The Factor Associated with Missed Nursing Care in Hospital: A Systematic Review

Nur Miladiyah Rahmah*, Rr. Tutik Sri Hariyati†, Rita Sekarsari§, Trevino Pakasi¶

1Doctoral Nursing Program, Faculty of Nursing, Universitas Indonesia, Depok, Indonesia; 2Department of Basic Science and Fundamentals of Nursing, Faculty of Nursing, Depok, Indonesia; 3General Hospitals Hearts Center Harapan Kita, Jakarta, Indonesia; 4Department of Community Medicine, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

Abstract

BACKGROUND: Patient safety is a major concern in the health-care industry worldwide. Increasing patient safety is critical for avoiding negative outcomes in nursing care and achieving goals at the desired level of quality. One of the indicators of this quality care given to a patient is known as missed care.

AIM: Aims of this study are to explore the factors influencing missed care to improve the quality of nursing care.

METHODS: This study is a systematic review that explores the factors influencing missed nursing care in hospitals. Meanwhile, the literature search was carried out in the CINAHL PubMed, Ebsco, Science Direct, ProQuest, Willey, and Sage from 2017 to 2021.

RESULTS: The results from six databases (n = 3702) were sorted into 21 collected articles which include 17 quantitative, two qualitative, and two mixed methods. These findings highlighted fifth factors that influence missed nursing care: lack of job satisfaction, nurse staffing shortage, nurse competence level care, work environment, and nurse workload/burnout.

CONCLUSION: The factors that contribute to missed nursing care in hospitals include lack of job satisfaction, nursing staff shortages, nurse competence level, work environment, and nurse workload/burnout.

Introduction

High-quality care is the ultimate goal of the global healthcare system. Increasing patient safety is critical for avoiding negative outcomes in nursing care and meeting quality goals. Errors in healthcare are divided into two categories: Medical errors and omission errors [1]. Many recent studies have concentrated on medical errors. Omission errors, on the other hand, were directly related to the quality of nursing care, still rarely realized, and examined by nurses. Nurses provide care to meet patient needs, but in the context of a complex health-care system, sometimes the quality of care falls short of expectations [2], [3].

Missed nursing care (MNC) an omission error, was first described as any aspect of required patient care that was omitted either in part or whole or delayed by [4]. Studies the last decade have associated MNC with communication/teamwork, material resources, and labor resources [5]. Ambulation, posture changes, hygiene, oral health care, food delivery, patient education, emotional support, fluid intake and output documentation, discharge planning for patients, and general nursing surveillance activities are examples of nursing care items that are frequently overlooked by nurses. Missed care has also been linked to negative nurse outcomes such as job satisfaction and intention to leave [6]. Albsoul et al. (2019) [8]. Omission in essential care, particularly surveillance to detect and prevent deterioration, has been proposed as a mechanism by which nurse staffing levels influence mortality rates [9].

Missed nursing care has recently been identified as a factor that contributes to poor patient outcomes. Missed care may also be a predictor of hospital nursing care quality. The incidences and components of missed nursing care vary greatly between countries [10]. The majority of the previous studies examining missed nursing care and its related factors were conducted in European countries and the United States [11], where the working environment differs from that of developing countries such as Iran, [12]. Care left undone has been an ongoing concern in Korea [2]. This study demonstrated that more research is needed to investigate some study factors that can affect the occurrence of missed care in hospitals around the world.
Aim of study
The aims of this study are to explore the factors influencing missed care to improve the quality of nursing care.

Methods

Study design
This study is a systematic review that explores the factors influencing missed nursing care in general medical/surgical wards in hospitals. The CINAHL, PubMed, Ebsco, Science Direct, ProQuest, Willey, and Sage databases were searched for articles published between 2017 and 2021. The desired reporting items were analyzed to conduct systematic reviews and meta-analyses (PRISMA). The ethical considerations, such as beneficence, human dignity, and justice, were conducted and authorized by the Faculty of Nursing University’s ethical committee (No. 227/UN2.F12.DI.2.1/PPM.00.02/2021).

Search strategy
All searches essentially combined all terms discovered (and their abbreviated forms) that were factor related OR factor associated AND missed nursing care OR nursing left undone, nurse staffing AND missed nursing care OR nursing left undone, and work environment AND missed nursing care OR nursing left undone.

Selection of studies
In addition, inclusion criteria include studies examining missed nursing care (qualitative, quantitative, or mixed methods), Joanna Briggs Institute (JBI) research of sufficient quality, studies conducted in hospitals, and literature reviews that exclude primary studies, gray literature, editorials, comments, and essays. Between January 1, 2017, and September 30, 2021, English language essays about missing nursing care in the context of healthcare from the viewpoints of nurses and patients, with a particular emphasis on the antecedents of missed nursing care in hospitals.

Data extraction process
Seventy-one full-text articles were evaluated for eligibility, and the full text was independently reviewed, with 22 studies being eligible for inclusion. Evidence Table 1 contains methodological details, author(s), year of publication, aims, research design, sample/participants, setting, sample size, data analysis, and results. Meanwhile, themes and sub-themes were identified iteratively by carefully reading the findings of all included articles.

Results

Type of studies
Type of study is systematic article review. Out of a total of 981 articles, 803 were excluded based on the title, resulting in 178 articles being screened. Furthermore, 66 articles were examined for the title and abstract, and 40 were duplicated. After reading the full text, 49 articles were removed based on inclusion and exclusion criteria.

There are a total of 21 articles that meet the inclusion criteria. Among the 22 articles included, 17 were quantitative, while two are qualitative and mixed methods, respectively. All studies concentrated on the numerous factors that influence missed nursing care in hospitals. Based on the research location, the results of the review found four studies from Europe, seven studies from America, eight studies from Asia, and two studies from Australia. This shows that missed nursing care still occurs in several countries. There are 17 studies that used the MISSCARE survey’s missed nursing care instrument [4], and only four studies that did not use the missed nursing survey [9], [13], [17], [32].

According to the findings of this study, several factors have been shown to have an impact on MNCs, including demographic factors (gender and education), job satisfaction, burnout/nurse workload, nurse staffing, nurse competence, work environment, and type of nursing care unit. According to the study’s findings, female nurses made up more than 80% of those who responded [3], [6], [7], [13], [14], [15], [17], [18], [19], [20], [22], [23], [24]. Although the majority of respondents are educated RNs [2], [3], [7], [12], [13], [18], [22], [24], some studies show that the majority of respondents are diploma holders [6], [14], [17]. The study’s findings are as follows several factors, including job satisfaction, burnout, nurse staffing, nurse competence, work environment, type of nursing care unit, and nurse workload, are the root causes of missed nursing care.

The factors associated with missed nursing care
Among the 21 studies, the factors associated with missed nursing care include lower nurse staffing levels, lower nurse education and competency, and work environment. 11 articles were discovered, missed nursing care was significantly associated with lower nurse staffing levels. Inadequate management support, poor handover, and communication breakdown between the nursing team and medical staff, insufficient time to complete
This study discovered that interruptions to nursing care, missed care, as well as a relationship between missed care and death.

The study’s results indicated a correlation between missed care, nurse work conditions, and patient-to-nurse ratios. No correlation between skill mix and missing care was identified.

Employer satisfaction and job title were shown to be associated with fewer missed care appointments. The causes for missing care showed a better correlation with satisfaction and the performance of the Missed Nursing Care team.

The research discovered that a high rate of unfinished care tasks constituted an operant mechanism, or the adverse impacts of high patient-to-RN ratios and high RN workloads on patient safety outcomes.

This study discovered that interruptions to workflow, "perceived" lack of management support, poor handover, and communication breakdown between the nursing team and medical staff were all important factors influencing MNC.

The study’s findings emphasize the importance of recognizing specific aspects of missed nursing care as well as the various roles within nursing. They point to the need for improved open, sincere, and structured communication, as well as mutual respect and trust among healthcare teams in Icelandic hospitals.

Ahmad A., et al. Facts Associated ith Missed usin

<table>
<thead>
<tr>
<th>Table 1: An overview of research on the factors influencing missed nursing care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author/Year/Country</strong></td>
</tr>
<tr>
<td>Ball et al., (2018) [9]</td>
</tr>
<tr>
<td>Belgium, England, Finland, Ireland, the Netherlandes, Norway, Spain, Sweden, and Switzerland</td>
</tr>
<tr>
<td>Cho et al., (2020) [2]</td>
</tr>
<tr>
<td>China</td>
</tr>
<tr>
<td>Simonetti et al., (2021) [13]</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Moura et al., (2020) [14]</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Al-Faouri et al., (2021) [15]</td>
</tr>
<tr>
<td>Jordan</td>
</tr>
<tr>
<td>Salvie et al., (2020) [16]</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>Thomas-Hawkins et al., (2020) [17]</td>
</tr>
<tr>
<td>United States of America</td>
</tr>
<tr>
<td>Aliboul et al., (2019) [7]</td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Hafta et al., (2019) [12]</td>
</tr>
<tr>
<td>Ethiopia</td>
</tr>
<tr>
<td>Blackman et al., (2018) [18]</td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Braggadottir and Kalisch, (2018) [19]</td>
</tr>
<tr>
<td>United States of America</td>
</tr>
<tr>
<td>Labrague et al., (2020) [3]</td>
</tr>
<tr>
<td>Oman, Philippines</td>
</tr>
<tr>
<td>Kim and Lee, (2020) [22]</td>
</tr>
</tbody>
</table>
tasks, and insufficient quality improvement (Albsoul et al., 2019, Ball et al., 2018). Similarly inadequate staffing was linked to an increase in the number of missed activities as well as heavy workloads [2], [16].

The finding showed that the patient to nurse ratio and staff skill mix imbalances. An increase in nurse staffing is associated with a reduction in missed nursing care. Nurses working in high-staffing units were significantly less likely to miss the following seven nursing care elements: turning, feeding, meal preparation, bathing/skin care, mouth care, patient assessments during each shift, and assistance with toileting [12], [34].

Nurse staffing levels and overtime work were found to be significantly related to nurses’ perceptions of patient safety, quality of care, and care left undone [35]. In other study revealed that the implementation of the primary nursing model and the reduction of missed nursing care [14] and the lower patient perceptions of staffing adequacy were linked to more missed care and adverse events [8]. This creates new problem and concerns that the nurses need more staff adequate. A shortage of nursing staff can result in increased workload for nurses, missed nursing care, and decreased patient safety.

The other findings of this study also show similarities as well as differences in the characteristics of RNs and PNs, and their reports. There are four articles stated that the lower nurse and competency were significantly associated with missed nursing care. All nursing elements normally performed by PNs, as well as the majority of shared elements, were rated significantly

<table>
<thead>
<tr>
<th>Author/Year/Country</th>
<th>Aims and objectives</th>
<th>Design</th>
<th>Instrument missed nursing care</th>
<th>Sample size and setting</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zeleníková et al., (2020) [8] Czech</td>
<td>The purpose of the study was to discover the relationship between nurses’ perceptions of the professional practice environment, missed nursing care, and nurse satisfaction.</td>
<td>A descriptive correlational study was conducted</td>
<td>MISSCARE survey [4]</td>
<td>513 general nurses and practical nurses from a variety of organizational</td>
<td>Missed nursing care is associated with the professional practice environment, unmet patient care needs, job satisfaction, burnout, and intention to leave.</td>
</tr>
<tr>
<td>Dutra and Guirardello, (2021) [24] Brazil</td>
<td>To describe the nurse work environment and how it relates to missed nursing care, the safety climate, and job satisfaction.</td>
<td>Cross-sectional study.</td>
<td>MissCare-Brasil survey</td>
<td>219 from 2 hospitals. Inclusion criteria were nurses and nursing technicians who provided patient care in adult clinical medical/surgical and critical units, with at least six months of experience.</td>
<td>The study discovered that nursing professionals who perceived a good environment reported fewer reasons for missed nursing care, higher job satisfaction, and a more positive perception of the safety climate.</td>
</tr>
<tr>
<td>Bagnasco et al., (2020) [25] Italy</td>
<td>The study was examining the effect on nurses’ missed care decision-making processes in acute hospital pediatric care.</td>
<td>Semi-structured interviews were used to conduct a descriptive qualitative investigation.</td>
<td>A cross-sectional study</td>
<td>Participants involved the research 20 nurses from one Italian pediatric hospital.</td>
<td>The thematic analysis revealed four distinct themes: nurses’ value systems, hospital logistics, structures, and resources, prioritizing procedures, and the informal caregiver role.</td>
</tr>
<tr>
<td>Chegini et al., (2020) [26] Iran</td>
<td>The research examines the variables related with missing nursing care.</td>
<td>A cross-sectional study</td>
<td>MISSCARE survey [4]</td>
<td>215 nurses working medical-surgical wards of eight public and private hospitals</td>
<td>Workplace satisfaction, intent to leave, missed nursing care, and other factors were discovered to be factor related. Missed nursing care was associated with the number of patient discharges and satisfaction with teamwork.</td>
</tr>
<tr>
<td>Campbell et al., (2020) [27] USA</td>
<td>The study was to ascertain the extent and factors influencing missed nursing care.</td>
<td>A cross-sectional study</td>
<td>MISSCARE survey [4]</td>
<td>950 nurses completed by inpatient registered nurses</td>
<td>Missed nursing care scores are generally related to the number of patients assigned to each nurse and the work environment. Missed nursing care is influenced by the type of unit, the quality of nursing care, and the work environment.</td>
</tr>
<tr>
<td>Liu et al., (2021) [30] China</td>
<td>The objectives of this longitudinal study were to compare changes in quality of care, nurse job outcomes, nursing work environment, non-professional tasks, and nursing care left undone in Chinese acute hospitals</td>
<td>A cross-sectional study</td>
<td>MISSCARE survey [4]</td>
<td>A prospective two-stage panel study was conducted in 108 adult medical and surgical units from 23 hospitals in Guangdong province, China, in 2014 and repeated in 2018. There were 172 focal nurses and 123 incoming nurses from 32 nursing wards spread across eight hospitals.</td>
<td>A better nursing work environment was associated with improved nurse job outcomes and quality of care when it came to hospital organizational factors on quality-of-care changes. Higher levels of nurse job burnout were linked to more non-professional tasks.</td>
</tr>
<tr>
<td>Srulovicz and Drach-Zahavy, (2017) [31] Israel</td>
<td>The goal of this study was to test the combined effects of personal and ward accountability on missed nursing care by using assessments of missed nursing care from both focal (the nurse whose missed nursing care was examined) and incoming (the nurse responsible for the same patients on the following shift) nurses.</td>
<td>A cross-sectional design, where nurses were nested inwards</td>
<td>MISSCARE survey [4]</td>
<td>The sample included 1583 nurses in 371 hospitals, containing survey responses is from 31,650 RNs.</td>
<td>According to the results of this research, personal factors were not connected with missing nursing care for nurses with low ward responsibility. As a consequence, ward responsibility had a moderating influence on missing nursing care as compared to personal accountability. It is worth noting that the lowest rate of missing nursing care was reported in environments with a high degree of individual and ward responsibility.</td>
</tr>
<tr>
<td>Park et al., (2018) [33] USA</td>
<td>The purpose of this study was to determine which aspects of the practice environment were associated with missed nursing care in acute care hospital units in the United States.</td>
<td>A descriptive correlational study</td>
<td>The National database of nursing indicators (NNDQI)</td>
<td>The sample included 1583 nurses in 371 hospitals, containing survey responses is from 31,650 RNs.</td>
<td>According to the findings, approximately 84 percent of nurses on medical and surgical units failed to perform at least one necessary care activity. Previous good environments were associated with lower levels of missed care. The impact on missed care varied according to the practice environment’s characteristics.</td>
</tr>
</tbody>
</table>
lower by RNs than by PNs [19], other study revealed there was a significant difference in ratings of reasons for MNC between RNs and PNs. When each of the three subscales of reasons was examined, two were found to be significantly different between RNs and PNs, namely, labor resources and material resources [3], in other hand the high number of unfinished care activities was an operant mechanism, or pathway, for the negative effects of high patient-to-RN ratios and high RN workloads on patient safety [31].

Meanwhile, in other study showed leadership and autonomy in clinical practice, control over practice, communication about patients, teamwork, conflict resolution, staff relationships, and cultural sensitivity are all components of a professional practice environment[26]. Lower levels of missed care were found to be significantly associated with good environments. The effect on missed care varied according to the practice environment's characteristics [36].

Discussion

Job satisfaction

According to the findings of the article review, one of the factors that can influence missed nursing care is job satisfaction Al-Faouri et al. [15] stating that higher levels of satisfaction are associated with lower rates of missed nursing care. This study is consistent with previous research [19], which investigated the professional environment of Czech nurses and its relationship to missed care and nurse satisfaction. Teamwork is one of the factors that contribute to nurse job satisfaction. Physicians and nurses working together in a team toward a common goal are essential for better patient care, but interdisciplinary collaboration is often poor. Teamwork and collaboration among health-care professionals may support better patient education and self-engagement including involvement in decision-making and self-care [6], [15].

Nurse staffing shortage

Many countries have done extensive research on the relationship between missed nursing care and hospital nurse staffing levels. As a result, nurses working in high-staffing units were significantly less likely to overlook nursing care elements [28]. According to reports, nurses who cared for more patients and perceived inadequate staffing missed more nursing activities. More non-professional tasks were associated with higher levels of nurse job burnout, implying a possible causal relationship. Workload due to non-professional tasks consumes time available for professional nursing work and may jeopardize nurses' professionalism, causing stress, and job burnout [29]. High patient-to-RN staffing ratios, high RN workloads, and unfinished nursing care are all major contributors to unsafe patient shift change periods and lower overall safety [17].

However, the ones working in high-staffing units reduced the likelihood of missing the following nursing care elements: turning the patient, feeding, bathing/skin care, patient assessment during each shift, and toileting assistance. Patient to nurse ratio and workloads had a direct and indirect effect on the safety outcome of nurses to complete key nursing care activities; hence, a primary nursing model needs to be implemented to reduce missed nursing care [14]. Cho et al., (2017), explained lower patient-perceived staffing adequacy is linked to more missed care and adverse events. Furthermore, poorer staffing is associated with increased missed activities and heavy workloads such as a lack of management support, ineffective handover, a breakdown in communication between the nursing team and the medical staff, a lack of time to complete tasks, and a lack of quality improvement [16]. Appropriate workforce policies and practices are required to reduce the risk of missed care and patients dying as a result of factors under the control of the health system, such as safe nurse staffing.

Nurse competence level care

The second result is the associations of nurse competencies with missed nursing care as indicated by five articles. This competence include caring, compassion, and decision making, while the behavior is predicted as missed nursing and adverse events, which is reinforced by ensuring the nurses document every caring activities [20]. The culture of caring is facilitated within the organization by implementing caring-focused strategies into hospital in-service education programs, seminars and workshops, simulation activities, and other professional development activities. Caring is an essential value in nurses that has been significantly linked with quality nursing care. It primarily consists of actions directed toward meeting patients’ care needs and promoting patients’ safety, and may thus reduce the occurrence of missed care tasks and adverse events [20]. In other study, compassion competence was found to be negatively related to missed nursing care and burnout, but positively related to compassion satisfaction, secondary traumatic stress, and quality of life [35].

Nurses who embrace the knowledge, skills, and attitudes of compassion competence are more likely to respond sensitively to various patients’ needs and are less likely to omit required nursing care. Furthermore, knowledgeable and insightful, compassionate nurses have better communication skills, allowing them to better meet the educational needs of their patients [21].

Nurse competence can be attained through continuing education for nurses. Professional nurses,
who perform numerous non-nursing tasks, may be neglecting several critical nursing tasks.

**Work environment**

The professional practice environment has a significant impact on missed nursing care which often leads to adverse events and negatively affects the quality of patient safety. Hence, an overall of five types of research has been conducted to explore the association of work environment with missed nursing care and the result showed that an improved work environment and staffing changes reduce the prevalence of missed nursing care in hospitals. Better nursing practice environments are associated with less missed nursing care [6]. A collaborative and excellent team performance may result in value and process improvement, care innovation, and new initiatives, as well as improved performance and work commitment and reduced nurse absenteeism [26]. Furthermore, other study revealed nurses’ personal accountability was found to be negatively related to missed nursing care, whereas ward accountability was not, emphasizing the importance of considering the source of accountability, namely to whom one feels accountable. Hence, hospitals and nursing management need to consider maintaining suitable nurses can use practice environments to reduce missed care activities and thus improve the quality of nursing care.

This review of conceptual framework literature provides a better understanding of the phenomenon of missed/rationed/unfinished nursing care. It implies that the phenomenon is primarily caused by a lack of time, which causes the process of implicit rationing of nursing care due to the need to prioritize. Nursing activities are left undone in such an environment among nurses. At the same time, evidence serves as a link between nursing staff and patient outcomes. According to research findings, the phenomenon of missed care is routinely practiced by hospital nurses all over the world, and it occurs in all categories of nursing care (e.g., documentation of care, emotional care, and support, physical care, or coordination of care).

**Nurse workload/burnout**

Nurse outcomes are equally noteworthy and include increased staff burnout and turnover rates, job dissatisfaction and role conflict, and nurses struggling with increased acuity. Compassion competence was found to be a significant predictor of low burnout and high compassion satisfaction, which is consistent with previous research. Burnout is frequently associated with hopelessness and an inability to provide adequate health care [34]. Missed nursing care due to a lack of time or resources has been linked to RN burnout and job dissatisfaction. Improved work environments with enough staff have the potential to improve care and nurse retention [37].

**Strength and limitations**

In this study, various places in the world were covered, thereby showing that missed nursing care happens in many countries. The information presented is still relevant because it was conducted between 2017 and 2021. However, the limitation was the lack of articles with experimental designs.

**Conclusions**

This study provides an overview of the factors influencing missed nursing care in hospital settings, such as lack of job satisfaction, nursing staff shortages, nurse competency level, work environment, and nurse workload/burnout. In hospitals, a high workload for nurses, insufficient staff, and an unsupportive work environment can lead to a lack of caring and the occurrence of missed nursing care. Therefore, it takes the role of supervision and direct assistance from managers to be able to create adequate nursing staff, improve their competency, and foster a positive work environment.

**Recommendations**

We should be concerned about missed nursing care because it is still a poorly understood phenomenon. This study important as it provides comprehensive information about the factors of association of missed nursing care. Increased instances of missed nursing care may have a negative impact on patient outcomes in the ways described.

As a result, we recommend that it be researched further in order to further explore time-consuming activities as the core of nursing care, and that adequate nurse staffing be ensured for nurses to be available to provide the core of nursing care.
Acknowledgments

The author extends their gratitude to everyone who encouraged and assisted us in carrying out this study and thanks to STIKes Bani Saleh who provided funding for this study.

References


