

RESEARCH ARTICLE (ORIGINAL) 

## The nursing team's perspective on missed nursing care: An analysis of the reasons

*Cuidados de enfermagem omissos na percepção da equipa: Uma análise das razões*  
*Cuidados de enfermería omitidos en la percepción del personal: Un análisis de las razones*

Magno Batista Lima<sup>1</sup> <https://orcid.org/0000-0003-2220-1172>Elaine Cristina Carvalho Moura<sup>2</sup> <https://orcid.org/0000-0002-2009-904X>Aida Maris Peres<sup>3</sup> <https://orcid.org/0000-0003-2913-2851>Lyon Richardson da Silva Nascimento<sup>4</sup> <https://orcid.org/0000-0002-1624-198X>Roxana Mesquita de Oliveira Teixeira Siqueira<sup>4</sup> <https://orcid.org/0000-0001-9549-2068>Jéssica Pereira Costa<sup>2</sup> <https://orcid.org/0000-0001-5067-6824><sup>1</sup>Universidade Federal do Piauí, Bom Jesus, PI, Brasil<sup>2</sup>Universidade Federal do Piauí, Teresina, PI, Brasil<sup>3</sup>Universidade Federal do Paraná, Curitiba, PR, Brasil<sup>4</sup>Hospital Universitário da Universidade Federal do Piauí, Teresina, PI, Brasil**Abstract****Background:** Faced with multiple requests and insufficient resources, the nursing professionals may not perform some required care.**Objectives:** Identify the missing nursing care, the reasons attributed by nursing professionals and check whether the reasons differ between professional categories.**Methodology:** A descriptive, cross-sectional study using the MISSCARE-Brazil instrument in a convenience sample of 115 participants, distributed between 48 nurses and 67 nursing technicians.**Results:** Participants had a mean age of 34.9 years, predominantly female, 88.6%. The most omitted nursing care were walking three times a day or as prescribed, 58.3%; the participation in the discussion of the interdisciplinary team about patient care, 55.6% and the offer of meals to patients who eat alone, 53.1%. The main reasons for the omission were related to the “Material Resources” and “Laboratory” domains.**Conclusion:** material and labor resources influence the frequency of missing nursing care, despite different justifications for omission of care among nurses and nursing technicians.**Keywords:** nursing; nursing care; patient safety; organizational models; missed nursing care**Resumo****Enquadramento:** Diante de múltiplas solicitações e recursos insuficientes, os profissionais de enfermagem podem não executar alguns cuidados requeridos.**Objetivos:** Identificar os cuidados de enfermagem omissos, as razões atribuídas pelos profissionais de enfermagem e verificar se as razões diferem entre as categorias profissionais.**Metodologia:** Estudo descritivo, transversal, utilizando o instrumento MISSCARE-Brasil numa amostra por conveniência de 115 participantes, distribuídos entre 48 enfermeiros e 67 técnicos em enfermagem.**Resultados:** Os participantes apresentaram média de idade de 34,9 anos, predominantemente do sexo feminino, 88,6%. Os cuidados de enfermagem mais omitidos foram a deambulação três vezes por dia ou conforme prescrito, 58,3%; a participação em discussão da equipa interdisciplinar sobre a assistência ao paciente, 55,6%; e a oferta das refeições para os pacientes que se alimentam sozinhos, 53,1%. As principais razões para omissão foram relacionadas aos domínios “Recursos Materiais” e “Laborais”.**Conclusão:** Os recursos materiais e laborais influenciam na frequência de cuidados de enfermagem omissos, apesar das justificações diferenciadas para omissão do cuidado entre enfermeiros e técnicos em enfermagem.**Palavras-chave:** enfermagem; cuidados de enfermagem; segurança do doente; modelos organizacionais; cuidados de enfermagem omissos**Resumen****Marco contextual:** Ante la multitud de solicitudes y la insuficiencia de recursos, los profesionales de enfermería pueden no realizar algunos de los cuidados necesarios.**Objetivos:** Identificar los cuidados de enfermería omitidos, las razones atribuidas por los profesionales de enfermería y verificar si las razones difieren entre las categorías profesionales.**Metodología:** Estudio descriptivo, transversal, utilizando el instrumento MISSCARE-Brasil en una muestra de conveniencia de 115 participantes, distribuidos entre 48 enfermeros y 67 técnicos de enfermería.**Resultados:** Los participantes tenían una edad media de 34,9 años, con predominio del sexo femenino, el 88,6%. Los cuidados de enfermería más omitidos fueron los paseos tres veces al día o según lo prescrito, el 58,3%; la participación en las discusiones con el equipo interdisciplinario sobre los cuidados del paciente, el 55,6%; y la provisión de comidas para los pacientes que se alimentan solos, el 53,1%. Los principales motivos para omitirlos estaban relacionados con los ámbitos “Recursos materiales” y “Mano de obra”.**Conclusión:** Los recursos materiales y laborales influyen en la frecuencia de los cuidados de enfermería omitidos, a pesar de las diferentes justificaciones para omitirlos entre los enfermeros y los técnicos de enfermería.**Palabras clave:** enfermería; atención de enfermería; seguridad del paciente; modelos organizacionales; falta de atención de enfermería**Corresponding author**

Magno Batista Lima

E-mail: [magnobatista@ufpi.edu.br](mailto:magnobatista@ufpi.edu.br)

Received: 03.04.21

Accepted: 20.09.21

**How to cite this article:** Lima, M. B., Moura, E. C., Peres, A. M., Nascimento, L. R., Siqueira, R. M., & Costa, J. P. (2022). The nursing team's perspective on missed nursing care: An analysis of the reasons. *Revista de Enfermagem Referência*, 6(1), e21057. <https://doi.org/10.12707/RV21057>

## Introduction

The evidence of errors in care delivery has increased the challenge of guaranteeing patient safety within health services. The institutions and professionals must rethink how data on adverse events are recorded, as this practice, among others, allows reviewing care delivery and management processes (Costa et al., 2018).

The roles performed by the nursing team members make them essential in guaranteeing patient safety. Studies conducted in England, the United States, and South Korea highlight the strong influence these professionals have on the quality and safety of health care delivery (Dutra et al., 2019; Aiken et al., 2021).

Worldwide, approximately 421 million hospital admissions occur annually, with nearly 42.7 million adverse events recorded (Couto et al., 2018; Jha et al., 2013). The numbers are so representative that the occurrence of adverse events due to unsafe care is probably one of the top-10 causes of death and disability worldwide (World Health Organization [WHO], 2019). A study conducted in a Teaching Hospital in the capital of Brazil found a 4.34% rate of missed medication doses in an Adult Intensive Care Unit (Castro et al., 2019).

Nursing care is delivered 24 hours a day and includes aspects of team accountability as hospital-acquired conditions by the patient, not determined by clinical factors, can cause deaths, sequelae, psychological suffering, and increased care costs. Therefore, this study aimed to identify missed nursing care actions, explore the reasons behind them from the nursing team's perspective, and determine whether these reasons differ between nurses and nursing technicians.

## Background

The occurrence of errors in care delivery poses a significant challenge for all health institutions to maintain the quality of care and patient safety. Errors in care delivery can take two forms: acts of commission, when the planned action is incorrectly performed, and acts of omission, when the right action is not performed (Costa et al., 2018; WHO, 2019).

Nursing care that is delayed or omitted in part or whole is an act of omission first reported in 2006. The most common reasons for missing care are associated with human, material, and communication resources (Kalisch et al., 2009).

The Institute of Medicine (IOM) Quality Chasm Series put forward a set of recommendations for transforming the nursing work environment, which revealed errors in these professionals' care delivery. These errors can be associated with the complexity of care and its several particularities, such as the number of actions to be performed, work hours, communication patterns, increased technology use, and inadequate nurse staffing (Kalisch et al., 2009).

Missed care is a real and frequent phenomenon and identifying it can assist in improving care practice and

minimizing the risks for adverse patient outcomes (Lima et al., 2020).

Thus, the data on missed nursing care actions reinforce the need to understand the reasons behind them. Several factors lead professionals to fail to complete the care patients need. These reasons relate to management and systematic failures, which should be analyzed and corrected for patient safety (Lima et al., 2020).

Thus, mapping missed nursing care actions and the reasons underlying their occurrence can support patient safety strategies, structural analysis, and interventions directed to managers, professionals, and health users. These allow developing variables capable of promoting the reduction of missed nursing care and accurately identifying the relationship between the reasons for missing care and the organizational model of care delivery in health services (Lima et al., 2020).

## Research Question

What are the most common missed nursing care actions? What reasons do nursing professionals give for missing care? Do the reasons for missed care differ among nurses and nursing technicians?

## Methodology

This is a descriptive and cross-sectional study conducted, from November 2016 to April 2017, in the inpatient services of the University Hospital of the Federal University of Piauí (HU-UFPI), Teresina, Piauí, Brazil.

The study participants consisted of all 199 nursing professionals of both sexes working in the inpatient sector of HU-UFPI. Working regularly in the unit during data collection was the criterion for participant selection. Professionals on medical leave, vacation, or absent for other reasons were excluded. The institution's nurse management provided the information for exclusion. Of the initial 199 nursing professionals, 168 met the inclusion criterion and were selected by convenience sampling to receive the self-administered data collection instrument. The instrument MISSCARE-BRASIL was used after being trans-culturally adapted from the MISSCARE Survey in 2012 and validated in 2015 by Brazilian researcher Lillian Dias Castilho Siqueira. The validated instrument has a general information section for socio-educational and work characterization and contains 56 items divided into two parts. Part A has 28 items on the frequency of nursing care actions, arranged in a Likert-type scale with *never*, *rarely*, *occasionally*, *frequently*, and *always*. Part B consists of 28 items regarding the reasons for missed care. These can be rated as *significant*, *moderate*, *minor*, and *not a reason for missed nursing care*.

The psychometric analysis, performed in the validation study, identified five factors/domains in part B: Communication (10 items - 5, 7, 8, 11-16, 24); Material resources (4 items - 6, 9, 10, 23); Labor resources (8 items - 1-4, 17, 19, 27, 28); Ethical dimension (3 items - 18, 20,

25); and Institutional management/ leadership style (3 items - 21, 22, 26).

After reading and signing the informed consent form, the participants were asked to fill in the instrument outside the workplace/ work hours and return it anonymously, in a closed envelope, to a specific research folder left at the workstations.

The study data were entered simultaneously into databases and a Microsoft Excel sheet to identify possible typing errors and were processed using the IBM SPSS Statistics software, version 21.0. Descriptive statistics were calculated, such as medians, means, standard deviation, minimum and maximum, for quantitative variables, and frequencies, for qualitative variables.

Quantitative variables were calculated using position measures (mean and median) and dispersion measures (standard deviation). Mann-Whitney tests were applied for comparing the personal and professional variables and the MISSCARE-BRASIL factors/domains, addressing the reasons for missed care, according to the data distribution among nurses and nursing technicians. All analyses were performed at a 5% significance level ( $p < 0.05$ ).

The study was conducted in compliance with the national and international ethical principles guiding research with human beings. It was approved by the Ethics Committee for Research with Human Beings of the Federal University of Piauí (Opinion number 1.777.929). All participants

were assured of the study's confidentiality and informed about the possibility of withdrawing from the study.

## Results

The instrument was applied to nurses and nursing technicians of the inpatient service ( $n = 168$ ), scoring a response rate of 68.4% ( $n = 115$ ), corresponding to 48 nurses and 67 nursing technicians.

Regarding socio-educational characterization, the participants had a mean age of 34.9 ( $\pm 6.2$ ) years, ranging from a minimum of 24.1 years to a maximum of 52.6 years; 61 participants (53.0%) had ages between 25 and 34 years. There was a predominance of female professionals among the study participants, with 102 women (88.6%). Sixty participants (52.1%) had a postgraduate degree, of whom three (2.6%) had a Master's degree in Nursing, the highest educational level among the participants. The mean length of working experience of the nursing professionals in their position/function per year was 8.3 ( $\pm 5.1$ ) years, ranging from 4 months to 27.6 years.

Table 1 presents the frequencies of the answers regarding care delivered, classified in five points from *never to always*. Missed care is identified by adding the frequencies of the instrument's negative classifications regarding the care action "never," "rarely," or "occasionally" performed.

**Table 1**

*Description of the frequency (%) of nursing care actions according to the perspective of the nursing team members (n = 115)*

Items from the <i>MISSCARE-Brasil</i>	Never	Rarely	Occasionally	Frequently	Always
1. Deambulação três vezes por dia ou conforme prescrito	12 (10.4)	31 (27.0)	24 (20.9)	39 (33.9)	9 (7.8)
2. Mudar o decúbito do paciente a cada duas horas	0 (0.0)	21 (18.3)	29 (25.2)	42 (36.5)	23 (20.0)
3. Alimentar o paciente ou administrar a dieta por sonda, no horário	1 (0.9)	2 (1.7)	6 (5.2)	36 (31.3)	70 (60.9)
4. Oferecer as refeições para os pacientes que se alimentam sozinhos	14 (12.2)	30 (26.1)	17 (14.8)	36 (31.3)	18 (15.7)
5. Administrar os medicamentos dentro de 30 minutos antes ou depois do horário prescrito	3 (2.6)	12 (10.4)	14 (12.2)	54 (47.0)	32 (27.8)
6. Avaliação dos sinais vitais conforme prescrito	0 (0.0)	0 (0.0)	7 (6.1)	30 (26.1)	78 (67.8)
7. Controle do balanço hídrico – entradas e saídas	1 (0.9)	23 (20.0)	6 (5.2)	41 (35.7)	44 (38.3)
8. Registo completo no prontuário do paciente, de todos os dados necessários	0 (0.0)	4 (3.5)	22 (19.1)	45 (39.1)	44 (38.3)
9. Orientações aos pacientes e familiares quanto às rotinas, procedimentos e cuidados prestados	2 (1.7)	5 (4.3)	14 (12.2)	52 (45.2)	42 (36.5)
10. Apoio emocional ao paciente e/ou família	3 (2.6)	13 (11.3)	17 (14.8)	45 (39.1)	37 (32.2)
11. Banho/higiene do paciente/medidas para prevenção de lesões de pele	0 (0.0)	3 (2.6)	11 (9.6)	38 (33.0)	63 (54.8)
12. Higiene oral	3 (2.6)	21 (18.3)	21 (18.3)	44 (38.3)	26 (22.6)
13. Higienização das suas mãos	1 (0.9)	1 (0.9)	2 (1.7)	28 (24.3)	83 (72.2)
14. Planejamento e ensino do paciente e/ou família para a alta hospitalar	6 (5.2)	17 (14.8)	12 (10.4)	39 (33.9)	41 (35.7)
15. Monitorar a glicemia capilar (glicosimetria/dextro) conforme prescrito	0 (0.0)	0 (0.0)	3 (2.6)	30 (26.1)	82 (71.3)
16. Avaliação das condições do paciente a cada turno, identificando as suas necessidades de cuidado	0 (0.0)	9 (7.8)	9 (7.8)	43 (37.4)	54 (47.0)
17. Reavaliação focada, de acordo com a condição do paciente	1 (0.9)	13 (11.3)	11 (9.6)	52 (45.2)	38 (33.0)
18. Cuidados com acesso venoso e infusão, de acordo com as normas da instituição	0 (0.0)	3 (2.6)	7 (6.1)	32 (27.8)	73 (63.5)
19. O atendimento à chamada do paciente é feito dentro de cinco minutos	4 (3.5)	21 (18.3)	28 (24.3)	37 (32.2)	25 (21.7)
20. As solicitações para administração de medicamentos prescritos S/N são atendidas em quinze minutos	3 (2.6)	16 (13.9)	23 (20.0)	41 (35.7)	32 (27.8)
21. Avaliação da efetividade dos medicamentos administrados	1 (0.9)	9 (7.8)	9 (7.8)	50 (43.5)	46 (40.0)
22. Participação em discussão da equipa interdisciplinar sobre a assistência ao paciente, se ocorrer	9 (7.8)	28 (24.3)	27 (23.5)	39 (33.9)	12 (10.4)
23. Higienizar o paciente prontamente após cada eliminação	5 (4.3)	15 (13.0)	16 (13.9)	44 (38.3)	35 (30.4)
24. Cuidados com lesões de pele/feridas	7 (6.1)	9 (7.8)	7 (6.1)	44 (38.3)	48 (41.7)
25. Aspiração de vias aéreas	16 (13.9)	13 (11.3)	19 (16.5)	25 (21.7)	42 (36.5)
26. Uso de medidas de prevenção para pacientes em risco de queda	8 (7.0)	9 (7.8)	12 (10.4)	43 (37.4)	43 (37.4)
27. Sentar o paciente fora do leito	8 (7.0)	19 (16.5)	19 (16.5)	53 (46.1)	16 (13.9)
28. Hidratar o paciente, quando adequado, oferecendo líquidos via oral ou administrando pela sonda	10 (8.7)	10 (8.7)	9 (7.8)	33 (28.7)	53 (46.1)

The frequencies of the levels of reason were obtained from the answers to the 28 items of the five-point Likert scale concerning the reasons for missing care, organized from *significant to not a reason for missed nursing care*. In Table 2, the distribution of frequencies of the levels of

reason considered the answers of *significant* or *moderate as reasons for missed care*. The answers were grouped to allow understanding the reasons for missing care bearing in mind the penta-factorial structure of the data collection instrument.

**Table 2**

*Distribution of the frequency of answers considering the reasons for missed care and the grouping of factors justifying the missed care according to the perspective of the nursing team members (n = 115)*

Factor/domains	Item n (part B)	f(%)	Mean (SD)
	Reasons for Missed Nursing Care		
1. Communication	5. A distribuição de pacientes por profissional não é equilibrada	89 (77.4)	1.8 (1.01)
	7. A passagem de plantão do turno anterior ou das unidades que encaminham pacientes é inadequada	67 (58.3)	2.2 (1.03)
	8. Outros profissionais da equipa não forneceram a assistência quando era necessário	71 (61.7)	2.2 (1.03)
	11. Os membros da equipa não se ajudam entre si	40 (34.8)	2.9 (1.10)
	12. Tensão/conflito ou problemas de comunicação com outros departamentos/setores de apoio	63 (54.8)	2.4 (1.01)
	13. Tensão/conflito ou problemas de comunicação dentro da equipa de enfermagem	45 (39.1)	2.7 (1.08)
	14. Tensão/conflito ou problemas de comunicação com a equipa médica	70 (60.9)	2.3 (1.09)
	15. O auxiliar de enfermagem não comunicou que a assistência não foi realizada	56 (48.7)	2.5 (1.14)
	16. O profissional responsável pelo cuidado estava fora da unidade/setor ou não estava disponível	45 (39.1)	2.8 (1.23)
	24. Falta de padronização para realização de procedimentos/cuidados	39 (33.9)	2.8 (1.14)
2. Material resources	6. Os medicamentos não estavam disponíveis quando necessários	91 (79.1)	1.8 (0.86)
	9. Materiais/Equipamentos não estavam disponíveis quando necessário	105 (91.3)	1.4 (0.73)
	10. Materiais/Equipamentos não funcionaram adequadamente quando necessário	104 (90.4)	1.5 (0.72)
	23. A planta física da unidade/ setor é inadequada	52 (45.2)	2.6 (1.19)
3. Labor resources	1. Número inadequado de pessoal	99 (86.1)	1.5 (0.90)
	2. Situações de urgência dos pacientes	100 (87.0)	1.6 (0.87)
	3. Aumento inesperado do volume e/ou da gravidade dos pacientes da unidade	104 (90.4)	1.5 (0.77)
	4. Número inadequado de pessoal para a assistência ou tarefas administrativas	98 (85.2)	1.5 (0.89)
	17. Grande quantidade de admissões e altas	71 (61.7)	2.2 (1.12)
	19. Número elevado de enfermeiros com pouca experiência profissional	42 (36.5)	3.0 (1.09)
	27. Número elevado de profissionais que trabalham doentes ou com problemas de saúde	66 (57.4)	2.2 (1.14)
	28. O profissional tem mais de um vínculo laboral, o que diminui o seu empenho/atenção/concentração para realizar a assistência	32 (27.8)	3.1 (0.96)
4. Ethical dimension	18. O profissional não tem postura ética e não tem compromisso e envolvimento com o trabalho e/ou com a instituição	42 (36.5)	2.8 (1.23)
	20. O profissional que não realizou o cuidado não tem receio de punição/demissão devido à estabilidade no emprego	39 (33.9)	2.9 (1.19)
	25. O profissional de enfermagem é negligente	45 (39.1)	2.8 (1.24)
5. Institutional management/ leadership style	21. Falta de preparo dos enfermeiros para liderar, supervisionar e conduzir o trabalho em equipa	48 (41.7)	2.8 (1.15)
	22. Falta de educação em serviço sobre o cuidado a ser realizado	62 (53.9)	2.4 (1.14)
	26. Falta de motivação para o trabalho	52 (45.2)	2.7 (1.19)

Note. f = Frequency; SD = Standard deviation.





From the 28 items presented in Table 2, the most significant reasons for missing care, in descending order of the frequencies presented, with records of reasons for omission by more than 50% of the nursing team members, were: “Material Resources” - Item 9 (91.3%) and item 10 (90.4%); “Labor Resources” - Item 3 (90.4%), item 2 (87.0%), item 1 (86.1%) and item 4 (85.2%); “Communication” - item 5 (77.4%); “Labor Resources” - item 17 (61.7%); “Communication” - item 8 (61.7%), item 14 (60.9%) and item 7 (58.3%); “Labor Resources” - item 27 (57.4 %); “Communication” -

item 12 (54.8%); and “Institutional management/ leadership style” - item 22 (53.9%).

When comparing the reasons for missing care, considering the factors/domains of the MISSCARE-BRASIL with the professional variables, these differed between nurses and nursing technicians (Table 3). It was not possible to identify statistical significance in any of the comparisons. Nevertheless, in the “Ethical dimension” factor/domain, nursing technicians presented higher frequencies in the reasons behind missed care.

**Table 3**

*Comparison between the MISSCARE-BRASIL factors/domains considering the reasons for missing care among the nurses and nursing technicians*

Factor/Domains	Professional category	Mean	Standard Deviation	Median	<i>p-value</i>
Communication	Technician	2.42	0.72	2.40	0.275*
	Nurse	2.54	0.74	2.60	
Material resources	Technician	1.85	0.68	1.80	0.595*
	Nurse	1.87	0.57	1.80	
Labor resources	Technician	2.04	0.54	2.00	0.551*
	Nurse	2.15	0.62	2.00	
Ethical dimension	Technician	2.92	1.07	3.15	0.495*
	Nurse	2.74	1.08	2.70	
Institutional management/ leadership style	Technician	2.61	0.90	2.70	0.963*
	Nurse	2.63	0.81	2.70	

\*Mann-Whitney test.

## Discussion

An overview of the results demonstrates their importance for patient safety and the alignment of management and educational strategies capable of guiding the actions of managers and professionals in reducing missed nursing care (Moura et al., 2020).

The characteristics of the sample studied regarding the variables sex, length of experience, and educational level were similar to the studies that used MISSCARE worldwide. Studies in 10 acute North American hospitals, for example, revealed that approximately 90% of the participants were women, 51% had a bachelor's degree or higher, and 32% had more than ten years of experience (Kalisch et al., 2011).

Several reasons were identified as potentially increasing missed care in the studied services, which are compatible with other international results. A South-Australian study identified MISSCARE variables as having direct predictive effects on the reasons for missed nursing care, namely: nursing resource allocation; health professionals' communication; workload intensity; workload predictability; nurses' satisfaction with their current job; and intention to remain working (Blackman et al., 2015). This study presented at least three of these reasons.

It is worth noting that the main reasons identified for

missing care can be minimized by the care organization and management provided. Therefore, organizing care delivery can reduce the reported missed care (Moura et al., 2020).

According to the participants, from the 28 nursing care actions, the three most missed were: ambulation three times per day or as ordered, participation in interdisciplinary team discussions on patient care, and setting up meals for patients who feed themselves. Nevertheless, a positive result of the application of the MISSCARE-BRASIL was that professionals described interventions regarding continuous clinical assessments, such as hand washing, vital signs assessment, and glucose monitoring, as being carried out “often” and “always”, as observed in other similar studies (Smith et al., 2018).

Ambulation, however, was the nursing care action professionals perceived as the most missed in most countries where care-related studies were conducted, such as in Australia, Iceland, Italy, and Lebanon (Palese et al., 2015; Kalisch, 2016).

Nursing team members often have multiple demands at work, which require them to reorganize care delivery priorities, originating variations in the individual frequencies in the performance of complete nursing care actions. Thus, although missing it can contribute to functional decline and extend the hospitalization period through complica-

tions related to immobility, nurses may not understand ambulation-related care as a priority because it is shared with other health professionals (Kalisch et al., 2011). Nevertheless, it is important to note that mobilizing hospitalized patients can bring benefits associated with reducing pain, fatigue, and risk of infection and circulatory disorders, such as vein thrombosis, apart from improving the patient's quality of life, independence, comfort, and satisfaction (Kalisch, 2016; Lima et al., 2020).

Another often missed care action mentioned was participation in interdisciplinary team discussions on patient care. The lack of multidisciplinary discussions can affect the quality of the care delivered to the patient because it can suppress the exchange of information, which influences therapeutic behaviors (Lima et al., 2020).

The omission of care regarding setting up meals for patients who feed themselves may not be considered a priority by nursing professionals because it is shared with family members and other health professionals. However, this is a collaborative care action in compliance with the hospital diet.

When facing missed care, the analysis of current organizational models of nursing care delivery can reduce the fragmentation of care and individualized work and expand accountability and technical-scientific rationale (Moura et al., 2020).

The strategies, analyses, and actions to reduce missed care are based mainly on identifying the reasons provided by nursing professionals. In this study, there was a predominance of reasons related to the factors/domains: "Material Resources", with supplies/equipment not being available when needed or not working correctly; "Labor Resources", with the unexpected rise in patient volume and/or acuity on the unit and emergencies; and "Communication", with unbalanced patient assignments.

A Brazilian study demonstrated that implementing the "Primary Nursing" care model can reduce at least 78% of missed nursing care as assessing and monitoring the organization and management of nursing care influences the delivery of high-quality care (Moura et al., 2020). Thus, developing management strategies to reduce missed care can be the answer, considering that the same issues of missed care have been identified in different organizational cultures in Brazil and internationally (Kalisch et al., 2009; Kalisch, 2016).

The results were also compatible with the data published by Kalisch et al.'s study (2011) on the type of missed nursing care actions and their reasons in ten American hospitals of different sizes and organizational models. The study demonstrated that inadequate labor resources were the most mentioned reason for missed care (93.1% in all 10 hospitals), followed by material resources (89.6%) and communication (81.7%).

When human resources are limited, nursing professionals must choose care delivery priorities and decide which care actions will be performed. This attitude can cause losses and put patient health at risk (Valles et al., 2016). The gaps in care delivery identified in this study call attention to the aspects of care management needed to achieve better outcomes (Moura et al., 2020). Ineffective

communication, for example, leads to unsafe care and may contribute to adverse outcomes. Therefore, effective communication is essential in quality care delivery (Moreira et al., 2019).

The data also highlighted the need to systematize the shift handover process, making communication effective. Nursing professionals recognize shift handover as a crucial management strategy for organizing nursing work in hospital care (Silva et al., 2017).

Nurses and nursing technicians present different practices, languages, and communication patterns, whether written or spoken. It was observed that the reasons for missing care differ between nurses and nursing technicians. The findings demonstrated that nurses reported higher frequencies of reasons for missed care situations. The differences were consistent with the findings of Bragadóttir and Kalisch's study (2018) that aimed to compare the reports of missed nursing care delivery by nurses and technicians in acute care hospitals (Bragadóttir & Kalisch, 2018).

The differences observed can be justified by the differences in professional training and service assignments. Nurses, for example, are legally responsible for managing and leading and have a broader view of the care provided by the entire team, which modifies their perspectives on the reasons for missing care. Considering that organizational change can alter perceptions within the care environment, it is urgent to adopt care organization models that clearly define the lines of responsibility regarding care delivery for better outcomes (Moura et al., 2020).

This study's methodological limitations were not re-administering the instrument over time within the institution and losing 31.6% of participants during self-administration. Although anonymity was guaranteed, many participants felt insecure given the negative dimension of the answers to the instrument and their superiors' access to the study.

## Conclusion

The reasons regarding the factors/domains "Material Resources" and "Labor Resources" were the most mentioned to explain the frequency of missed nursing care by this study's participants. Identifying missed nursing care actions and their reasons revealed similarities between different Brazilian and international health institutions. Moreover, it demonstrated the different perspectives and motivations for missed care among nurses and nursing technicians.

The administration of the instrument revealed gaps that favor and allow health care management and nursing teams to implement strategies for continuous care improvement, thus reducing the occurrence of missed care. Further studies should be conducted to verify which organizational model is more effective in minimizing missed nursing care actions.

## Acknowledgments

The authors would like to thank the University Hospital of the Federal University of Piauí, particularly the Statistical

Support and the Teaching and Research Management departments. The author(s) received no financial support for this research.

### Author contributions

Conceptualization: Lima, M. B., Moura, E. C., Peres, A. M., Nascimento, L. R., Siqueira, R. M., Costa, J. P.

Data curation: Lima, M. B., Moura, E. C., Peres, A. M., Nascimento, L. R., Siqueira, R. M.

Formal analysis: Lima, M. B., Moura, E. C., Peres, A. M., Nascimento, L. R., Siqueira, R. M.

Research: Lima, M. B.

Project management: Lima, M. B., Moura, E. C., Peres, A. M.

Supervision: Lima, M. B., Moura, E. C., Peres, A. M.

Writing - original draft preparation: Lima, M. B., Moura, E. C., Peres, A. M., Nascimento, L. R., Siqueira, R. M., Costa, J. P.

Writing - proofreading and editing: Nascimento, L. R., Siqueira, R. M., Costa, J. P.

### References

- Aiken, L. H., Sloane, D. M., Ball, J., Bruyneel, L., Rafferty, A. M., & Griffiths, P. (2021). Patient satisfaction with hospital care and nurses in England: An observational study. *BMJ open*, 8(1), e019189. <http://dx.doi.org/10.1136/bmjopen-2017-019189>
- Blackman, I., Henderson, J., Willis, E., Hamilton, P., Toffoli, L., Ver-rall, C., Abery, E., & Harvey, C. (2015). Fatores que influenciam porque os cuidados de enfermagem são perdidos. *Journal of Clinical Nurses*, 24(1-2), 47-56. <https://doi.org/10.1111/jocn.12688>
- Bragadóttir, H., & Kalisch, B. J. (2018). Comparison of reports of missed nursing care: Registered nurses vs. practical nurses in hospitals. *Scandinavian Journal of Caring Sciences*, 32(3), 1227-1236. <https://doi.org/10.1111/scs.12570>
- Castro, A. F., Oliveira, J. P., & Rodrigues, M. C. (2019). Anti-infective medication administration errors by dose omission. *Acta Paulista de Enfermagem*, 32(6), 667-673. <http://dx.doi.org/10.1590/1982-0194201900092>
- Costa, D. B., Ramos, D., Gabriel, C. S., & Bernardes, A. (2018). Patient safety culture: Evaluation by nursing professionals. *Texto & Contexto-Enfermagem*, 27(3). <https://doi.org/10.1590/0104-070720180002670016>
- Couto, R. C., Pedrosa, T. M., Roberto, B. A., Daibert, P. B., Abreu, A. C., & Leão, M. L. (2018). *II anuário da segurança assistencial hospitalar no Brasil*. <https://repositorio.observatoriodocuidado.org/handle/handle/1646>
- Dutra, C. K., Salles, B. G., & Guirardello, E. D. (2019). Situations and reasons for missed nursing care in medical and surgical clinic units. *Revista da Escola de Enfermagem da USP*, 53, e03470. <http://dx.doi.org/10.1590/S1980-220X2017050203470>
- Jha, A. K., Larizgoitia, I., Audera-Lopez, C., Prasopa-Plaizier, N., Waters, H., & Bates, D. W. (2013). The global burden of unsafe medical care: Analytic modelling of observational studies. *BMJ Quality & Safety*, 22(10), 809-815. <http://dx.doi.org/10.1136/bmjqs2012-001748>
- Kalisch, B. (2016). Errors of omission: How missed nursing care imperils patients. *Journal of Nursing Regulation*, 7(3), 64. [https://doi.org/10.1016/S2155-8256\(16\)32323-7](https://doi.org/10.1016/S2155-8256(16)32323-7)
- Kalisch, B. J., Landstrom, G. L., & Hinshaw, A. S. (2009). Missed nursing care: A concept analysis. *Journal of Advanced Nursing*, 65(7), 1509-1517. <https://doi.org/10.1111/j.1365-2648.2009.05027.x>
- Kalisch, B. J., Tschannen, D., Lee, H., & Friese, C. R. (2011). Hospital variation in missed nursing care. *American Journal of Medical Quality*, 26(4), 291-299. <https://doi.org/10.1177/1062860610395929>
- Lima, J. C., Silva, A. E., & Caliri, M. H. (2020). Omission of nursing care in hospitalization units. *Revista Latino-Americana de Enfermagem*, 28, e3233. <http://dx.doi.org/10.1590/1518-8345.3138.3233>
- Moreira, F. T., Callou, R. C., Albuquerque, G. A., & Oliveira, R. M. (2019). Effective communication strategies for managing disruptive behaviors and promoting patient safety. *Revista Gaúcha de Enfermagem*, 40(spe), e20180308. <https://doi.org/10.1590/1983-1447.2019.20180308>
- Moura, E. C., Lima, M. B., Peres, A. M., Lopez, V., Batista, M. E., & Braga, F. D. (2020). Relationship between the implementation of primary nursing model and the reduction of missed nursing care. *Journal of Nursing Management*, 28(8), 2103-2112. <https://doi.org/10.1111/jonm.12846>
- World Health Organization. (2019). *Patient safety*. <https://www.who.int/news-room/fact-sheets/detail/patient-safety>
- Palese, A., Ambrosi, E., Prosperi, L., Guarnier, A., Barelli, P., Zambiasi, P., Allegrini, E., Bazoli, L., Casson, P., Marin, M., Padovan, M., Picogna, M., Taddia, P., Salmaso, D., Chiari, P., Marognolli, O., Canzan, F., Gonella, S., & Saiani, L. (2015). Missed nursing care and predicting factors in the Italian medical care setting. *Internal and Emergency Medicine*, 10(6), 693-702. <https://doi.org/10.1007/s11739-015-1232-6>
- Silva, M. R., Rodovalho, A. P., Alves, L. R., Camelo, S. H., Laus, A. M., & Chaves, L. D. (2017). Passagem de plantão em enfermagem hospitalar: Uma revisão integrativa. *CuidArte, Enfermagem*, 11(1), 122-130. <https://pesquisa.bvsalud.org/portal/resource/pt/bde-31634?lang=fr>
- Smith, J. G., Morin, K. H., Wallace, L. E., & Lake, E. T. (2018). Association of the nurse work environment, collective efficacy, and missed care. *Western Journal of Nursing Research*, 40(6), 779-798. <https://doi.org/10.1177/0193945917734159>
- Valles, J. H., Monsiváis, M. G., Guzmán, M., Interrial, G., & Arreola, L. V. (2016). Nursing care missed in patients at risk of or having pressure ulcers. *Revista Latino-Americana de Enfermagem*, 24, e2817. <https://doi.org/10.1590/1518-8345.1462.2817>

