient safety in tertiary care hospitals.

Keywords: Missed nursing care, patient safety outcomes, registered nurses, patient safety, tertiary care hospital, nursing care quality, Lahore.

Introduction

Failure to care for patients while they are in care has become one of the world's largest and most important measures of the quality and safety of health care services. With the complexity of the

healthcare environment due to the growing acuity of patients, increased aging population, workforce shortages, and the advancement of technology, nurses will be required to provide holistic, timely and evidence-based care that will be done under challenging circumstances. But if necessary nursing actions are not completed, partially completed or not done at all, the continuity and quality of nursing care is affected. (Assaye et al., 2022). Therefore, missed nursing care is recognized worldwide as a patient safety concern and has implications on the clinical outcomes, healthcare expenses, patients' experiences and organizational performance. International bodies remain adamant that the quality and effectiveness of nursing care delivery are key to attain universal health coverage, preventable harm and quality health care (Sarpong et al., 2025).

Patient safety is a major challenge in modern health care. The World Health Organization reports that 1 in 10 patients experiences avoidable injury while receiving health care, and annual adverse event estimates are in the millions. These events increase length of stay, cost, disability, and even death of patients. Traditionally, patient safety has been attributed to medication errors, hospital acquired infections, and surgical complications. Today we know evidence-based practice and research have shown poor basic nursing care framework can adversely affect patient outcomes. Continuous bedside care is a nursing responsibility, and omissions of nursing actions often show the first signs of deteriorating patient safety and health care (Iddrisu et al., 2025; Rahmani et al., 2022).

Previously, missed nursing care referred to any element of care that was unfinished or delayed. Missed nursing care is defined as an error of omission, in which a required nursing care intervention was not provided when the situation required it (versus an error of commission, in which a wrong intervention is provided). These activities include, but are not limited to, patient assessment, medication administration, patient education, emotional care, prevention of pressure injuries, mobilization, hygiene care, documentation, monitoring of vital signs, discharge planning, and interprofessional communication. These activities are the building blocks of the nursing practice. The absence of these activities results in a major concern for the patient’s safety and health. The contemporary nursing literature identifies missed nursing care as one of the key indicators of the quality of nursing care and the overall performance of a healthcare organization (Breno et al., 2025).

Missed nursing care is a global concern and present in almost all healthcare settings. A comprehensive review and studies done across multiple countries show that 55% to 98% of hospital based nurses, on average, miss 1 or more key nursing activities over the course of a shift (Imam et al., 2023; Nantsupawat et al., 2022). Most commonly missed practices include patient ambulation, provision of health education, and emotional support; as well as adequate surveillance, and documentation (Imam et al., 2023; Nantsupawat et al., 2022). As one would expect, this occurs most frequently in surgical units, high dependency units, emergency units and ICUs, where patient levels of acuity and staffing needs are greatest. Research based out of North America, Europe, Australia, and Asia has shown that increased nursing workload and inadequate nurse-patient ratios and staffing leads to poor teamwork and resource availability accompanied by a lack of committed leadership. As a result, the risk of missing nursing care activities significantly increases (Breno et al., 2025; Alanazi et al., 2023; Imam et al., 2023; Nantsupawat et al., 2022).

There are a variety of theoretical and concept-based models that help illustrate the connection between the absence of nursing care and the safety of patients. The Missed Nursing Care model stated by Kalisch describes the absence of care as a result of a shortage in any of the following: labour and/or material resources, communication, teamwork and/or organizational factors that hold direct influence on the ability of the nurse to deliver defined care to the patient. The Structure-Process-Outcome model of Donabedian contributes to the analysis of the structures of the healthcare service including staffing and resources, that influence nursing process and

ultimately the patient's outcome. In the same context, Reason's Swiss Cheese Model describes a number of organizational failures, when combined with an absence of care on the front line, create gaps in care to which adverse events are allowed to occur. Taken together, these models illustrate that gaps in nursing care do not occur due to the absence of care on the part of the nurse, but rather due to the failure of the overall healthcare system to ensure patient safety. (Al Muharraq et al., 2022; Gong et al., 2025).

Globally, missed nursing care is regarded with great concern; however, there is little consensus about how to define missed nursing care, how and when to assess it, and how to address it. There is also little consensus about whether missed nursing care indicates a staffing shortage, represents a distinct quality measure, or is a measure between an organization's characteristics and patient outcomes. Where there is also great concern, is the accuracy of the measurements, since the majority of studies are based on the nurses' self-report, which may be affected by recall bias and social desirability bias. Although some researchers have argued for staffing as the primary intervention, others believe that changes in teamwork, leadership, communication, safety culture, and workflow redesign are as equally important as staffing changes. Continued debates suggest that missed nursing care is a complex topic, and should be investigated in a number of different countries in an effort to understand the numerous nuances in different healthcare systems and cultures (Gong et al., 2025; Kohanová et al., 2024).

In many of the Low and Middle Income Countries (LMICs) healthcare systems, the challenges faced are usually compounded, and along with heavy workloads and too few staff, there are problems with inadequate supplies, poor facilities, and a lack of funding. Nurses in these systems struggle with highly limiting resource constraints. As a result, nurses in these countries are forced to prioritize which nursing actions to omit when workload demands exceed their capacity. The omission rates are higher for lower priority visible actions when compared with clinical actions which makes the nursing care deficit in low and middle income countries likely higher than in high income countries (Assaye et al., 2022; Edfeldt et al., 2024).

In Pakistan, there are numerous structural and organizational problems in the nursing profession that may also contribute to missed nursing care. Most public sector tertiary care hospitals have problems with overcrowding, increased patient complexity, insufficient numbers of qualified nursing staff, heavy workloads, long hours, limited continuing professional development, and a lack of adequate equipment and clinical resources. Though there have been national healthcare reforms that focus on patient safety and quality, there is a notable absence of empirical studies on the connection between missed nursing care and safety and quality issues. The existing studies in Pakistan have been on medication errors, prevention of infections, patient satisfaction, occupational stress, and quality of nursing care. This research focuses on missed nursing care and the safety and quality of nursing services (Nymark et al., 2022).

With this in mind, examining the connection between missed nursing care and patient safety outcomes at a tertiary care hospital in Lahore is both relevant and crucial. Local evidence can help quantify how much nursing care is missed, locate areas for improvement in the organization, and describe the impact of missed nursing care on patient safety in the local healthcare system. The data should help nursing managers, hospital administrators, educators, and government officials formulate contextually relevant strategies for managing staff and patient safety, improving the culture of patient safety, and implementing focused quality improvement projects. It will also add to the scant nursing research in Pakistan and provide evidence to the growing international research on missed nursing care and patient safety, thus helping achieve the goal of providing safe, high-quality, and patient-oriented healthcare services (Breno et al., 2025; Azzellino et al., 2025).

Methods

A quantitative, descriptive cross-sectional correlational research design was used to examine the relationship between missed nursing care and patient safety outcomes among registered

nurses working at Jinnah Hospital, Lahore. The study population consisted of 280 registered nurses providing direct patient care in medical, surgical, emergency, intensive care, and specialty units. A sample of 162 registered nurses was selected using a simple random sampling technique. The sample size was calculated using the Raosoft Sample Size Calculator with a 95% confidence level, 5% margin of error, and 50% response distribution. Eligible participants were registered nurses licensed by the Pakistan Nursing and Midwifery Council, having at least six months of experience at the hospital and providing direct patient care. Nursing students, interns, trainee nurses, administrators, supervisors, nurses on leave, and nurses who declined participation were excluded. Data were collected using a structured self-administered questionnaire consisting of demographic characteristics, the MISSCARE Survey, and a Patient Safety Outcomes Questionnaire. The reliability of the instruments was assessed using Cronbach's alpha, which yielded a value of 0.82.

Data Collection Procedure

Prior to data collection, ethical approval was obtained from the relevant Institutional Review Board, followed by administrative permission from the Medical Superintendent and Nursing Administration of Jinnah Hospital, Lahore. Eligible nurses were approached during their duty hours and were informed about the study objectives, significance, confidentiality, and voluntary nature of participation. Written informed consent was obtained from each participant before questionnaire administration. A pilot study involving 16 nurses was conducted to assess the clarity, feasibility, comprehensibility, and completion time of the questionnaire. Pilot participants were excluded from the final sample. The final questionnaire was self-administered and required approximately 15–20 minutes to complete. Completed questionnaires were collected on the same day.

Data Analysis Procedure

Data were coded, entered, cleaned, and analyzed using Statistical Package for the Social Sciences (SPSS) version 27.0. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize demographic characteristics and study variables. The normality of continuous variables was assessed before inferential analysis. Pearson's correlation coefficient was used to determine the relationship between missed nursing care and patient safety outcomes. Statistical significance was determined at a p-value of less than 0.05, with a 95% confidence interval.

Results

Demographic Analysis

Table 1 presents the demographic characteristics of the 162 registered nurses included in the study. The majority of participants were aged 21–30 years (44.4%), followed by those aged 31–40 years (34.6%), indicating that the nursing workforce was predominantly young. Female nurses constituted nearly two-thirds (64.2%) of the sample, while 35.8% were male. Most participants were married (60.5%) and held either a Post RN BSN (33.3%) or Generic BSN (32.1%) qualification. Regarding professional experience, 42.0% had less than five years of experience, and the largest proportion worked in medical wards (25.9%). Additionally, 44.5% of the participants were assigned to rotating or night shifts, reflecting the demanding nature of nursing services in the tertiary care hospital.

Table 1: Demographic Characteristics of the Participants (n = 162)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	21–30	72	44.4
	31–40	56	34.6
	41–50	24	14.8
	>50	10	6.2

Gender	Male	58	35.8
	Female	104	64.2
Marital Status	Single	64	39.5
	Married	98	60.5
Educational Qualification	Diploma Nursing	36	22.2
	Generic BSN	52	32.1
	Post RN BSN	54	33.3
	MSN or Above	20	12.4
Years of Experience	<5 years	68	42.0
	5–10 years	56	34.6
	>10 years	38	23.4
Working Unit	Medical	42	25.9
	Surgical	40	24.7
	ICU	30	18.5
	Emergency	28	17.3
	Other	22	13.6
Work Shift	Morning	48	29.6
	Evening	42	25.9
	Night/Rotating	72	44.5

Table 2 summarizes the mean scores for missed nursing care activities among registered nurses. Patient education (3.48 ± 0.86) and emotional support (3.35 ± 0.79) had the highest mean scores, indicating that these activities were the most frequently missed. Patient ambulation (3.21 ± 0.84) and discharge planning (3.12 ± 0.82) were also commonly omitted. In contrast, medication administration (1.89 ± 0.65) and vital signs monitoring (2.18 ± 0.73) demonstrated the lowest mean scores, suggesting that these essential clinical tasks were consistently completed. Overall, the findings indicate that while nurses prioritized critical clinical interventions, supportive and educational aspects of nursing care were more likely to be delayed or omitted.

Table 2: Missed Nursing Care Scores Among Registered Nurses (MISSCARE Survey)

Item	Mean ± SD	Interpretation
Patient assessment	2.61 ± 0.81	Moderate
Vital signs monitoring	2.18 ± 0.73	Low
Medication administration	1.89 ± 0.65	Low
Patient education	3.48 ± 0.86	High
Emotional support	3.35 ± 0.79	High
Patient ambulation	3.21 ± 0.84	Moderate
Oral hygiene	2.94 ± 0.77	Moderate
Skin care/Pressure ulcer prevention	2.67 ± 0.81	Moderate
Documentation	2.42 ± 0.71	Low
Discharge planning	3.12 ± 0.82	Moderate
Communication with healthcare team	2.36 ± 0.70	Low
Response to call bells	2.53 ± 0.75	Moderate

Table 3 presents the patient safety outcome scores reported by the participants. Infection prevention achieved the highest mean score (4.22 ± 0.54), followed by medication safety (4.18 ± 0.56) and documentation accuracy (4.08 ± 0.59), indicating favorable patient safety practices

in these areas. Pressure injury prevention showed the lowest mean score (3.88 ± 0.69), although it remained within the good performance category. The overall patient safety score was 4.06 ± 0.47, suggesting that patient safety outcomes were generally perceived as good among the participating nurses despite the occurrence of some missed nursing care activities.

Table 3: Patient Safety Outcomes Scores

Patient Safety Outcome	Mean ± SD	Interpretation
Medication safety	4.18 ± 0.56	Good
Patient falls prevention	4.05 ± 0.63	Good
Pressure injury prevention	3.88 ± 0.69	Good
Infection prevention	4.22 ± 0.54	Good
Timely recognition of patient deterioration	3.96 ± 0.61	Good
Documentation accuracy	4.08 ± 0.59	Good
Overall patient safety	4.06 ± 0.47	Good

Table 4 shows the overall scores for the two study variables. The mean score for missed nursing care was 2.73 ± 0.48, indicating a moderate level of omitted or delayed nursing care among the participants. The patient safety outcomes scale demonstrated a mean score of 4.06 ± 0.47, reflecting an overall good level of patient safety within the study setting. These findings suggest that although some nursing care activities were occasionally missed, the general standard of patient safety remained satisfactory in the hospital

Table 4: Overall Scale Scores

Variable	Possible Score Range	Mean ± SD	Minimum	Maximum	Interpretation
Missed Nursing Care	1–5	2.73 ± 0.48	1.42	4.18	Moderate level
Patient Safety Outcomes	1–5	4.06 ± 0.47	2.85	5.00	Good level

Table 5 presents the Pearson correlation analysis examining the relationship between missed nursing care and patient safety outcomes. The analysis revealed a statistically significant moderate negative correlation between the two variables ($r = -0.582$, $p < 0.001$). This indicates that higher levels of missed nursing care were associated with poorer patient safety outcomes. The findings support the study hypothesis by demonstrating that omissions or delays in essential nursing care may adversely affect the quality and safety of patient care, highlighting the importance of minimizing missed nursing care to improve patient safety in tertiary healthcare settings.

Table 5: Pearson Correlation Between Missed Nursing Care and Patient Safety Outcomes

Variables	Mean ± SD	Pearson's r	p-value	Interpretation
Missed Nursing Care	2.73 ± 0.48	-0.582	<0.001	Moderate negative, statistically significant
Patient Safety Outcomes	4.06 ± 0.47			

Discussion

This study evaluated the connection between missed nursing care and patient safety outcomes of registered nurses at a tertiary care center in Lahore. Research indicated reasonably high levels of missing nursing care and perceived patient safety outcomes. A moderate negative correlation was found between missed nursing care and patient safety outcomes, and the correlation was statistically significant. This indicates that, overall, higher levels of missed nursing care resulted in lower levels of patient safety. The results show that nursing care interventions impact the overall quality of care and patient safety. Previous research also reflects these findings, indicating a significant relationship between missed nursing care and patient safety outcomes and the quality of healthcare services (Li et al., 2024).

The young, female, married, and newly married personnel with a Bachelor of Science in Nursing were the primary participants. The majority worked part-time and had less than five years of work experience. The results showed that the newly-formed segment of the profession may be exposed to a greater degree of clinical demands. Similar observations have been recorded in other employment areas, indicating that younger personnel are the dominant segment of the profession due to aggressive recruitment and workforce development strategies (Alanazi et al., 2023). Although some studies report similar findings, they also show that the nurses included in the studies had longer experience periods, which may explain the differences observed concerning levels of unadministered care.

Results showed that patient education, emotional support, assistance in ambulation, and planning for patient discharge were some of the most commonly unadministered nursing tasks. Results showed that, as the workload increased, clinically-based interventions were prioritized, while supportive and educative care was reported to be absent. Other studies have shown similar results and identified the absence of communication, patient education, and provision of psychosocial support due to time and staffing constraints (Karadaş et al., 2024). Some studies also indicated that physical care was being increasingly unaddressed, and that the type of nursing care left unaddressed is indicative of the combination of staffing and patient acuity within the organization.

The present study found the lowest missed care scores for medication administration and vital sign monitoring, indicating that these activities were the most likely to be performed, regardless of staffing shortages. Nurses may have regarded the administration of medication and the monitoring of the patient's vital signs as important activities with an impact on the patient's survival. Evidence of the same practice has been seen in hospital-based studies, where basic patient safety activities have been prioritized over other nursing activities of a less urgent nature (Zhong et al., 2023). Some studies have shown that inadequate nursing staff resulted in more omission of medication, indicating the impact of the organization on nursing practices.

The results of the study indicated that, whereas the absence of nursing care was moderate, most patient safety outcomes were satisfactory. The highest scoring patient safety indicators were safety of medication and safety of documentation. These results could be explained by the adherence to the standards of the hospital and the infection control process and the framework of quality assurance that were in place at the hospital. Evidence also showed that good systems within an organization and the integration of safety practices at work can maintain an acceptable level of patient safety, even if a number of work pressure issues have not been resolved (Ahansaz et al., 2024). On the other hand, limited available resources and the absence of safety focus have been identified as the most important factors impacting the level of patient safety in a health care system (Gong et al., 2025).

The correlation analysis showed a moderate negative and statistically important correlation between the reduction of nursing care and the negative impact on patient safety. The hypothesis is therefore confirmed, as a higher level of reduction of nursing care indicated a lower score for patient safety in the nurses' reports. This outcome is in line with the literature, which suggests

that there is an increased risk for negative patient safety outcomes if nursing care is missed, and the quality of care is impacted (Alanazi et al., 2023; Edfeldt et al., 2024). Other authors noted more extreme correlations for the same outcomes in critical care and emergency settings, which is to be expected, as unstable and critically ill patients are particularly vulnerable to the consequences of the reduction or omission of nursing care (Duhalde et al., 2023).

There are a number of organizational factors that can explain the correlation in the current study. On nursing units, this correlation is likely due to high demand, inadequate staffing, increasing patient dependency, scarce and limited resources, high levels of interruption, and potentially a combination of these factors. Staffing complications, limited resources, and a failure to organize and construct an effective team have largely explained the failure of nursing care (Gong et al., 2025; Kohanová et al., 2024). Other authors suggest that the quality of the organization and the practice environment work in tandem to control the failure of nursing care (Edfeldt et al., 2024). Organizational commitment and positive workplace attitudes may affect incidence of missed nursing care. Nurses with high levels of professionalism and patient care commitment and a positive attitude toward patient safety may be better able to accomplish required nursing activities within the constraints of their work environment. Some of this research has outlined the relationships between professional commitment, the factors linked to patient safety, and missed nursing care (Ahmadzadeh-Zeidi et al., 2024). Likewise, missed nursing care has been linked to moral sensitivity, thus, professionalism and ethics may also impact nurse's perception regarding the importance and completion of various patient care activities (Ahansaz et al., 2024). The disparities in basic training of personnel, organization's specific regulations, and continued professional training/education may be reflected in the disparate relationships in various healthcare systems.

The results of this study are essential for nursing management and healthcare policy. Improved nurse-to-patient ratios and improved safety and quality of healthcare services as well as professionally related continuing education and improved planning of the workforce are some of the expected outcomes of this study. Healthcare administration needs to consider missed nursing care as a quality of service indicator to be monitored routinely. Other studies, both nationally and internationally, have made similar recommendations. One of the most significantVOLUME quality indicators of nursing and healthcare is missed nursing care (Duhalde et al., 2023; Andersson et al., 2022).

This study fills a gap in the existing literature on missed nursing care and patient safety challenges in Pakistan as most studies have been conducted in developed countries. The study establishes a basis for the development of organizational frameworks to eliminate omissions in nursing care while advancing patient safety strategies in tertiary care hospitals in Pakistan. Given the design of this study, which is cross-sectional, causal conclusions cannot be drawn. This study also relied on self-reported questionnaires, which may have introduced reporting bias. Future studies with multicenter and longitudinal designs, larger and more representative samples, and more objective patient safety indicators, will strengthen the evidence base. Such studies are poised to provide greater insights into missed nursing care and drive the evidence needed to support initiatives aimed at the improvement of safety in nursing practice and patient safety in tertiary care hospitals in Pakistan (Andersson et al., 2022).

Conclusion

The present study found that missed nursing care is still a problem in providing safe and quality healthcare services. The results showed that registered nurses had moderate missed nursing care and overall nursing outcomes were good with regards to patient safety. A negative association was found between omitted or delayed nursing care and patient safety outcomes, and was statistically significant, meaning that as more omitted or delayed nursing care was provided, the patient safety outcomes were lower. Nursing care related to patient education and emotional support, ambulation of the patient and discharge planning were more likely to be missed than

essential clinical activities such as giving medication and monitoring vital signs. It is essential that healthcare institutions increase the capacity of the nursing workforce, increase the availability of resources, encourage good teamwork and adopt organizational policies to reduce cases of nursing care that is not provided and to increase patient safety in tertiary care institutions.

Recommendations

- Hospital administrators should ensure adequate nurse-to-patient ratios to reduce workload and minimize missed nursing care.
- Regular in-service education and continuing professional development programs should be organized to improve nurses' knowledge and awareness regarding patient safety and missed nursing care.
- Nursing managers should establish routine monitoring and reporting systems to identify frequently missed nursing care activities and implement timely corrective measures.
- Healthcare institutions should strengthen teamwork, interdisciplinary communication, and supportive leadership to improve the quality and continuity of nursing care.
- Hospital management should ensure the continuous availability of essential equipment and clinical resources required for effective patient care.
- Patient safety indicators and missed nursing care assessments should be incorporated into routine hospital quality assurance and accreditation programs.
- Future multicenter studies involving larger sample sizes and different healthcare settings should be conducted to improve the generalizability of the findings.
- Longitudinal and interventional studies should be undertaken to evaluate the effectiveness of strategies designed to reduce missed nursing care and improve patient safety outcomes.

References

Ahansaz, N., Adib-Hajbaghery, M., & Baghaei, R. (2024). Missed nursing care and its relationship with nurses' moral sensitivity: A descriptive-analytical study. BMC Nursing, 23(1), 169.

Ahmadzadeh-Zeidi, M. J., Rooddehghan, Z., & Haghani, S. (2024). The relationship between nurses' professional commitment and missed nursing care: A cross-sectional study in Iran. BMC Nursing, 23(1), 533.

Alanazi, F. K., Lapkin, S., Molloy, L., & Sim, J. (2023). Safety culture, quality of care, missed care, nurse staffing and their impact on pressure injuries: A cross-sectional multi-source study. International Journal of Nursing Studies Advances, 5, 100125.

Al Muharraq, E. H., Alallah, S. M., Alkhayrat, S. A., & Jahlan, A. G. (2022). An overview of missed nursing care and its predictors in Saudi Arabia: A cross-sectional study. Nursing Research and Practice, 2022(1), 4971890.

Andersson, I., Eklund, A. J., Nilsson, J., & Bååth, C. (2022). Prevalence, type, and reasons for missed nursing care in municipality health care in Sweden–A cross-sectional study. BMC Nursing, 21(1), 95.

Assaye, A. M., Wiechula, R., Schultz, T. J., & Feo, R. (2022). Missed nursing care, nurse staffing levels and patient safety outcomes in low-income country acute care settings: An observational study. International Journal of Nursing Practice, 28(1), e13031.

Azzellino, G., Dante, A., Petrucci, C., Caponnetto, V., Aitella, E., Lancia, L., Ginaldi, L., & De Martinis, M. (2025). Intention to leave and missed nursing care: A scoping review. International Journal of Nursing Studies Advances, 8, 100312.

Berdida, D. J., & Alhudaib, N. (2025). Linking patient safety, caring behaviours and professional self-efficacy with missed nursing care among Filipino emergency room nurses: A structural equation model study. Journal of Clinical Nursing, 34(6), 2181–2193.

Breno, F., Marchetti, D., Cattani, D., Cosmai, S., Mancin, S., Lopane, D., & Mazzoleni, B. (2025). Contributing factors to missed nursing care: A systematic review with clinical implications for practice and patient safety. Applied Nursing Research, 152002.

Duhalde, H., Bjuresäter, K., Karlsson, I., & Bååth, C. (2023). Missed nursing care in emergency departments: A scoping review. International Emergency Nursing, 69, 101296.

Edfeldt, K., Nyholm, L., Jangland, E., Gunnarsson, A. K., Fröjd, C., & Hauffman, A. (2024). Missed nursing care in surgical care–a hazard to patient safety: A quantitative study within the inCHARGE programme. BMC Nursing, 23(1), 233.

Gong, F., Mei, Y., Wu, M., & Tang, C. (2025). Global reasons for missed nursing care: A systematic review and meta-analysis. International Nursing Review, 72(1), e13096.

Iddrisu, M., Sisala, I. M., Ibrahim, M. M., & Wuni, A. (2025). Predictive analysis of the relationship between nurses' attitudes toward patient safety and missed nursing care. BMC Nursing, 25(1), 61.

Imam, A., Obiesie, S., Gathara, D., Aluvaala, J., Maina, M., & English, M. (2023). Missed nursing care in acute care hospital settings in low-income and middle-income countries: A systematic review. Human Resources for Health, 21(1), 19.

Janatolmakan, M., & Khatony, A. (2022). Explaining the consequences of missed nursing care from the perspective of nurses: A qualitative descriptive study in Iran. BMC Nursing, 21(1), 59.

Karadaş, A., Ergün, S., & Kaynak, S. (2024). Relationship between missed nursing care and patients' trust in nurses and satisfaction with care: A cross-sectional study. Nursing & Health Sciences, 26(3), e13149.

Kohanová, D., Solgajová, A., & Cubelo, F. (2024). The association of teamwork and missed nursing care in acute care setting: A mixed-methods systematic review. Journal of Clinical Nursing, 33(9), 3399–3413.

Labrague, L. J., de Los Santos, J. A., & Fronda, D. C. (2022). Factors associated with missed nursing care and nurse-assessed quality of care during the COVID-19 pandemic. Journal of Nursing Management, 30(1), 62–70.

Li, C., Cui, X., Zhao, Y., Xin, Y., Pan, W., & Zhu, Y. (2024). Missed nursing care as a mediator in the relationship between career calling and turnover intention. International Nursing Review, 71(1), 62–68.

Nantsupawat, A., Poghosyan, L., Wichaikhum, O. A., Kunaviktikul, W., Fang, Y., Kueakomoldej, S., Thienthong, H., & Turale, S. (2022). Nurse staffing, missed care, quality of care and adverse events: A cross-sectional study. Journal of Nursing Management, 30(2), 447–454.

Nantsupawat, A., Wichaikhum, O. A., Abhicharttibutra, K., Sadarangani, T., & Poghosyan, L. (2023). The relationship between nurse burnout, missed nursing care, and care quality following COVID-19 pandemic. Journal of Clinical Nursing, 32(15–16), 5076–5083.

Nymark, C., von Vogelsang, A. C., Falk, A. C., & Göransson, K. E. (2022). Patient safety, quality of care and missed nursing care at a cardiology department during the COVID-19 outbreak. Nursing Open, 9(1), 385–393.

Papathanasiou, I., Tzenetidis, V., Tsaras, K., Zyga, S., & Malliarou, M. (2024). Missed nursing care; prioritizing the patient's needs: An umbrella review. Healthcare, 12(2), 224.

Rahmani, P., Tavani, F. M., Sheikhalipour, Z., Behshid, M., & Khodayari, M. T. (2022). The relationship between attitude of nurses toward the patient safety and missed nursing care: A predictive study. Journal of Healthcare Quality Research, 37(3), 138–146.

Sarpong, A. A., Towell-Barnard, A., Gent, L., Afrifa-Yamoah, E., & Arabiat, D. (2025). Patients' perception of missed nursing care in a tertiary hospital: A cross-sectional study. Nursing Open, 12(2), e70157.

Warshawsky, N. E., Cramer, E., Grandfield, E. M., & Schlotzhauer, A. E. (2022). The influence of nurse manager competency on practice environment, missed nursing care, and patient care quality: A cross-sectional study of nurse managers in US hospitals. Journal of Nursing Management, 30(6), 1981–1989.

Zhong, J., Simpson, K. R., Spetz, J., Gay, C. L., Fletcher, J., Landstrom, G. L., & Lyndon, A. (2023). Linking patient safety climate with missed nursing care in labor and delivery units: Findings from the LaborRNs survey. Journal of Patient Safety, 19(3), 166.