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# Pediatric Nurses' Perceptions of Missed Care: A Qualitative Study

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**Abstract**

**Background:** Pediatric nurses are responsible for caring for children and their families; thus, investigating missed care in the pediatric ward is important and helps to improve the quality of care. Accordingly, this study aimed to explain the perceptions of pediatric nurses about missed care.

**Methods:** This study was conducted using content analysis on 15 pediatric nurses selected by purposive sampling. The data were collected through in-depth semi-structured interviews. After obtaining informed consent, interviews were audio-recorded and transcribed verbatim. MAXQDA software (version 10) was used to facilitate coding and thematic analysis.

**Results:** Four main categories emerged from the data analysis, including missed family-centered care, unsafe care, predisposing factors, and adverse outcomes.

**Conclusion:** The findings showed that from the perspective of pediatric nurses, missed care occurs in different dimensions, including psychological support, communication, education, assessment, drug treatment, and infection control, and it can ultimately lead to mother's dissatisfaction and bring about adverse effects on the child's recovery besides harming the nurse.

**Keywords:** Nurse, Pediatric, Missed care, Content analysis, Qualitative study

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## Introduction

Missed care is a global challenge that poses a threat to the patient's safety and health (1,2) and it occurs when nursing care is not provided at all, is performed incompletely, or is delayed (1). It can result in pressure sores (3), medication errors, falls, infections (4,5), readmission, and even death (5) for patients while causing job dissatisfaction, intention to leave, and burnout among nurses. It may also increase organizational costs due to the increased length of stay, readmission, and compensation to patients for errors (6). Given the recent global rising of missed care (7), it has been reported that the prevalence of missed care was 10-27% in the USA (8), 3.6-13 cases on average in 12 European countries (9), and one in thirteen in the UK (10).

Missed care has often been studied in adult care (11-14) while pediatric diseases are often medically more complex and a relatively longer length of hospital stay is needed (13). Pediatric nurses are responsible for caring for children and their families (15). Although pediatric nurses play an important role in parents' involvement, education, and discharge (16), they might miss reporting, health education, discharge preparedness, oral hygiene, prompt drug delivery, and pain treatment (17). Common dimensions of missed care include getting the patient out of bed, moving the patient three times a day, and partnering with an interprofessional team to discuss patient care (18). Given that care providers are required to improve the quality and safety of care provided to sick children, the timely and appropriate provision of nursing care should be considered in achieving optimal outcomes. Therefore, investigating missed nursing care and its consequences is of paramount significance in the pediatric ward because it improves the quality of care among sick children (19).

As missed care is context-dependent, knowing the context and consequently the causes of the loss of care are critical for a comprehensive understanding of this phenomenon (20). Missed care and its reasons are of higher importance in developing countries due to the lack of resources (21). Although many quantitative studies have focused on the frequency and causes of missed care in Iran (22-24), no study has yet investigated the status of missed care in the pediatric ward using a qualitative

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approach that offers a deep understanding of subtle situations (25). Accordingly, the present study aimed to explain the nurses' perceptions of missed care in the pediatric acute care setting.

## Methods

This qualitative study was conducted using in-depth individual interviews. The Ethics Committee of Yazd University of Medical Sciences approved the research protocol. From April to December 2021, nurses working in the pediatric ward of Shahid Sadoughi Hospital in Yazd, Iran with at least six months of work experience and a bachelor's degree in nursing were selected using purposive sampling to participate in interviews that continued until data saturation. Initially, the participants were provided with the required information about the study objectives, interview method, audio recording, possibility of further interviews, the confidentiality of all information, and volunteer participation so that they could leave the study at any time. After obtaining verbal and written consent from the participant, the recorder was turned on and the interview started. The sample included 15 nurses working in the pediatric ward.

Data were collected through face-to-face semi-structured interviews. The interview questions included "Would you please describe a day of your work caring for a sick child?" and "How have you understood the occurrence of missed care during patient care?" Further probing questions were also asked, such as "Would you please clarify your answer with other instances" or "What do you mean when you say...?"

At the end of the interview, participants were informed that they may be asked to attend a subsequent interview if the researchers needed additional information or clarification. Each interview lasted about 45 to 90 minutes with an average of 55 minutes.

Data were analyzed concurrently with data collection utilizing Graneheim and Lundman's conventional content analysis approach (26) via MAXQDA software (version 10). After each interview, the researchers transcribed the recorded audio files verbatim, studied them several times cautiously, and contemplated together to identify any hidden meaning units from the texts. Similar concepts were merged to form codes and initial codes were examined and those with similar meanings were grouped, resulting in the creation of some subcategories. These subcategories were then compared and those with common meanings were assigned to a new category. This procedure continued until the final interview resulting in a bottom-up model starting with codes and subcategories up to the main category as the final analytic product.

Guba and Lincoln's criteria were administered to corroborate the rigor of the study by considering and confirming the findings' credibility, dependability, transferability, and confirmability (27) in the study process. To ensure credibility, the researcher used a variety of procedures for data collection, including allocating sufficient time, verifying the authenticity of the transcribed information via member check, and analyzing the data by colleagues who were experts in qualitative research. To confirm the dependability of the results, a colleague was provided with some selected interviews and asked to re-perform the coding process. To establish transferability, the findings were sent to nurses (with similar characteristics to the participants) who did not engage in the research. They were required to compare the study findings with their personal experiences.

## Results

The participants in this study included 15 pediatric nurses within the age range of 25-42 years who had completed an undergraduate degree. Following the data analysis, 328 codes were obtained, and 73 meaning units,11 subcategories, and four main categories emerged after scrutinizing the initial codes (Table 1).

### *1. Missed family-centered care*

This theme included three subthemes.

#### *Poor psychological support*

Although mothers of hospitalized children require emotional and psychological support, the majority of the nurses believed that they were encouraged to prioritize other nursing care services, such as medication, serum therapy, and reporting. Furthermore, nurses' lack of time and resources as well as the excessive occupational burden limit them to devote time to assist mothers emotionally and psychologically.

In this regard, participant 7 said, *"It happened to me a few times that I entered the room and saw a mother crying, but I did not react because other things really took priority for me, such as the medicines that I had not given or the reports that I had not written yet, and I could not provide psychological and emotional support".*

#### *Ineffective communication*

Nurses prefer to work in silence with the least amount of time spent exchanging information with mothers whereas mothers prefer to speak with nurses, learn about the child's general condition, and ask questions. Due to the nurses' reluctance, either no conversation or a brief one may occur between mothers and nurses; in other words, effective communication cannot be guaranteed.

Participant 3 stated, "*We have nurses in the ward who go to the patient's room, give medicine, and come out quickly; they do not want to talk to the mother at all and the mother does not trust the nurse when she observes this behavior*".

#### *Training left in the margins*

Educating mothers was also mentioned as a part of the

**Table 1.** The meaning units, subcategories, and main categories

| Main categories | Subcategories | Meaning units |
|---|---|---|
| Missed family-centered care | Poor psychological support | Not reducing the tension |
| | | Not empathizing |
| | | Not calming down the anger |
| | | Not reducing the anxiety |
| | Ineffective communication | Not introducing oneself |
| | | Not speaking the same language |
| | | Not spending time talking |
| | | Not greeting |
| | | Communicating briefly |
| | | Referring to the doctor |
| | | Referring to training documentation |
| | Training left in the margins | Not giving priority to education |
| | | Lack of training priority for managers |
| | | Unpreparedness for training |
| | | Not having enough knowledge |
| | | Not training |
| | | Not spending time on training |
| Unsafe care | Insufficient monitoring | Not monitoring during drug therapy |
| | | Not evaluating care provided by mothers |
| | | Not evaluating previous medications |
| | | Not assessing additional equipment |
| | | Not assessing readiness for diagnostic procedures |
| | | Not checking drug and product leakage |
| | | Not weighing on time |
| | | Not checking the patient's veins |
| | | Not assessing pain |
| | | Not assessing drug allergic reaction |
| | | Not checking the alarms |
| | | Not prescribing external medications |
| | Missed doses of medication | Not prescribing oral medications |
| | | Delayed administration |
| | | Not prescribing PRN drugs |
| | Poor infection control | Not wearing gloves |
| | | Not using alcohol cotton |
| | | Not washing hands |
| | | Non-sterile suction |
| Predisposing factors | Organizational Factors | Large number of patients |
| | | Low number of nurses |
| | | Lack of time for completion of documents |
| | | Non-standard nursing report |
| | | Lack of medicines |
| | | Non-standard shift delivery |
| | | Poor teamwork |
| | | Care without nursing process |
| | | Leaving care to mothers |
| | Individual factors | Lack of job engagement |
| | | Lack of sympathy |
| | | Inexperience |
| | | Weak work conscience |
| | | Low care sensitivity |
| | | Insufficient knowledge |
| | | Disinterest in nursing |
| | | Ethnic bias |
| | | Dissatisfaction with the employment status |

**Table 1.** Continued

| Main categories | Subcategories | Meaning units |
|---|---|---|
| Adverse outcomes | Mother's dissatisfaction | Getting stressed |
| | | Resistance to the procedure |
| | | Complaining |
| | | Getting mad |
| | Adverse effects on child's recovery | Prolonged hospitalization |
| | | Death |
| | | Physical damage |
| | | Transfer to the ICU |
| | | Getting a new disease |
| | | Getting an extra dose of medicine |
| | Harming the nurse | Appearing in court |
| | | Resignation |
| | | Stress |
| | | Anxiety |
| | | Depression |
| | | Not considering nursing as a profession |
| | | Distrust of the nurse |
| | | Feeling guilty |

missed nursing care. Nurses did not do the training for reasons such as lack of preparation during the training period at the university or training not being a priority for managers.

For instance, Participant 4 said, "*I do not teach anything to mothers because I feel I do not have enough information to teach. Furthermore, doing clinical work makes me forget about the theoretical content. Another problem is that we do not have time and teaching is not a priority of the care system*".

### *2. Unsafe care*

This theme included three subthemes.

#### *Insufficient monitoring*

According to the participants, the majority of the nurses performed monitoring neither sufficiently nor systematically during their work shift due to high workload and time constraints.

One of the participants said, "Weight is controlled for children with diarrhea and when weight control routine interferes with the child's sleep time, it is not performed; or the infusion pump is not checked because the ward is too crowded" (Participant 2).

#### *Missed doses of medication*

In the pediatric ward, pharmacotherapy is a top priority but sometimes oral pills, suppositories, sprays, and drops are not provided or are delayed owing to a paucity of pharmaceuticals in the ward.

In this regard, Participant 5 stated, "*We provide mothers with oral medications and ask them to give them to the child when they wake up or are calm but mothers sometimes forget and we also forget. So, the child does not*

*receive the medication*".

*Poor infection control*

Most nurses mentioned flaws in infection control, such as not using alcohol cotton and not wearing gloves when providing nursing care to patients, suctioning, and sitting hands to offer care.

For instance, participant 2 said, "*Sometimes I do not wear sterile gloves for suctioning or just remember it sometimes after doing patient care*".

***3. Predisposing factors***

This theme included two subthemes.

*Organizational factors*

Organizational factors related to missed care include the large number of patients, low number of nurses, lack of time for completion of documents, non-standard nursing reports, lack of medicines, non-standard shift delivery, poor teamwork, care without nursing process, and leaving care to mothers.

Participant 8 stated, "*I have 8 to 9 patients in a shift. How can I do all patient works? Obviously, care is missed. I do not take care of some things, such as measuring the patients' body temperature, answering the calls from patient rooms, or sending the patients' tests on time*".

*Individual factors*

Missed care can be caused by a variety of individual factors, such as lack of job engagement, not showing sympathy, inexperience, weak work conscience, low care sensitivity, insufficient knowledge, disinterest in nursing, ethnic bias, and dissatisfaction with the employment status.

Accordingly, Participant 6 stated, "*Many times you have time to do something but you do not because you are upset with the system; you see someone with the same work experience receiving twice the salary that you receive. Sometimes a person is not fine and is depressed and has life problems, and when you come to work you do not pay full attention to taking care of the patient*".

***4. Adverse outcomes***

This theme included three subthemes.

*Mother's dissatisfaction*

Some mothers experience stress when nurses do not provide the required care or do not provide it on time. Others have verbal conflicts with the nurse for not providing care, complain to the head nurse, and try to show their dissatisfaction by resisting.

For example, participant 3 mentioned, "*When a mother sees a nurse does not talk to the mother nor supports her while performing venipuncture and can't do it skillfully, she reacts quickly by saying 'I do not want you to do anything' and goes to another nurse*".

*Adverse effects on child's recovery*

Missed care has consequences for the sick child, including prolonged hospital stay, death, physical injury, complications, and additional drug doses.

Participant 1 recalled, "*We had a patient who took cefotaxime every day, on the last day, when he took cefotaxime, he became cyanotic and critically ill and was admitted to the pediatric intensive care unit and eventually died. I mean, the nurse should stay at the patient's bed when giving medicine to observe any possible side effects and take measures without wasting time*".

*Harming the nurse*

Missed care has negative consequences for nurses, including stress, dissatisfaction with the child's parents, and complaints against the nurse leading to his/her presence in the court as well as resignation, anxiety, and depression. Another unfavorable outcome for nurses is the release of information on the nurses' care performance by parents after the child is discharged from the hospital. In this case, nurses are evaluated and judged as untrustworthy in the healthcare team.

Participant 6 stated in this regard, "*If a nurse does not provide the needed care, when the patient is discharged, the patient's parents say that nurse was not responsible and could not be trusted. They may sue the nurse and the nurse would be harassed and stressed*".

## Discussion

This study investigated the perception of pediatric nurses about missed care. Missed care in the pediatric ward was divided into four main categories. The first category was missed family-centered care which included three subcategories: poor psychological support, ineffective communication, and training left in the margins. Considering the low level of emotional/psychological support, similar findings were reported by other scholars (28,29) indicating that nurses give the least emotional support to mothers. . Although hospitalization is stressful for the family, mothers experience higher levels of stress (30) guilt, powerlessness, and anger (31). So, nurses can provide them with the required emotional support by sympathizing and showing concern (32,33).

The second subcategory derived from the statements of the nurses was ineffective communication. Indeed, effective communication and interpersonal interactions are necessary in nursing (34,35). The nurses who take the initiative to talk can gain the mother's trust but their reluctance to talk with the patient's mother is an obstacle to building trust (36,37). According to Salmani et al., the perceptions of nurses and mothers are different in relation to communication and mothers overestimate the communication status of nurses poorly from what nurses

imagine (38). In fact, various studies conducted in Iran prove poor communication between nurses and mothers, despite the fact that communication is introduced as the core of family-centered care (39,40). Poor communication prevents the realization of family-centered care, and this type of care will be missed.

The other subcategory was training left in the margins. Pediatric nurses did not emphasize education in their care. As observed in the study by See et al., nurses were task-oriented and tended to emphasize the provision of care in acute circumstances, but the prevalent culture in the workplace was so dominant that nursing management did not aggressively encourage patient education (41). Another element that contributed to the lack of effective education was the nurse-patient ratio, which is consistent with the results of the studies by Goh et al. and Qureshi et al. Nurses dedicate their actions to care that decreases life-threatening hazards and keeps the patient from deteriorating when manpower is limited (42,43).

The second major category identified in this study was *unsafe care* which included three subcategories: insufficient monitoring, missed doses of medication, and poor infection control. Nurses acknowledged that failure to monitor patient care during each shift is common (17). In line with this finding, it was reported in a study that the frequency of missed care in a shift in the pediatric ward and assessment of patient health status was 13.5% and 12%, respectively (44). Moreover, poor monitoring of patients may pose a risk to patient safety when an alarm notification indicating a true decline in clinical condition is not addressed rapidly (45). Patient monitoring is one of the most important aspects of treatment which can help reduce the risk of adverse outcomes (46).

Concerning the missed doses of medication, different studies have reported various instances of missed medication administration such as failure to administer drugs within an hour and a half after the prescribed time (44), medication administration errors (47), and negligence in timely administration of drugs (48).

Poor infection control was the last subcategory of *unsafe care*. Infection control is an example of low-incidence missed care (7). This type of missed care is often not reported probably due to the lack of using standard methods (e.g., direct observation)and the bias inherent in self-report methods for determining missed care (49).

The next main category was *predisposing factors* which was further subdivided into organizational and individual factors consistent with the literature (50). The lack of adequate staff and high workload, leading to nurses' fatigue and shortage of time, were the two underlying factors mentioned by all participants and supported by other studies (10,51). Increasing the number of patients leads to an increase in the workload of the nurse; the workload has a significant effect on the occurrence of missed care. With increasing the number of patients per nurse, the probability of missed care increases by 70% (17).

In addition, lack of time was another important issue mentioned by participants. Time is a major issue in healthcare today. The emphasis on quality of care, safety, standardization, and efficiency has to be managed within the constraints of an increase in the number of patients being treated and a condensed length of stay (52). Nurses are often in a continuous struggle to perform an increasing number of complex tasks under time-crunched conditions (53) and making appropriate decisions within a healthcare context is also affected by time pressure (54). Indeed, time pressure may lead the nurse to perform care based on system expectations and physicians' preferences, giving priority to patients' primary and emergency care needs such as medication, treatment, intravenous fluid management, or activities that can be seen by managers. Nurses have also several obligations for assuring the completion of diagnostic procedures, arranging physiotherapy and nutrition consultants, reporting to the physician, admitting and discharging patients, and doing non-nursing administrative work (49).

Nurses prioritize care so that they can provide higher-priority care in a limited time and with limited resources (55). Furthermore, interruptions to meet visitors' demands and medicine administration might impact the nurse's capacity, resulting in missed treatments (56). Other dimensions of patient care such as educating patients and providing psycho-emotional support may also be missed (57).

The other two underlying factors were the high volume of documentation and unsystematic nursing reports. As documentation is a time-consuming task, nurses try to summarize the reports, which leads to incomplete reports and loss of care (49). Documentation destroys the nurse's autonomy in her nursing role and causes missed care in various aspects, such as bed sore assessment, fall risk assessment, compression wound care, and patient delivery (56).

Non-standard shift delivery was a further effective factor causing missed care since clinical delivery without a defined framework leads to serious consequences for patients (58) while utilizing standardized approaches can help increase patient safety (59). Poor cooperation among nurses and between doctors and nurses was identified as another predisposing factor for missed care. Communication within the care team contributes to care continuity and decreases the number of missed cares depending on the number of patients, the severity of the disease, and fluctuations in the staff number (7,44,57). In Iran, the nursing process is still followed officially and only recorded on paper because nurses are not aware of the nursing theories/practices, are not interested in their tasks, and are faced with organizational barriers (50).

Nurses also mentioned entrusting care to mothers and trusting them to deliver the needed care as another leading

cause of missed care. Although the presence of parents provides support for the child and empowers parents to be involved in treatment planning and decision-making (60), care measures should be taken by nurses (61) and nurses should constantly encourage, educate, and train parents. If care is neglected by the nurse, parents can remind them or at least check on the treatment process (62).

Another key predisposing factor for missed care was individual variables. In this regard, Bragadóttir et al. stated that more missed nursing care is associated with less nursing job satisfaction and is influenced by work experience (63). Besides, Muharraq et al. examined if age, gender, level of education, work experience, adequate staffing, working overtime, turnover intention, and level of satisfaction could predict missed nursing care among participants. It was shown that 21% of the variance in missed nursing care can be accounted for by the seven predictors collectively (64). Purabdollah et al introduced the nurses' social responsibility as an effective factor in the occurrence of missed care (65). In total, various studies in different contexts have reported various individual factors that affect the occurrence of missed care. Having professional responsibility, knowledge, and job experience affect nurses' care behaviors (66). In addition, a negative association was found between the nurses' contentment with their job and the quantity of missed care (57). The other factors influencing missed care were nursing responsibility (67), views and principles (2), and ethnic bias (68).

*Adverse outcomes* was the last category identified in this study highlighting that mothers, children, and nurses might be influenced by missed care. Indeed, missed care is associated with a decrease in patient satisfaction (69,70), psychological, occupational, and social problems for nurses (48), the occurrence of complications in sick children (5,71), a reduction in nurse's perceived adequacy (14), and mistrust of nurses (72). Trust in nursing care has profound effects on parents of hospitalized children and might lead to subsequent hospital readmissions. The creation and maintenance of trust is essential to enhance the relationship between nurses and parents of hospitalized children (36).

## Conclusion

In the pediatric ward, missed care appears in the form of missed family-centered care and unsafe care resulting from a number of organizational and individual predisposing factors. Ultimately, adverse outcomes may occur for sick children, their mothers, and nurses. Therefore, nursing managers are required to focus on the affected components of family-centered care, training programs with a focus on communication therapy, training and supporting patients and caregivers, and providing family care. To this end, providing adequate manpower, improving the culture of teamwork, teaching proper reporting methods, using special shift delivery charts, and designing nursing care programs to remove organizational barriers can be helpful. Moreover, recruiting qualified nurses to work in the pediatric ward in terms of their level of interest and commitment to professional ethics, as well as periodic evaluation of job satisfaction are of great importance to identify individual factors associated with missed care. The quality of nursing care can be improved by organizational measures, including providing pre-employment counseling to job-seeking nurses and holding professional ethics workshops.

Attempts were made to strengthen the rigor of the data in this study. Although the participants were assured of anonymity and confidentiality of their information, some might not have mentioned certain issues of missed care due to organizational considerations. Accordingly, further studies are recommended to explore the perception of mothers of hospitalized children about missed care.

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### Authors' Contribution

**Conceptualization:** Naiire Salmani, Imane Bagheri, Atena Dadgari, Mojgan Barati.
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### Competing Interests

The authors have no competing interests to declare.

### Ethical Approval

The Ethics Committee of Yazd University of Medical Sciences approved the research protocol (IR.SSU.REC.1400.108).

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