

Relationship between missed nursing care and patients' trust in nurses and satisfaction with care: A cross-sectional study

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Abstract

Missed nursing care is a global health problem that can have negative consequences for patients, nurses, and healthcare institutions. The purpose of the research is to determine the relationship of missed nursing care with patients' trust in nurses and satisfaction with care. A descriptive and cross-sectional study was conducted with 350 patients treated at the cardiology clinic of a university hospital. Data were collected using the MISSCARE Survey-Patient, the Trust in Nurses Scale (TNS), and the Newcastle Satisfaction with Nursing Scale (NSNS). There was a strong positive relationship between trust in nursing and satisfaction with care. Additionally, missed care in communication and basic care had a negative relationship with trust in nursing and satisfaction with care ($p < 0.001$). The multiple linear regression analysis revealed that the communication subscale score was the best negative predictor of trust in nurses and satisfaction with care. The results of this research indicate a deficiency in adequately addressing all nursing care activities. The failure to meet nurse-patient communication needs is the most important missed care factor that negatively affects satisfaction with care and trust in nurses.

KEYWORDS

care, communication, missed care, nursing, patient, satisfaction, trust

Key points

- As patients' level of trust in nurses increases, their care satisfaction also increases.
- As the level of missed nursing care increases, patients' trust in nursing and satisfaction with care decreases.
- Missed nursing care in communication is the best negative predictor of trust in nurses and care satisfaction.
- Missed needs in patient-nurse communication are the best negative predictors of trust in nurses and care satisfaction.

The research was presented as an oral presentation at the 3rd National Nursing Management Congress on 9–11 September 2023 (Istanbul).

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1 | INTRODUCTION

The healthcare sector is undergoing significant transformations as healthcare systems adapt to increasingly complex operational conditions. In a constantly developing and changing world, there is a growing demand for health services driven by advancements in technology, population growth, and the increase in diseases among the aging population. Increasing patient presentations result in the omission or delay of some or all the care required by patients in hospitals (Ergezen & Kol, 2021). Omitted or missed needs pose a threat to patient safety (Amrolahi-Mishavan et al., 2022). Annually, a significant proportion of patients suffer harm due to unsafe healthcare, with this rate increasing even more in low- and middle-income countries (WHO, 2021). In addition, missed care and the factors affecting it are important indicators in evaluating the quality of nursing care (Amrolahi-Mishavan et al., 2022). Research shows that the issue of missed care is mostly handled in line with the views of nurses. However, with the development of human-centered care practices, it is also crucial for patients to be actively involved in the planning and maintenance of care processes. In this context, the current study aimed to investigate the extent of the impact of missed nursing care through an assessment of the experiences of those receiving these services.

2 | BACKGROUND

Care is an essential necessity for all individuals and a universal characteristic of human existence. Care is not specific to nursing but is an intrinsic aspect of the nursing profession (Coskun Palaz & Kayacan, 2023). The term “missed nursing care” is defined as the partial or complete omission or delay of the care required by patients (Ergezen & Kol, 2021; Kalisch, 2006). Missed nursing care occurs when individuals do not receive the most appropriate care they need, when care is left incomplete, partially or completely missed, and/or not fulfilled (Ozsaban & Acaroglu, 2022).

Nurses provide care to fulfill patient requirements, although the quality of care may sometimes fall short of expectations within the context of a complex healthcare system (Cho et al., 2020). Consequently, the issue of missed nursing care has become a significant concern in hospitals, necessitating immediate action from decision-makers (Alfuqaha et al., 2023). The combination of nurses' heavy workload, inadequate staffing, and an unsupportive work atmosphere in hospitals can result in missed nursing care (Rahmah et al., 2022). Missed care has negative consequences in terms of care quality and safety by prolonging the hospital stays of patients, inadequate provision of holistic and qualified care, a greater need for emergency interventions and intensive care, and increasing care costs (Ergezen & Kol, 2021; Mandal et al., 2020). Missed nursing care has a negative impact not only on the quality of health care but also on patient outcomes, such as the individual receiving care experiencing a feeling of worthlessness, reduced patient satisfaction, and impaired trust in and communication with the nurse, healthcare team, and the institution

(Alfuqaha et al., 2023; Ozsaban & Acaroglu, 2022). Considering the values of nursing, missed nursing care has also been associated with negative nursing outcomes, including diminished job satisfaction, absenteeism, and even the intention to leave (Amrolahi-Mishavan et al., 2022; Chaboyer et al., 2021; Zeleníková et al., 2020).

Patient satisfaction is an important determinant of the outcome of nurses' ability to meet patients' individualized needs (Mobolaji-Olajide et al., 2020). A review of the literature reveals that the majority of studies have addressed missed nursing care by evaluating the perception of nurses, with little emphasis placed on the views of patients who directly experience the nursing care process (Ball et al., 2018; Chiappinotto et al., 2023; Dabney & Kalisch, 2015; İspir Demir et al., 2024; Moreno-Monsiváis et al., 2015; Kiekkas et al., 2021; Rosenberg, 2018; Yayla et al., 2023), although patient- or person-centered care is the foundation of care. Current policies highlight the importance of not only revealing the perspectives of healthcare professionals but also taking into account patient experiences and outcomes to provide unique information about healthcare efficacy (Santana et al., 2018). Further investigation is needed to explore how patients perceive and define missed care (Gustafsson et al., 2020; Janatolmakan & Khatony, 2022; Kalisch et al., 2012). In this context, the current research is considered important in terms of contributing to the gap in the literature. To this end, answers were sought to the following research questions:

1. What are patients' perceived levels of missed care, trust in nurses, and satisfaction with nursing care?
2. Is there a significant relationship between patients' perceived missed care and their trust in nurses and satisfaction with nursing care?

3 | METHODOLOGY

3.1 | Design and sample

This descriptive and cross-sectional study was conducted with patients hospitalized at the cardiology clinic of a healthcare practice and research hospital located in Balikesir, Turkey. Using the OpenEpi program, the appropriate sample size for the study was determined to be 350, with a 35% prevalence, 5% margin of error, and 95% confidence interval for the unknown universe based on the prevalence value obtained from a previous study undertaken to determine the satisfaction level of patients with nursing care (Cerit, 2016). The inclusion criteria of the study were being aged 18 years or older, being conscious, agreeing to participate in the study, and having a hospital stay of at least 3 days. The three-day length of stay criterion was determined by taking the conducted research as an example to ensure that patients had the opportunity to experience nursing care (Dabney & Kalisch, 2015; Sonmez et al., 2020). Data collection was performed with a total of 368 patients; however, 18 patients were excluded due to missing data. Consequently, the research was completed using the data from 350 patients. Reporting within the scope

of the research adhered to the requirements outlined in Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).

3.2 | Data collection tools

A descriptive information form, the MISSCARE Survey, the Trust in Nurses Scale (TNS), and the Newcastle Satisfaction with Nursing Scale (NSNS) were used as data collection tools.

3.2.1 | Descriptive information form

This form consisted of a total of nine questions (age, gender, marital status, educational status, occupation, place of residence, previous hospitalization, the presence of a chronic disease, and the presence of a companion) (Dabney & Kalisch, 2015; Sonmez et al., 2020).

3.2.2 | MISSCARE survey-patient

This survey was developed by Kalisch et al. (2014) to evaluate whether appropriate nursing care is provided based on patient reports. The validity and reliability study of the survey in Turkish was undertaken by Sonmez et al. (2020). The survey is based on a five-point Likert-type scale consisting of 13 items and three subscales (Dabney & Kalisch, 2015). The communication subscale consists of five items and is a 5-point Likert type (1: never, 5: always). The timeliness subscale consists of four items and is scored between 1 (shorter than 5 min) and 5 (longer than 30 min). The basic care subscale consists of four items and is a 5-point Likert-type scale (1: never, 5: always). At the end of the survey, nursing-sensitive quality indicators are questioned under the heading of "Adverse Events." Patients respond to these questions by selecting "yes," "no," or "not sure." In two questions on the basic care subscale and in four questions on the timeliness subscale, the sixth answer option (e.g., I never pushed the call beep, I could not get out of bed) is included, in which the patient indicates that he or she does not need care or assistance. In two questions on the basic care subscale and in four questions on the timeliness subscale, there is a sixth answer option in which the patient indicates that he/she does not need care or assistance. Items for which the sixth response option is marked are not evaluated (Sonmez et al., 2020). The items in the communication and basic care subscales are reversely scored. The total score from the 13 items indicates the missed care total score. In the original scale study, Cronbach's alpha internal consistency coefficient was found to be 0.838 (Dabney & Kalisch, 2015). In the Turkish validity and reliability study, Cronbach's alpha internal consistency coefficient was found to be 0.85 for the total scale, and it varied between 0.75 and 0.91 for the subscales (Sonmez et al., 2020). In the current study, Cronbach's alpha internal consistency coefficient was found to be 0.82 (0.85 for the communication subscale, 0.86 for the basic care subscale and 0.98 for the timeliness subscale).

3.2.3 | Trust in Nurses Scale

This scale was developed by Radwin and Cabral (2010) with hematology-oncology patients, and the Turkish validity and reliability study of the scale was undertaken by Yuçel and Ay (2013) with hematology-oncology patients. It is a five-item, one-dimensional, six-point Likert-type scale. In order for the scale to be administered to the general patient sample, a validity and reliability study was conducted by Celik Yavuz (2020), and the fifth item was removed from the scale. A score closer to 24 indicates a higher level of trust in nurses (Celik Yavuz, 2020). Celik Yavuz (2020) determined Cronbach's alpha internal consistency coefficient of the scale as 0.80. In the original study, the Cronbach alpha value of the scale was found to be 0.81 (Radwin & Cabral, 2010). In the current study, this coefficient was found to be 0.92.

3.2.4 | Newcastle Satisfaction with Nursing Scale

This is a five-point Likert-type scale consisting of 19 items, which was developed by Thomas et al. (1996) to measure patient satisfaction with nursing care. The validity and reliability of the Turkish version were confirmed by Akin and Erdogan (2006). The maximum score that can be obtained from the scale is 95, and the minimum score is 19. A higher total score indicates a higher level of patient satisfaction with nursing care (Akin & Erdogan, 2006). Cronbach's alpha internal consistency coefficient was determined as 0.96 by Akin and Erdogan (2006) and 0.98 in the current study.

3.3 | Data collection

In this study, data were collected by the researchers using the face-to-face interview method from June 15, 2022, through December 15, 2022. Prior to data collection, the patients were asked to sign an informed consent form. The appropriate time for data collection was determined by taking into account the treatment and care hours of the patients and the specific time intervals during which the patients were available for the face-to-face interview. The data collection instruments were given to the patients, who were then asked to read the questions and respond to them. The patients were also informed that the researchers would be present at the clinic to address any inquiries they might have. Data collection took approximately 5–6 min for each patient.

3.4 | Data analysis

Using IBM SPSS Statistics version 21, the data obtained from the study were analyzed at a 95% confidence interval and a significance level of $p < 0.05$. The normality test of numerical variables was undertaken with the Kolmogorov–Smirnov test. Descriptive analyses (number, percentage, mean, and standard deviation values) were used to

TABLE 1 Participants' mean scores on the administered scales.

Variable	n	Subscale	Min-max ^a	Mean	SD	Skewness	Kurtosis
TNS	350		12–24	21.97	3.08	–1.495	1.275
NSNS	350		37–95	78.92	16.13	–0.451	–1.213
MISSCARE survey-patient	350	Communication	2–5	4.18	0.72	–0.923	0.422
	347	Basic care	0–4.5	3.01	1.37	–0.202	–1.218
	93	Timeliness	1–4.50	1.63	1.10	0.219	–1.198
	93	Overall missed care	1.77–4.38	3.02	0.61	0.309	0.335

Abbreviation: SD, standard deviation.

^aminimum-maximum.

determine the descriptive characteristics of the patients and the scores they obtained from the scales. Cronbach's alpha reliability coefficient was used to determine the reliability of the scores obtained from the scales. Correlational analysis (Pearson correlation test) was employed to test the relationships between the measurements obtained from the scales. Multiple regression analysis was conducted to determine the predictive capacity of the subscales of the MISSCARE Survey for the TNS and NSNS.

3.5 | Ethical considerations

In order to conduct the research, permission was obtained from the Health Sciences Non-Interventional Research Ethics Committee of XXX University (number: 2022/63). Written consent was provided by patients who agreed to participate in the study. Written permission for the data collection tools to be used in the study was also received from the relevant authors via e-mail. The principles of the Declaration of Helsinki were followed at all stages of the research.

4 | RESULTS

The mean age of the participants was 61.27 ± 14.58 years. Of the participants, 54.6% were women, 85.4% were married, 58.0% were primary school graduates, 46.9% were housewives, and 38.0% resided in a district. In addition, 84.6% of the participants had a history of hospitalization, and 65.7% had a chronic disease.

The participants' mean TNS score was 21.97 ± 3.08 , and their mean NSNS score was 78.92 ± 16.13 . MISSCARE Survey total score average is 3.02 ± 0.61 , communication subscale average is 4.18 ± 0.72 , basic care subscale average score is 3.01 ± 1.37 , and timeliness subscale average is 1.63 ± 1.10 (Table 1).

In the correlation analysis, a comparison was made with the MISSCARE Survey communication subscale and basic care subscale. Since it was stated that the items with the sixth answer option should not be evaluated when the items with the sixth answer option were selected in the scale evaluation, the MISSCARE Survey total score ($n = 93$) and timeliness subscale ($n = 93$), which decreased the sample size, were not included in the correlation analysis (Sonmez

et al., 2020). The correlation analysis revealed a strong positive correlation between the TNS and the NSNS ($p < 0.001$). In addition, communication subscale of the MISSCARE Survey had a strong negative correlation with the TNS and NSNS ($p < 0.001$). A low negative relationship was found between basic care subscale of the MISSCARE Survey and TNS, and a moderate negative relationship was found with NSNS (Table 2).

Multiple regression analysis was performed to determine the predictive capacity of the subscales of the MISSCARE Survey for the TNS and NSNS. Communication and basic care explained 28% of the TNS scores ($F = 67.957$; $p < 0.001$), with communication emerging as the best predictor. For every one unit increase in the communication score, the TNS score decreased by 0.54 points. In addition, communication and basic care explained 40% of the NSNS scores ($F = 117.497$; $p < 0.001$). Considering the β value, communication was the best negative predictor of patient satisfaction with nursing. For every one unit increase in the communication score, the NSNS scores decreased by 0.55 points (Table 3). The relationships between the scales are shown in Figure 1.

The distribution of adverse events reported by the patients was as follows: falls, 9.4% ($n = 33$); the development of new infections, 5.4% ($n = 19$); intravenous obstruction, 24.9% ($n = 87$); and subcutaneous infiltration, 10.3% ($n = 36$). Based on patient accounts, there were no instances of pressure ulcers or medication errors.

5 | DISCUSSION

Nursing care has become even more important during the recent COVID-19 pandemic. It is crucial to evaluate the level of trust in nurses and patients' perceptions of care in order to improve the care provided and achieve successful patient outcomes (Mobolaji-Olajide et al., 2020). In the current study, it was determined that the level of trust in nurses and satisfaction with care were high, and there was a strong relationship between the two. Guo et al. (2023) demonstrated a positive relationship between nurse-patient trust and satisfaction with nursing care. Similarly, other studies have shown that patients have a high level of trust in nurses, and as the level of trust decreases, satisfaction with the care received diminishes (Aiken et al., 2018; Birkhäuser et al., 2017; Coskun Palaz & Kayacan, 2023).

TABLE 2 Correlation between the scales ($n = 347$).

	1		2		3		4	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
1. TNS	1							
2. NSNS	0.639	0.000*	1					
3. MISSCARE communication	-0.529	0.000*	-0.612	0.000*	1			
4. MISSCARE basic care	-0.142	0.000*	-0.364	0.000*	0.328	0.000*	1	

Note: *r*, Pearson correlation analysis.

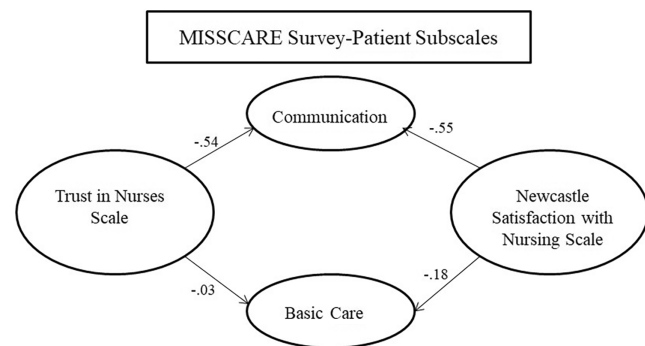
*Significant at the $p < 0.001$.

TABLE 3 Multiple linear regression model of the predictive capacity of the MISSCARE survey subscales for the TNS and NSNS scores ($n = 347$).

Variables	Model	Unstandardized coefficients		Standardized coefficients		95% CI		R^2	
		<i>B</i>	<i>SD</i>	<i>B</i>	<i>t</i>	<i>p</i>	Lower		Upper
TNS	Constant	12.594	0.823		15.307	0.000*	10.976	14.212	0.28
	Communication	-2.300	0.205	-0.54	-11.231	0.000*	-1.897	-2.703	
	Basic Care	-0.080	0.108	-0.03	-0.736	0.000*	-0.293	-0.133	
NSNS	Constant	21.169	3.916		5.406	0.000*	13.468	28.871	0.40
	Communication	-12.253	0.975	-0.55	-12.570	0.000*	-10.336	-14.170	
	Basic care	-2.142	0.515	-0.18	-4.158	0.000*	-1.126	-3.155	

Abbreviations: *B*, unstandardized regression coefficient; R^2 , variance explained; *SE*, standard error; *t*, Student's *t*-test; β , standardized regression coefficient.

*Significant at the $p < 0.001$ level;

**FIGURE 1** Determined by linear regression. Only statistically significant pathways with $p < 0.001$ are shown, along with the β .

In this research, it was observed that the level of missed care was moderate, and the highest score among the elements of missed care was obtained from communication. This finding is significant as it demonstrates that patients can detect and assess instances of missed care. Missing nursing care can have negative consequences for patients, nurses, and healthcare institutions (Janatolmakan & Khatony, 2022). Considering the repercussions of missed nursing care, it is crucial to acknowledge high missed care levels and to take proactive measures to prepare action plans aimed at reducing them. In a study conducted by Yayla et al. (2023), it was reported that the missed nursing care scores of the patients in the postoperative period were higher than the average value. In the study of İspir Demir et al.

(2024), the level of missed nursing care was determined to be below the average. In a study conducted in the USA, patients' perceptions of the healthcare system and personnel were assessed following their discharge from the hospital, and 38% of the patients reported that at least one of the nursing care activities had not been met during their hospital stay (Orique et al., 2017). Existing literature indicates that patients mostly experience problems with basic care, communication, and receiving the help they need on time (Gustafsson et al., 2020; Kalisch et al., 2014). In this current study, missed nursing care was most frequently reported by patients at the communication, basic care and timeliness subscales, respectively. It is striking that the rate of missed care, especially in communication, is very high level. In a study, patients' perceptions of missed nursing care were similar in basic care and timeliness subscales, while missed care in communication was below average (İspir Demir et al., 2024). In the study of Dabney and Kalisch (2015), missed nursing care rates were moderate in the overall scale and subscales. A study conducted with nurses reported that missed care was similarly at a moderate level, while the highest level of missed care was observed in the timely response to patient call alarms (Ntezimana et al., 2023). The results of the current research indicate deficiencies in these three areas in the provision of nursing care.

In this study, a negative relationship was found between subscale of communication and basic care and the patients' trust in nursing and satisfaction with care. In a recent study, similar to the results of the research, it was shown that inadequate communication and basic care negatively affected the level of trust in nurses and care satisfaction

(İspir Demir et al., 2024). The patients' perceptions of care are negatively affected by their lack of trust in nurses and increased instances of missed nursing care (Aiken et al., 2018). Patients feeling accepted by nurses and receiving rapid responses to their needs, positive nurse-patient rapport, and the timely provision of treatment and discharge have been stated as factors affecting patients' satisfaction with nursing care (Mobolaji-Olajide et al., 2020). Given the deficiencies in addressing missed care through patient evaluations, it appears that further research is needed to provide a clear definition of this concept.

The results of this study showed that the communication subscale score of the MISSCARE Survey was the best predictor of patients' trust in nurses and satisfaction with care. Previous studies also indicate communication is the primary area in which missed care is reported (Chaboyer et al., 2021; Moreno-Monsiváis et al., 2015). Nte-zimana et al. (2023) determined that nursing communication was the main factor affecting missed nursing care. In a study, it was found that MISSCARE communication had a partial mediating effect on the relationship between care dependency, trust in nurses, and satisfaction with nursing care (İspir Demir et al., 2024). A systematic review emphasized that effective communication plays an important role in reducing missed nursing care and contributes to meeting not only the treatment needs of patients but also their emotional well-being (Papathanasiou et al., 2024). Communication is both one of the causes of missed care and the most important tool to reduce it. Engaging in conversations with patients, even briefly, can reduce the negative consequences of a lack of rapport, such as patients' dissatisfaction and anxiety (Amalina et al., 2020). It has been suggested that communication can be an important tool to prevent missed nursing care and meet the critical requirement of nursing managers to reestablish the foundations of care (Gulcek, 2022). According to the results of the current research, missed care in communication had a significant effect on patients' trust in nurses and satisfaction with care, which is a finding that addresses a gap in the existing literature on this topic.

It has been stated that the consequences of missed care include patient mortality, adverse events, and failure of care (Mandal et al., 2020). Upon examination of the distribution of adverse events reported by patients, we observed that patients most frequently experienced intravenous obstruction. Similarly, in previous studies, the cessation of intravenous flow or intravenous leakage under the skin was the most frequently reported adverse event (Cho et al., 2017; İspir Demir et al., 2024; Kalisch et al., 2014; Yayla et al., 2023). Furthermore, the rates of patients experiencing falls, developing new infections, and experiencing subcutaneous infiltration were also not low. Similarly, Mandal et al. reported adverse events such as medication errors, infections, and falls (Mandal et al., 2020). Adverse events seen in hospitalized patients require urgent interventions and incur substantial costs for individuals, hospitals, and society. In this context, it is clear that missed care and its negative consequences need to be evaluated urgently.

5.1 | Limitations and strengths

This research revealed instances of missed care and its effects based on patient experiences and views. Patients can provide unique

information and valuable insights into the efficacy of the healthcare they receive (Kalisch et al., 2012). From this perspective, this research makes a significant contribution to the literature. However, the research has some limitations. The fact that the data in the study are based on the personal reporting of the patients and are obtained from patients who accept the research constitutes the limitations of the research, as it may cause bias. The study was conducted with patients hospitalized at the cardiology clinic of a health practice and research hospital. Due to institutional procedures and the institutional permission being obtained for a single clinic and hospital, the differences in missed care between clinics and hospitals could not be revealed. Therefore, the research results cannot be generalized. Nevertheless, although the research only focused on patient experiences at one clinic, it is considered that the results obtained will guide health policy-makers in taking the necessary measures to manage the negative consequences of missed care.

6 | CONCLUSIONS

The results of this research revealed that nursing care was not fully provided according to patients' needs, and it was omitted or delayed. Missed care was most commonly seen in the form of deficiencies in communication, basic care and timeliness. Missed care was observed to negatively affect patients' trust in nurses and their satisfaction with nursing care. Unmet communication needs were the missed care factor that had the strongest impact on patients' trust in nurses and satisfaction with care. A strong patient-nurse rapport can foster trust, contributing to a reduction in missed care and an increase in satisfaction with care.

7 | RELEVANCE FOR CLINICAL PRACTICE

This research addressed missed care, which is an important problem that negatively affects both the patient and the nurse. Patients' evaluation of missed care is important in revealing the areas of care that require improvement. There is a clear need to develop communication systems that will improve nurse-patient communication and provide timely responses to patients' needs. Nurse managers should conduct more comprehensive studies on how patient outcomes are affected by missed care, which has negative impacts on trust in nurses and satisfaction with care. Reducing instances of missed care will lead to an increase in patient safety and improved patient outcomes and experiences. Designing systems for reporting adverse events related to nursing care can be considered a data source for monitoring and taking precautions. Strategic planning by nursing service managers in healthcare institutions to reduce the occurrence of missed care can be a highly successful approach to improving patient experience and strengthening the corporate image by increasing satisfaction with nursing care.

AUTHOR CONTRIBUTIONS

Ayşe Karadaş: Conceptualization; investigation; funding acquisition; writing – original draft; methodology; validation; visualization;

writing – review and editing; project administration; formal analysis; software; data curation; supervision; resources. **Sibel Ergün:** Conceptualization; investigation; funding acquisition; writing – original draft; methodology; validation; visualization; writing – review and editing; software; formal analysis; project administration; data curation; supervision; resources. **Serap Kaynak:** Conceptualization; investigation; funding acquisition; writing – original draft; methodology; validation; project administration; data curation; supervision; resources.

ACKNOWLEDGMENTS

The authors are grateful to all the patients for their cooperation in this study.

CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

Balıkesir University Health Sciences Non-Interventional Research Ethics Committee permission was obtained to conduct the research (date: 01/06/2022, no. 2022/63). Written permission was obtained from the institution where the research would be conducted.

INFORMED CONSENT

Written permission was obtained from the relevant authors via e-mail for the data collection tools used in the research.

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How to cite this article: 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. <https://doi.org/10.1111/nhs.13149>