

# The Relationship Between Missed Nursing Care and Teamwork: A Literature Review

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## ABSTRACT

**Background:** The prevalence of missed nursing care and its impact on patient safety and healthcare costs is a growing concern, particularly in the context of the shortage of nursing staff. The relationship between missed nursing care and teamwork has implications for patient outcomes and the trustworthiness of healthcare organizations. The purpose was to determine the relationship between missed nursing care and teamwork in hospital settings.

**Methods:** Literature review utilized databases such as CINAHL, SCOPUS, PubMed, MEDLINE, and Science Direct.

**Results:** The review showed that teamwork among nurses is associated with lower levels of MNCs. The reasons for missed nursing care are related to labor resources, communication, and material resources. MNC types include discharge planning, patient education, mouth care, ambulation, monitoring of intake and output, turning patients, vital signs assessment, blood sugar monitoring, medication effectiveness assessments, and attendance at interdisciplinary care conferences.

**Conclusions:** There is a need for targeted interventions and strategies to improve teamwork and reduce missed nursing care in healthcare settings.

**Key-words:** Missed nursing care, Nursing, Teamwork, and Jordan

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## INTRODUCTION

The growing prevalence of chronic diseases and multimorbidity has heightened the demand for nursing care, requiring nurses to deliver complex and comprehensive care to ensure patient safety.<sup>1</sup> Nursing teams often struggle to deliver cost-effective, efficient, and high-quality care,<sup>2</sup> especially in light of the shortage in the number of nursing staff.<sup>3</sup> Caldwell-Wright<sup>5</sup> identified Missed Nursing Care (MNC) as a worldwide issue<sup>4</sup>; occurs when nursing teams are unable to complete all their duties during a shift. According to Jones, Hamilton, and Murry, 55–98% of nurses worldwide report not completing at least one basic nursing care task during their last shift.<sup>6</sup>

Moreover, failure to address MNC can lead to numerous negative consequences and adverse events, with a 16% higher risk of death for every 10% increase in reported missed care.<sup>7</sup> Healthcare costs will likely to rise due to prolonged hospital stays and readmissions to treat complications from missed care.<sup>8</sup> Consequently, MNC can undermine the trustworthiness of healthcare organizations.<sup>9</sup>

On the other hand, effective teamwork is essential for ensuring patient safety and quality care.<sup>10–12</sup> However, MNC may negatively impact teamwork, leading to increased stress, reduced trust among team members, and disruptions the flow of care.<sup>13</sup> Consequently, resulting in adverse patient outcomes.<sup>11</sup>

In this paper, the literature review paper is introduced, followed by the search strategy, the PRISMA flow diagram, relevant study titles, practical implications, conclusion, and a reference list. Additionally, the literature review matrix for the included studies is provided in Appendix A.

The purpose of this paper is to conduct a literature review on the relationship between MNC and teamwork. Although several worldwide studies have explored this topic, none have been conducted in Jordan. Therefore, this paper aims to review the literature on this topic to identify the research gap, particularly in the context of Jordanian healthcare. Further research is needed to understand how teamwork influences the occurrence of MNC, which could lead to targeted interventions and strategies for improving teamwork and reducing MNC in healthcare settings.

This literature review is supposed to provide answers to the questions: What are the reasons and types of missed nursing care? And What is the relationship between missed nursing care and teamwork, and what are the factors that affect it?

## METHODOLOGY

The paper is a literature review that examines the relationship between MNC and teamwork within hospital settings, specifically focusing on factors influencing both. It aims to identify gaps in the existing research, particularly in the Jordanian context. The review is organized into seven sections: the search strategy, reasons for MNC, types of MNC, the relationship between MNC and teamwork, the impact of teamwork and other factors on MNC, practical implications, and a conclusion that highlights the literature gaps and the study's potential contributions to nursing knowledge and practice. Thirteen relevant studies were reviewed.

**Search Strategy:** To conduct a comprehensive literature review, several electronic databases were used, including CINAHL, SCOPUS, PubMed, MEDLINE, and Science Direct. A systematic search strategy was developed using specific keywords that were either used independently or in combination with Boolean operators to refine the results effectively. The exact search terms included: 'missed nursing care,' 'missed care,' 'rationing of nursing care,' 'implicit rationing,' 'teamwork,' 'nursing,' and 'Jordan.'

The Boolean operators employed in the search strategy included AND, OR, and NOT. The AND operator was used to combine different concepts that needed to appear in the same article. For instance, the search string 'missed nursing care' AND 'Jordan' aimed to find articles specifically addressing missed nursing care within the context of Jordan. Conversely, the OR operator was applied to include synonyms or related terms to broaden the search. For example, the string 'missed nursing care' OR 'missed care' was created to capture articles that might refer to the phenomenon using either term, thus increasing the number of relevant results. The NOT operator was utilized to exclude certain terms or topics that were not relevant to the review, such as 'missed nursing care' NOT 'COVID-19' to filter out studies discussing missed care in the context of the COVID-19 pandemic. (Table 1).

**Table 1: Boolean Search Table**

Boolean Operator	Search Terms	Purpose
AND	'Missed nursing care' AND 'teamwork'	To refine the search by ensuring that both terms appeared in the results.
	'Missed care' AND 'Jordan' AND 'Nursing'	To find studies that specifically address missed care among nurses in the context of Jordan.
OR	'Missed nursing care', 'Missed care', 'Rationing of nursing care', OR 'Implicit rationing '	To expand the search by including any synonyms of the specified keywords in the results. This will return articles that contain any of these terms.
NOT	'Missed nursing care' NOT 'COVID-19'	To exclude certain terms or topics that were not relevant to the review

In addition, the articles included in this review were selected based on the inclusion and exclusion criteria. The inclusion criteria were articles explicitly related to the purpose of the study and its variables, whether by title or abstract; articles used qualitative, quantitative, mixed methods, or systematic review approaches; articles published mainly within the last eight years from 2017 to 2024, except for one classic article mentioned for its importance due to the large sample size. On the other hand, the exclusion criteria include articles published in newspapers, articles related to MNC in primary care, articles related to MNC in nursing homes, and articles related to MNC during the Coronavirus disease (COVID-19) pandemic.

All articles were reviewed to make sure there were no duplicates. After that, the article titles were examined to determine how relevant they were to the subject. The remaining articles' abstracts were then examined to determine their significance and relevance

to the topic. To determine significance, relevance, and influence in terms of making a major contribution to the understanding of the current state of knowledge, the full texts of those selected articles were finally examined in depth. Ultimately, a preliminary search in the databases yielded 238 references. After the titles were screened to remove duplicates, 175 studies were found that need more investigation. Fifty-three studies were kept for full-text examination after further abstract screening, 40 of these studies were excluded because they did not fit the criteria for inclusion. Therefore, 13 research studies were eligible for the current review (Appendix A), one systematic mixed method review, one quasi-experimental study, eight cross-sectional studies, one qualitative study, and one case study. Also, the PRISMA flow diagram displays the steps involved in the search and selection process as well as the number of studies at each level. See (Figure 1).

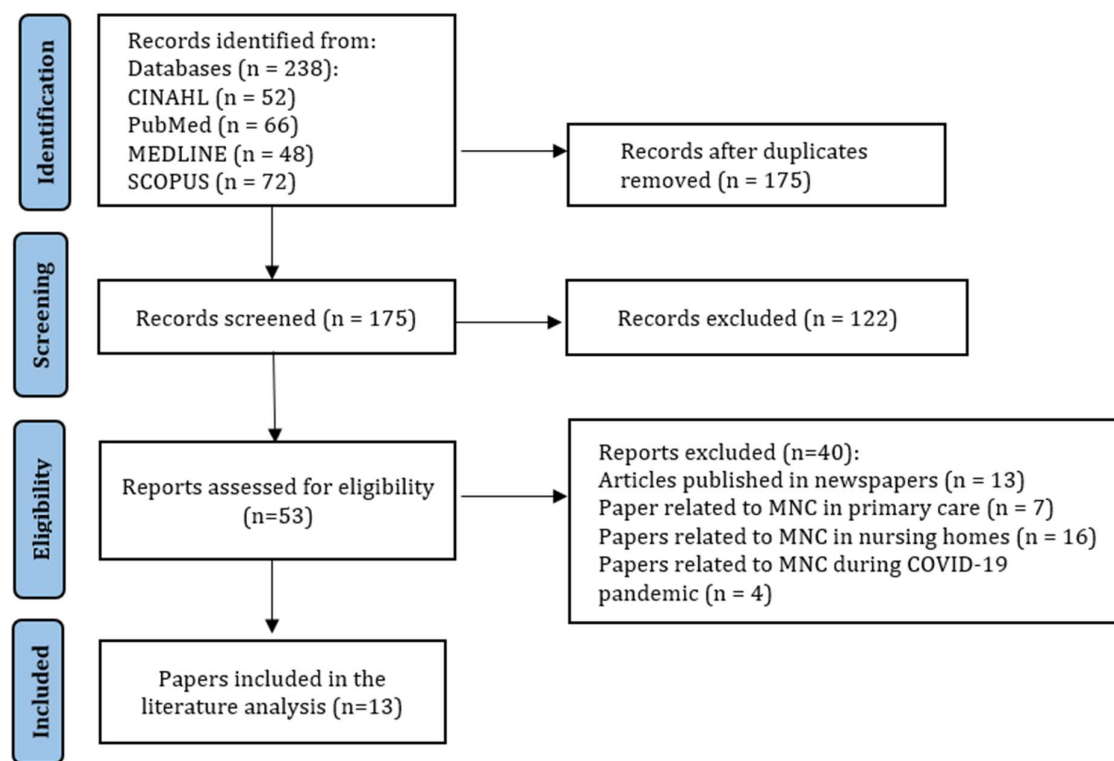


Figure 1: PRISMA Flow Diagram

## RESULTS

**Missed Nursing Care Reasons:** The literature reviewed indicates several key reasons for MNC observed in various studies conducted in different settings. These reasons include labor resources, communication/teamwork issues, and material resources.<sup>2,14-16</sup> A significant finding across multiple studies is the essential role of labor resources in contributing to MNC. For instance, Marguet and Ogaz<sup>2</sup> conducted a quasi-experimental study with 21 nurses in a medical-surgical unit in Kentucky, revealing

that labor resources were the foremost reason for MNC. A study by Chapman et al<sup>16</sup> surveyed 334 nurses across various wards in four Australian hospitals and confirmed that labor resources were the main cause, followed closely by material resources and communication/teamwork issues. Additionally, a cross-sectional study by Albsoul et al<sup>14</sup> in Jordan, involving 672 Registered Nurses (RNs) working in medical and surgical wards in ten Jordanian hospitals, found that labor resources were the most frequently cited reason for MNC.

## Appendix A: Literature Review Matrix for Included Studies

Author / Year	Purpose	Design	Sample & Setting & Country	Instruments	Results
Kalisch & Lee (2010) <sup>18</sup>	To assess whether the existence or lack of nursing teamwork leads to MNC	A cross-sectional, descriptive study	2216 nursing staff members (1719 staff nurses (RNs / LPNs) and 491 NAs). In 50 medical-surgical, intermediate, intensive care, and rehabilitation units in 4 hospitals located in the Mid-west US.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• A negative relationship between MNC and teamwork</li> <li>• Factors influencing MNC include teamwork overall scores, education, shift worked, years of experience in the occupation.</li> <li>• Overall teamwork scores contribute to approximately 11% of the variance in MNC</li> <li>• ICUs teams report higher overall teamwork scores compared to intermediate, medical-surgical, and rehabilitation units.</li> <li>• Nurse Assistants report lower levels of MNC compared to RNs.</li> <li>• Staff members with 5-10 years of experience and those with over 10 years perceive greater MNC than individuals with less than 6 months of experience.</li> </ul>
Chapman et al. (2017) <sup>16</sup>	To explore the impact of teamwork on instances of MNC	A descriptive exploratory study.	334 nurses working in medical, surgical, ICUs, and specialist wards including coronary care, emergency departments, and rehabilitation units at four hospitals in Australia.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• The most frequently MNC components included ambulation three times daily, repositioning patients every two hours, and providing mouth care</li> <li>• Patient assessments, focused reassessments, and bedside glucose monitoring were reported as rarely missed.</li> <li>• MNC Reasons were inadequate labor, material resources, and communication issues</li> <li>• MNC scores varied across units.</li> <li>• Different staff members had varying perceptions of MNC, with enrolled nurses perceiving it as less significant than RNs.</li> <li>• There was an inverse relationship between MNC and teamwork, with teamwork influencing approximately 9% of MNC instances.</li> <li>• Factors predicting MNC included teamwork, gender, age, years of experience, hospital qualifications, weekly working hours, and overtime hours.</li> </ul>
Marguet & Ogaz (2019) <sup>2</sup>	To assess whether a train-the-trainer teamwork intervention would influence the perception of MNC and teamwork	Quasi-experimental design (pre-test and posttest).	21 nurses working in a medical-surgical unit located in a Midwest metropolitan hospital -Kentucky-US.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• Both teamwork and MNC saw an increase in pretest and posttest survey results.</li> <li>• The most commonly missed elements of MNC included mouth care, ambulation, and monitoring intake and output, whereas patient assessment, focused reassessment, and glucose monitoring were the least frequently missed.</li> <li>• The primary reasons for MNC were attributed to labor resources, followed by material resources and issues related to communication and teamwork.</li> </ul>
Yaghoubi et al. (2019) <sup>22</sup>	To examine the relationship between MNC and teamwork.	Case study	196 nurses from 11 care units, including intensive, general, rehabilitation, and medical-surgical care units in a military hospital in Tehran.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• The level of MNC was found to be moderate across various care units.</li> <li>• There are notable differences in teamwork and MNC present among intensive, general, rehabilitation, and medical-surgical care units.</li> <li>• Effective teamwork accounts for 12.6% of MNC.</li> <li>• Higher levels of teamwork are linked to a lower incidence of reported MNC.</li> </ul>
Ghezeljeh et al. (2020) <sup>13</sup>	To assess the connection between MNC and the teamwork	Cross-sectional study- predictive correlational	213 nurses working in the emergency department in a hospital affiliated with the University of Medical Sciences in Iran.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• The level of MNC was found to be moderate.</li> <li>• The teamwork score among nurses was relatively high.</li> <li>• An inverse relationship was observed between teamwork and MNC.</li> <li>• Team leadership and mutual support accounted for 14% of the variance MNC.</li> </ul>

Author / Year	Purpose	Design	Sample & Setting & Country	Instruments	Results
Soliman & Eldeep (2020) <sup>21</sup>	To assess the correlation between workload, teamwork, and MNC	Correlational design	207 ICU nurses at Fayoum University hospitals. ICUs at Kom Hamada central hospital, Damanhour fever hospital, and Damanhour chest hospital. Egypt.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• Less than half of the nurses surveyed demonstrated moderate levels of MNC and teamwork.</li> <li>• A highly significant negative relationship was found between teamwork and MNC.</li> <li>• Enhancing educational qualifications resulted in lower MNC scores, while an increase in experience levels also led to reduced MNC scores.</li> <li>• Working night shifts and longer shift durations were associated with higher MNC scores.</li> <li>• Advancements in educational qualifications and older age contributed to higher teamwork scores.</li> </ul>
Zhao et al. (2021) <sup>23</sup>	To systematically assess the impact of Teamwork on MNC and explore ways to enhance teamwork.	A systematic mixed methods review.	Data between May 2000 and May 2020 were collected from five databases (CINAHL, EMBASE, Web of Science, PubMed, and Cochrane databases). People's Republic of China.	Using the 2018 version of the mixed approach assessment tool	<ul style="list-style-type: none"> <li>• A total of seventeen studies were analyzed regarding effective teamwork to reduce MNC.</li> <li>• Teamwork has beneficial effects in diminishing MNC.</li> <li>• Subthemes for enhancing teamwork and decreasing MNC include: <ul style="list-style-type: none"> <li>- Improving knowledge and skills</li> <li>- Promoting effective communication</li> <li>- Building mutual trust</li> <li>- Reducing turnover intention</li> <li>- Reasonable staffing</li> <li>- Division of responsibilities</li> <li>- Cultivating team consciousness</li> </ul> </li> <li>• Teamwork plays a protective role in mitigating MNC.</li> <li>• Teamwork can help lower MNC associated with nontherapeutic items.</li> </ul>
Ntezimana et al. (2022) <sup>20</sup>	To determine the correlation between the level of nursing teamwork and MNC	Cross-sectional descriptive and correlation design.	201 Nurses- at the University Teaching and Referral Hospital of Kigali in Rwanda.	MISSCARE survey and NTS	<ul style="list-style-type: none"> <li>• A significant correlation between nursing teamwork and MNC.</li> <li>• The majority of nurses indicated experiencing moderate levels of nursing teamwork</li> <li>• Enhanced nursing teamwork resulted in a reduction in MNC.</li> <li>• Almost half of the participants in the study assessed the level of MNC as moderate (46.73%).</li> </ul>
Albsoul et al. (2023) <sup>14</sup>	To understand how RNs perceive MNC. Additionally, it aimed to discover the differences in reported reasons for MNC across public, private, and university healthcare sectors.	Cross-sectional design.	A sample of 672 RNs working in medical and surgical wards in 10 acute care hospitals in Jordan.	MISSCARE survey	<ul style="list-style-type: none"> <li>• Participants identified labor resources, material resources, and issues related to communication and teamwork as the most common causes of MNC, with varying levels of importance based on the type of hospital.</li> </ul>

Author / Year	Purpose	Design	Sample & Setting & Country	Instruments	Results
AL-Mnaizel & AL-Zaru (2023) <sup>15</sup>	To examine the correlation between job satisfaction and MNC	A descriptive, cross-sectional design.	181 nurses working in critical care units in Jordan from three hospitals (one teaching hospital and two government hospitals).	MISSCARE survey	<ul style="list-style-type: none"> <li>The most common MNC tasks include repositioning patients every two hours, providing mouth care, educating patients, conducting focused reassessments, and planning for discharge.</li> <li>Tasks performed less frequently in MNC involve monitoring intake and output, checking vital signs, offering timely assistance with toileting, assessing medication effectiveness, and participating in interdisciplinary care conferences.</li> <li>The most common reasons for MNC were communication/teamwork issues, labor resources, and material resources, respectively.</li> </ul>
Beiboer et al. (2023) <sup>5</sup>	To explore how nursing teams collaborate to prevent or minimize MNC, as well as how clinical leadership skills and environmental factors affect teamwork.	Exploratory qualitative design with focus group interviews.	16 RNs who worked in clinical inpatient wards in 4 Dutch hospitals- Netherlands participated in three online focus groups.	Focus Group Interviews	<ul style="list-style-type: none"> <li>Thematic analysis identified several key themes:               <ul style="list-style-type: none"> <li>Nurses engage in teamwork and apply clinical leadership skills in diverse ways. Some collaborate in pairs with shared objectives, whereas others work independently. This variability affects teamwork.</li> <li>Nurses often serve as informal educators, evident in their mutual teaching and learning, which enhances constructive teamwork.</li> <li>Environmental elements play a role in shaping teamwork dynamics and contribute to reducing or preventing MNC.</li> </ul> </li> </ul>
Nobahar et al. (2023) <sup>17</sup>	To identify the correlation between teamwork, moral sensitivity, and MNC	A descriptive cross-sectional study	200 ICU nurses working at teaching hospitals affiliated to Semnan and Shahroud Universities of Medical Sciences, Semnan, Iran.	TeamSTEPS (T-TPQ), and MISSCARE Survey.	<ul style="list-style-type: none"> <li>There was a notable negative correlation between teamwork and MNC.</li> <li>The clinical experience of ICU nurses positively influenced teamwork while negatively impacting MNC.</li> <li>The age of ICU nurses served as a negative predictor for MNC.</li> <li>ICU nurses exhibited an acceptable level of MNC but reported low levels of teamwork</li> <li>The highest mean score for MNC was observed in the dimension of "discharge planning and patient education," while "care intervention with ongoing assessment," which encompasses monitoring vital signs, blood sugar, intake, and output, received the lowest score.</li> </ul>
Kohanová et al. (2024) <sup>19</sup>	To summarize the current empirical research on the relationship between teamwork and MNC.	A mixed-method systematic review study.	The search was conducted in February 2023 across four scientific databases: ProQuest, PubMed, Scopus, and Web of Science, selected based on their institutional accessibility.	The SPIDER tool	<ul style="list-style-type: none"> <li>18 studies indicated a relationship between teamwork and MNC.</li> <li>The ratings of teamwork varied from weak to moderate but demonstrated a significant correlation with the overall MNC score.</li> <li>Teamwork emerged as a statistically significant predictor of MNC in acute care environments.</li> </ul>

**NTS:** Nursing Teamwork Survey, **MNC:** Missed Nursing Care, **RNs:** Registered Nurses; **ICU:** Intensive Care Unit; **US:** United States; **T-TPQ:** Team Perception Questionnaire; **SPIDER:** Sample Phenomenon of Interest, Design, Evaluation, type of Research.

Communication and teamwork were also identified as critical factors impacting MNC. In a study by AL-Mnaizel and AL-Zaru<sup>15</sup> which included 181 nurses working in critical care units in Jordan, communication and teamwork issues were recognized as the leading causes of MNC, with labor and material resources following closely behind.

**Missed Nursing Care Types:** Through the reviewed literature, it has been discovered that MNC plays an essential role in both basic patient's care and psychological and educational care, as perceived by nursing staff. Many authors conducted a set of studies to uncover the most common missing care types or activities.<sup>2,15,16</sup> In a cross-sectional study conducted by Nobahar, Ameri, and Goli,<sup>17</sup> the results showed that discharge planning and patient education were the most frequently missed care activities among 200 Intensive Care Unit nurses working at teaching hospitals in Iran. On the other hand, Marguet and Ogaz<sup>2</sup> study in USA results identified mouth care, ambulation, and monitoring of intake and output as the most frequently missed care activities. Also, Chapman et al<sup>16</sup> study highlighted that ambulation three times a day, turning the patient every two hours, and mouth care as the most care activities that were missed. Meanwhile, AL-Mnaizel and AL-Zaru<sup>15</sup> study results identified turning patients every two hours, mouth care, patient education on illness and tests, focused reassessments, and discharge planning as frequently missed care elements.

On the other hand, the reviewed literature showed that missed care activities among nurses are common.<sup>2,15,16</sup> Thus, this highlights the need to identify even the least frequently missed elements or activities of care in healthcare settings. According to Nobahar, Ameri, and Goli<sup>17</sup> study, the least frequently reported missed care activities among nurses were assessing vital signs, intake and output, and blood sugar. Furthermore, Marguet and Ogaz<sup>2</sup> study indicated that the least frequently missed care activities were glucose monitoring, focused reassessment based on patient condition, and patient assessments completed every shift. Also, Chapman et al<sup>16</sup> study results revealed that the majority of participants stated that they never, seldom, or occasionally missed bedside glucose monitoring as ordered, patient assessments performed every shift, and focused reassessments based on the patient's status. Additionally, AL-Mnaizel and AL-Zaru<sup>15</sup> study showed that less commonly missed care activities include monitoring vital signs, medication effectiveness assessments, timely toileting assistance, monitoring intake /output, and attending interdisciplinary care conferences.

**The Relationship between Missed Nursing Care and Teamwork:** Numerous nursing studies have investigated the relationship between teamwork and MNC. An analysis of thirteen studies demonstrated that effective teamwork among nurses was linked to lower levels of MNC in ten out of those thirteen studies.<sup>2,13,16-23</sup> For instance, Kalisch and Lee<sup>18</sup> included

2,216 nursing staff members from 50 units across four hospitals in the Midwest USA and found a negative relationship between MNC mean scores and overall teamwork scores, the results concluded that teamwork accounted for about 11% of MNC.

Soliman and Eldeep<sup>21</sup> reported a significant negative relationship between teamwork and MNCs among nurses in four hospitals in Egypt. In another study by Ntezimana, Jivraj, and Dominic<sup>20</sup> conducted in Rwanda, a significant relationship between teamwork and MNCs was found among 201 nurses, indicating that increased teamwork correlated with decreased MNC activities. Additionally, a systematic review conducted by Kohanová, Solgajová, and Cubelo<sup>19</sup> in February 2023 across four scientific databases ProQuest, Scopus, PubMed, and Web of Science identified 18 studies linking teamwork and MNC. This review highlighted that teamwork ratings varied from weak to moderate but held statistical significance as predictors of MNC in acute care settings. Key issues contributing to MNC included inadequate communication, lack of trust, collaboration problems within nursing teams, and ineffective leadership. Overall, these studies in systematic review emphasize the importance of effective teamwork in reducing MNCs in healthcare environments, asserting that higher teamwork levels are associated with fewer occurrences of MNC.

Ghezjeljeh, Gharasoflo, and Haghani<sup>13</sup> conducted a cross-sectional study of 213 nurses working in the emergency department at a hospital affiliated with the University of Medical Sciences in Iran. In this study, the results concluded that there was a negative relationship between teamwork and MNC, and teamwork accounted for about 14% of MNC. A case study conducted by Yaghoubi et al<sup>22</sup> among 196 nurses from 11 care units in a military hospital in Tehran. The results of this study showed that higher levels of teamwork are linked to a lower incidence of reported MNC, and teamwork was responsible for around 12.6% of MNC. Also, Chapman et al<sup>16</sup> study concluded that there was a reverse relationship between teamwork and MNC, and the teamwork accounted for about 9% of MNC.

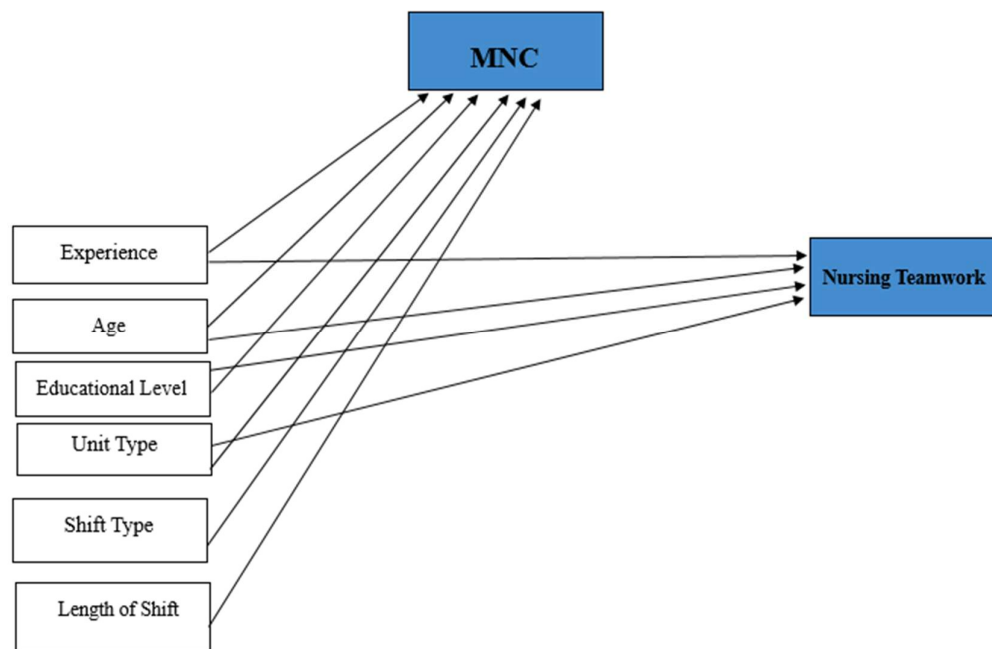
**Unraveling the Effect of Teamwork and Other Factors on Missed Nursing Care:** Understanding the importance of teamwork in nursing care environments is essential to mitigate MNC. Beiboer et al<sup>5</sup> conducted an exploratory qualitative study with 16 RNs from four hospitals in the Netherlands, revealing that effective teamwork is crucial for reducing MNC. While Zhao et al<sup>23</sup> performed a systematic mixed methods review, synthesizing findings from 17 studies that confirmed the critical impact of teamwork on MNC. Both studies concluded that teamwork plays a critical role in reducing MNC and identified various factors that contribute to effective teamwork, such as clinical leadership skills, environmental factors, and informal teaching among nurses. To enhance teamwork and reduce MNC, the studies suggested promoting effective communication, division of respon-

sibilities, cultivating team consciousness, improving knowledge and skills, reducing turnover intention, and building mutual trust and reasonable staffing.

The reviewed literature suggests that nursing staff characteristics and work-related conditions can impact or predict both MNC and teamwork. For instance, nursing features such as experience,<sup>2,16-18,21</sup> age,<sup>16,17</sup> and educational level<sup>18,21</sup> can affect or predict MNC. Work-related conditions such as the type of unit,<sup>16,22</sup> type of shift,<sup>18,21</sup> and length of shift<sup>16,21</sup>

can also have an impact on MNC. Similarly, nursing features such as experience,<sup>17</sup> educational level, and age<sup>21</sup> can affect or predict teamwork. Work-related conditions such as the type of unit<sup>18,22</sup> can also impact it.

Additionally, there are some nursing staff characteristics and work-related conditions that can affect both MNC and teamwork, such as experience,<sup>17</sup> educational level,<sup>21</sup> and type of unit.<sup>22</sup> See Figure 2.



**Figure 2: Nurse and work-related Characteristics that predict both MNC and teamwork.**

## DISCUSSION

**Missed Nursing Care Reasons:** The findings from the reviewed studies consistently highlight that labor resources are a critical factor contributing to MNC.<sup>2,14,16</sup> Marguet and Ogaz<sup>2</sup> revealing that labor resources were identified as the primary reason for MNC. Similarly, Chapman et al<sup>16</sup> research concluding the same result and reinforcing the notion that inadequate staffing levels significantly impact patient care quality. These findings are echoed in Albsoul et al<sup>14</sup> study, where the predominant reason for MNC remained labor resources. This consistency across diverse healthcare settings underscores the urgent issue of insufficient staffing, which escalates in situations of high patient acuity and low nurse-to-patient ratios. As a result, nursing professionals may prioritize certain tasks, leading to the omission of less urgent yet essential nursing responsibilities.

Moreover, the role of teamwork and communication in contributing to MNC is also significant, yet varies across studies. For instance, AL-Mnaizel and AL-Zaru<sup>15</sup> in their study identified communication and teamwork challenges as the leading causes of MNC,

with labor resources being a secondary concern. This introduces a nuanced perspective that, while labor resources are crucial, the effectiveness of communication and collaboration among nursing staff can mitigate some of the issues stemming from staffing deficiencies. The discrepancies seen across different studies regarding the impact of communication suggest that there is a pressing need for more in-depth analyses to better understand the dynamics of teamwork and the unique communication challenges that may arise in various healthcare environments.

The current literature also reveals limitations in the existing research, such as variations in sample characteristics and sizes, which point toward a need for standardized methodologies when investigating MNC. Additionally, the differing contexts including types of hospitals and regional healthcare systems imply that strategies aimed at reducing MNC should be tailored to the specific characteristics of the healthcare settings being studied.

In conclusion, while labor resources emerge as a predominant concern, the implications of these findings emphasize that structured teamwork and effective communication are essential in addressing MNC



comprehensively. Future research should focus on these areas to develop targeted interventions that can minimize MNC and ultimately improve patient outcomes. Addressing both staffing levels and the interpersonal dynamics within healthcare teams could lead to more holistic solutions for enhancing the quality of patient care.

**Missed Nursing Care Types:** The findings presented in the results section highlight a significant issue regarding MNC across various healthcare settings. Consistent identification of specific activities such as mouth care, ambulation, and patient education across different studies reinforces the notion that these are critical components of nursing responsibilities often at risk of being missed. For example, the study by Nobahar, Ameri, and Goli<sup>17</sup> found that discharge planning and patient education were the most frequently missed care activities among ICU nurses in Iran. In contrast, Marguet and Ogaz<sup>2</sup> identified mouth care, ambulation, and monitoring of intake and output as predominant omissions among nurses in the USA. This variation suggests that broader challenges within healthcare systems such as high workloads, inadequate staffing, and varying resource availability may influence how nursing staff prioritize their responsibilities, potentially leading to critical gaps in patient care.

When examining the least frequently missed activities, findings indicate that compliance rates are generally higher for essential assessments, like vital signs and patient evaluations. This aligns with results from other studies, such as those conducted by Marguet and Ogaz<sup>2</sup>, which showed that glucose monitoring and focused reassessments were less frequently missed. The adherence to these essential tasks may result from their standardization in clinical guidelines and their fundamental importance in ensuring patient safety and well-being.

The diversity of findings across studies, including those by Chapman et al<sup>16</sup> and AL-Mnaizel and AL-Zaru<sup>15</sup>, emphasizes the need for more focused investigations into the underlying causes of missed care activities. For instance, while Chapman et al<sup>16</sup> identified ambulation three times a day and turning patients every two hours as common omissions, AL-Mnaizel and AL-Zaru<sup>15</sup> highlighted that monitoring vital signs and attending interdisciplinary care conferences were less commonly missed. Such insights point to the necessity of exploring the systemic and contextual factors influencing the practice of nursing care.

Future research should also acknowledge the limitations within this body of literature. Factors such as small sample sizes, regional healthcare disparities, and potential biases in self-reported data may affect the generalizability of the findings. Incorporating feedback from nursing staff can lead to improved practices and a better understanding of the challenges they face in delivering care across diverse settings. In conclusion, identifying both frequently and less

frequently missed care activities is vital for healthcare organizations aiming to enhance patient outcomes. By addressing the factors contributing to these missed activities, organizations can create an environment that supports nursing staff in providing comprehensive and effective patient care, ultimately leading to improved healthcare results for patients. Such targeted interventions will be crucial in bridging the gaps identified across the various studies exploring MNC.

**The Relationship between the Missed Nursing Care and Teamwork:** The results reveal the vital role that teamwork plays in reducing MNC across various healthcare settings. The consistent observation that higher levels of teamwork correlate with fewer instances of MNC underscores the necessity for healthcare leaders to prioritize team-oriented strategies. However, variations in findings across studies highlight the complexity of this relationship. For instance, the study by Yaghoubi et al<sup>22</sup> demonstrated that teamwork accounted for approximately 12.6% of MNC in a military hospital, while Ghezjeljeh, Gharasoflo, and Haghani<sup>13</sup> found it responsible for around 14% of MNC within an emergency department context. In contrast, Kalisch and Lee<sup>18</sup> reported a slightly lower impact, with teamwork explaining about 11% of MNC. Chapman et al<sup>16</sup> further reported that teamwork accounted for only 9% of MNC. These variations suggest that the effectiveness of teamwork may be significantly influenced by the specific clinical environment and team dynamics in each study.

Furthermore, the limitations within these studies warrant consideration, as factors like sample size, regional variations, and different methodologies can impact the generalizability of the findings. The evidence strongly suggests that fostering teamwork could lead to notable improvements in nursing care delivery. Consequently, healthcare organizations should implement targeted strategies that encourage collaboration and communication among nursing staff to mitigate MNC. Addressing the inconsistencies observed in the results may guide future research efforts, leading to a more nuanced understanding of how to effectively decrease MNC through enhanced teamwork. By identifying consistencies, contradictions, and gaps in the existing evidence, stakeholders can better navigate the complexities of nursing care and work collaboratively towards improved patient outcomes across diverse healthcare settings.

**Unraveling the Effect of Teamwork and Other Factors on Missed Nursing Care:** The findings from the reviewed studies highlight the significant influence of teamwork on MNC, emphasizing its critical role in ensuring quality patient care. Beiboer et al<sup>5</sup> and Zhao et al<sup>23</sup> both underscore effective teamwork as a key mechanism to mitigate MNC. Beiboer et al<sup>5</sup> employed a qualitative approach, providing rich insights into the experiences of RNs in the Netherlands, while Zhao et al<sup>23</sup> conducted a systematic mixed methods review, synthesizing results from a broader range of geographic and clinical contexts. This cross-

study comparison reveals a consistent recognition of teamwork's impact on MNC across different settings, reinforcing its relevance in nursing practice worldwide.

One of the primary implications of these findings is the necessity to cultivate a culture of teamwork within nursing teams. Both studies highlight specific factors that enhance teamwork, such as clinical leadership, communication, and trust. These elements are essential not only for improving the immediate work environment but also for fostering a sense of community among nurses, which can ultimately lead to better patient outcomes. Furthermore, the suggested strategies including the division of responsibilities and the promotion of informal teaching provide actionable recommendations for healthcare administrators aiming to improve teamwork in clinical settings.

The exploration of nursing staff characteristics and work-related conditions has unveiled significant insights into their effects on MNC and teamwork across various studies. In comparing the findings across different studies and regions, it is crucial to consider the works of Marguet and Ogaz,<sup>2</sup> Chapman et al,<sup>16</sup> Nobahar et al,<sup>17</sup> Kalisch and Lee,<sup>18</sup> Soliman and Eldeeb,<sup>21</sup> and Yaghoubi et al.<sup>22</sup> These studies explore various factors such as nursing experience, educational levels, age, unit types, shift types, and shift lengths, all of which play roles in affecting both MNC and teamwork.

In summary, the consistency of findings across various studies underscores the centrality of teamwork in addressing MNC as a multifaceted issue in nursing practice. Despite the clear implications for improving teamwork, certain limitations and gaps in the existing literature need to be addressed. Further research should consider diverse healthcare systems and examine the complex interactions between nursing characteristics and work-related conditions to deepen our understanding of how to optimize teamwork and ultimately reduce MNC in various nursing contexts.

### Practical Implications

The findings from the reviewed literature suggest several actionable insights to mitigate MNC within healthcare settings.

**Enhanced Staffing Models:** Hospitals should consider implementing more robust staffing models that ensure adequate labor resources. This may involve hiring additional nursing staff or employing flexible staffing strategies to handle peak times more efficiently.

**Improving Communication Tools:** Developing and utilizing communication tools and technologies that facilitate better information exchange among healthcare team members can enhance

teamwork. This includes implementing standardized checklists, handoff protocols, and digital communication platforms to ensure seamless coordination.

**Team-building Interventions:** Regular team-building exercises and training programs focused on collaboration can significantly improve teamwork and minimize MNC. Simulation-based training and interprofessional workshops can help reinforce the importance of teamwork in patient care.

**Regular Assessments of Care Activities:** Conducting frequent audits of nursing activities and care plans can identify gaps and areas where care is routinely missed. This will allow for timely interventions and adjustments to be made in practice.

**Incorporation of Patient Education:** Integrating patient education into nursing roles should be prioritized to ensure that such fundamental activities are less likely to be overlooked.

**Monitoring and Feedback Systems:** Implementing systems to monitor missed care activities and providing feedback to nursing staff can encourage accountability and improvement. This may involve tracking trends over time and discussing results during staff meetings to highlight areas for improvement.

## CONCLUSION

The reviewed literature highlights the multifaceted nature of MNC and identifies several critical factors contributing to its prevalence. Key reasons for MNC primarily include labor resources, communication/teamwork issues, and material resources. These findings underscore the importance of adequate staffing and effective communication among healthcare teams to minimize MNC and enhance patient care.

Furthermore, the analysis reveals that specific care activities such as discharge planning, patient education, mouth care, and ambulation—are frequently overlooked, which can significantly impact patient outcomes. Recognizing the less frequently missed care activities is also vital, as even minor oversights can accumulate and adversely affect patient safety and comfort.

Lastly, the substantial evidence linking teamwork to MNC suggests that fostering a collaborative work environment among nursing staff can mitigate missed care incidents. Encouraging effective communication and teamwork is essential for improving care quality and ensuring patient needs are consistently met. Overall, addressing these issues through targeted interventions can lead to more comprehensive nursing

practices and improved patient outcomes in healthcare settings.

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