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# Situations and reasons for missed nursing care in medical and surgical clinic units

Situações e razões para a omissão do cuidado de enfermagem em unidades de clínica médica e cirúrgica

Situaciones y razones para la omisión del cuidado de enfermería en unidades de clínica médica y quirúrgica

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#### **ABSTRACT**

Objective: To evaluate the frequency and reasons for missed nursing care and to verify whether the reasons for omission differ between professional categories. Method: A quantitative and cross-sectional study carried out in the adult hospitalization units of a public hospital of a teaching institution. Data collection was performed from February to April 2017, through a personal and professional characterization form and the MISSCARE-BRASIL instrument. Results: Fifty-eight (58) nursing professionals responsible for direct patient care participated in the study, of which 74.1% reported at least one missed nursing care activity during the work shift. The main reasons attributed to missed care situations were an inadequate amount of professionals, urgent situations with the patients during the work shift, and the non-availability of medicine, materials or equipment when necessary. Conclusion: Most care was "always" or "often" performed, and the reasons given for missed care are related to work resources, materials, and management style. Nurses differ from the technicians as to the reasons for not performing care.

#### DESCRIPTORS

Nursing Care; Patiente Outcome Assessment; Patient Safety; Health Evaluation.

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## **INTRODUCTION**

Patient safety is reducing the risk of unnecessary damage associated with healthcare to the minimum acceptable level<sup>(1)</sup>. The great challenge in healthcare institutions is to offer safe care in facing the difficulties of maintaining a balance between the demands of qualified human resources, technological resources and material resources.

The health team, especially the nursing team, play a key role in providing safe patient care. The nursing practice environment has been identified as an important predictor of care quality and outcomes for the patient. Studies carried out in England, the United States and South Korea highlight the strong influence of this environment on the quality and safety of health care, since the disproportion in the nurse/patient relationship with consequent work overload tends to increase missed care situations<sup>(2-3)</sup>, which may also be associated with the occurrence of adverse events such as falls, pressure injuries, infections<sup>(3-4)</sup>, and patient dissatisfaction with the received care<sup>(2,4-5)</sup>. The term "missed nursing care" refers to nursing care that is no longer completed or was only partly performed or late<sup>(6)</sup>.

Nursing care comprise the activities developed by the nursing team, such as medication administration, patient feeding, changes to patient bed positioning, body hygiene, oral hygiene, vital sign assessment, among others. The care related to guidance and education of the patient and family, systematization of nursing care, interdisciplinary visit, and specifically for the nurse, management of the nursing team and the sector as a whole regarding the provision of materials, equipment, and evaluating the care complexity are also noteworthy, among others.

Missed care is characterized when these essential actions for care are not performed. Therefore, the team's commitment to providing quality nursing care according to the specific needs of each patient in a timely manner becomes critical. The positive perception of the nursing team in relation to their work environment is associated with a lower frequency of missed care<sup>(7)</sup>.

Work environments with a lack of material and technological resources, insufficiently qualified professionals, and communication problems between teams are associated with missed nursing care<sup>(3,8-9)</sup>. Among the main situations are care with ambulation, patient education, oral hygiene care, pressure injury prevention and emotional support<sup>(3,9-11)</sup>. The workload and the experience time of the professionals constitute important variables which influence the missed care situations, since long working days can result in a reduced concentration capacity to perform activities<sup>(3)</sup>.

Studies conducted in South Korea and Mexico<sup>(3,9,11)</sup> which assessed the frequency of missed nursing care sought to understand the reasons why such care actions were not performed. Considering the low occurrence of studies with this focus in Brazil, the impact of missed care on the results of patient care and a health system which differs from other countries, the present study aimed to evaluate the frequency and reasons for missed nursing care, and to verify whether the reasons for omission differ between professional categories.

# **METHOD**

#### **STUDY DESIGN**

This is a quantitative and cross-sectional study.

## **S**CENARIO

The study was carried out in the adult hospitalization units for clinical and surgical treatment of a teaching hospital in the interior of the state of São Paulo, at the tertiary care level, funded by the Unified Health System.

## **SELECTION CRITERIA**

The sample was established by convenience, and nurses and nursing technicians who worked in direct care to patients and had experience time in the unit over 3 months were considered. Professionals who exercised exclusively managerial activities or were absent were excluded from the study, whether due to vacation, retirement or health leave.

## **SAMPLE DEFINITION**

For the sample calculation, the methodology for estimating a sample size for a proportion of p equal to 0.50 was considered, whose value represents the maximum variability of the binomial distribution, thus generating an estimate with the largest possible sample size.

The nursing team which met the inclusion criteria was composed of nurses and nursing technicians from a total of 430 professionals. A sample error of 5% and a significance level of 5% was assumed. With this, the obtained sample size was 203 professionals. They agreed to participate in the study, with 72 instruments being returned corresponding to a 47.3% response rate. After excluding 14 instruments due to incomplete data, the sample corresponded to 58 professionals (33 nursing technicians and 25 nurses).

## **DATA COLLECTION**

Data collection was performed using the personal and professional characterization form and the MISSCARE-BRASIL instrument<sup>(12)</sup>. The characterization form included the following information: age, gender, marital status, professional category and time since graduation, length of experience in the unit and institution, the presence of another employment relationship, and the following questions: "How do you evaluate the quality of care (from "very good" to "very poor") and "How do you feel about your current job?" (responses from "very dissatisfied" to "very satisfied").

MISSCARE-BRASIL is a self-reported instrument developed by Kalisch and Williams (2009)<sup>(13)</sup> and validated for the Brazilian culture by Siqueira et al. (2017)<sup>(12)</sup>. The purpose of this instrument is to evaluate missed care situations from the perception of the nursing team, and the reasons attributed by the professionals for not performing these care actions<sup>(12)</sup>. It consists of 56 items divided into two parts: part A contains 28 items, which points to nursing care which is not performed, in a Likert scale ranging from 1 (never performed) to 5 (it is always performed); Part B has 28

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items, which include the reasons why nursing care was not performed, assessed on a Likert scale ranging from 1 (significant reason) to 4 points (not a reason). The items in part B are inserted into five domains: labor resources, material resources, communication, ethical dimension and institutional management/leadership style. High scores indicate a large extent of unperformed care and a strong reason for not performing care. The response codes should be reversed for analyzing the instrument, being: Part A: 1=5, 2=4, 3=3, 4=2, 5=1; and Part B: 1=4, 2=3, 3=2, 4=1.

The internal consistency values of the five MISSCARE-BRASIL domains of Part B, which corresponded to the validation study of this instrument, resulted in a Cronbach's alpha greater than 0.70<sup>(12)</sup>.

Data collection was performed by one of the researchers from February to April 2017, at a previously agreed time with nursing professionals. The subjects who met the inclusion criteria were individually approached at their jobs, and received information about the research objective. Those who agreed to participate were asked to sign the Informed Consent Form.

# **DATA ANALYSIS AND PROCESSING**

Once collected, the data were inserted into an Excel® worksheet and analyzed using SAS statistical software, version 9.4®. Descriptive statistics were used to characterize the sample and to present the frequency of missed care. Thus, frequencies and percentages were calculated to describe the categorical variables, and the responses were grouped as "never performed" and "rarely performed", as well as the responses "frequently performed" and "always performed" for analyzing the part A response frequency of the instrument. Quantitative variables were calculated by position measurements (mean and median) and dispersion measurements (standard deviation, minimum and maximum). The Mann-Whitney or unpaired Student's t-tests were applied according to the data distribution for crosses involving the

personal and professional variables and the MISSCARE-BRASIL domains, which address the reasons for not performing care. The Spearman Correlation Coefficient was calculated in order to evaluate the relationship between the MISSCARE-BRASIL domains and the variables: age, time since graduation, unit experience time and experience time in the institution. Finally, the Shapiro-Wilk test was applied to evaluate the data distribution in the performed analyzes.

In the present study, the internal consistency analysis of the instrument domains of Part B was done using the Alpha Cronbach coefficient, whose values were 0.67 for labor resources, 0.49 for material resources, 0.84 for communication, 0.77 for ethical dimension and 0.64 for institutional management/leadership style. A significance level was considered as p-value values ≤ 0.05 for the analyzes.

## **ETHICAL ASPECTS**

The study complied with the recommendations of Resolution 466/12 of the National Health Council and was approved by the Research Ethics Committee of the Faculty of Medical Sciences of the Universidade Estadual de Campinas, under Opinion no. 1.897.021/2017.

# **RESULTS**

Fifty-eight (58) nursing professionals participated in the study, constituting 56.9% (n = 33) nursing technicians and 43.1% (n = 25) nurses. The majority were female (79.3%), married (60.3%), with a mean age of 38.8 years; the experience time in the unit was 7.6 years, and 26.9% reported having another employment relationship. The majority (67.5%) stated that the care quality offered to patients is good and they were satisfied with their work (78.1%).

Regarding the non-care situations and frequency, 74.1% of the professionals reported that at least one nursing care action was indicated as "never" or "rarely" performed during their work shift (Table 1).

**Table 1** – Description frequency (%) of nursing care performance according to the perception of the nursing team members – Campinas, SP, Brazil, 2017.

Frequency of nursing care performance – MISSCARE-BRASIL	Never/Rarely performed	Occasionally not performed	Frequently/Always performed
Ambulation three times a day or as prescribed	31.03	13.79	55.1 <i>7</i>
Turning patient every 2 hours	24.14	18.97	56.89
Feed the patient or administer the diet by tube on time	6.90	12.07	81.03
Offer meals to patients who can feed themselves	13.80	8.62	77.58
Medications administered within 30 minutes before or after scheduled time	12.07	27.59	60.35
Assessment of vital signs as prescribed	0	10.34	89.65
Water balance control: intake/output	8.62	6.90	84.48
Full documentation of all necessary data in the patient's record	6.89	8.62	84.48
Patient and family guidelines for routines, procedures and care	5.17	10.34	84.48
Emotional support to the patient and/or family	25.86	15.52	58.63
Bathing/hygiene of the patient/measures for prevention of skin lesions	1.72	6.90	91.38

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Frequency of nursing care performance – MISSCARE-BRASIL	Never/Rarely performed	Occasionally not performed	Frequently/Always performed
Oral hygiene	5.17	18.97	78.86
Hand hygiene	0	1.72	98.28
Planning and teaching the patient and/or family for discharge	15.52	8.62	75.87
Monitor capillary glycemia (glycosimetry/dextro) as prescribed	0	3.45	96.55
Assessment of the patient's condition on each shift, identifying their care needs	6.90	10.34	82.76
Focused reassessments according to patient condition	5.17	17.24	77.58
Care of venous access and infusion in accordance with the institution rules	1.72	13.79	84.49
A call from the patient is answered within 5 minutes	5.17	12.07	82.76
Requests for the administration of prescribed drugs are met within 15 minutes	3.45	13.79	82.76
Assess effectiveness of medication	8.62	8.62	82.76
Participation in interdisciplinary team discussion on patient care, if it happens	44.83	17.24	37.93
Sanitize the patient promptly after each elimination	8.62	12.07	79.31
Skin/wound care	0	6.90	93.11
Airway aspiration	0	5.17	94.83
Use of prevention measures for patients at risk of falls	0	12.07	87.93
Sitting the patient off the bed	18.96	18.97	62.07
Moisturize the patient when appropriate, offering oral fluids or administering by tube	0	13.79	86.21

The MISSCARE-BRASIL domains regarding the nursing team's perception of the reasons for missed care are presented in Table 2.

When comparing the reasons for missed care considering the MISSCARE-BRASIL domains with the personal and professional variables, it was verified that they differ in professional training (Table 3).

**Table 2** – Description of the mean, standard deviation, minimum, median and maximum of the MISSCARE-BRASIL domains as to the reasons for missed care – Campinas, SP, Brazil, 2017.

Domains	Mean	Standard deviation	Minimum	Median	Maximum
Labor resources	2.84	0.52	1.63	2.88	4.00
Material resources	2.81	0.58	1.75	2.75	4.00
Communication	2.40	0.65	1.30	2.30	3.90
Ethical dimension	2.34	0.98	1.00	2.33	4.00
Institutional management/leadership style	2.48	0.89	1.00	2.67	4.00

**Table 3** – Comparison between the MISSCARE-BRASIL domains as to the reasons for missed care between professional category – Campinas, SP, Brazil, 2017.

Domains	Professional category	Mean	Standard deviation	Median	p-value
Labor resources	Nursing Technician Nurse	2.69 3.04	0.48 0.52	2.75 3.13	0.0100*
Material resources	Nursing Technician Nurse	2.69 2.97	0.59 0.55	2.50 3.00	0.0379**
Communication	Nursing Technician Nurse	2.27 2.57	0.60 0.68	2.20 2.70	0.0821*
Ethical dimension	Nursing Technician Nurse	2.02 2.77	0.85 0.99	2.00 3.33	0.0031**
Institutional management/leadership style	Nursing Technician Nurse	2.16 2.89	0.80 0.84	2.00 3.00	0.0013*

<sup>\*</sup>Unpaired Student's t-test; \*\*Mann-Whitney test

No significant correlations were found for the relations between the MISSCARE-BRASIL domains with the variables age, time since graduation, unit experience time and institution.

# **DISCUSSION**

The results of the study showed that nursing care may not be performed in its entirety, since 74.1% of professionals

reported at least one missed nursing activity during their work shift. This result is similar to that of another study, which presented a percentage of 73.4%<sup>(14)</sup>.

Of the 28 activities investigated, 75% of them were attributed by professionals as "frequently" and "always" performed. These activities are related to basic care such as bathing/hygiene (91.38%), skin/wound care (93.11%), use of prevention measures for patients at risk of falls (87.93%); and patient assessment and life support care, such as hand hygiene (98.28%), capillary glycemia control (96.55%), vital signs assessment (89.65%), airway aspiration (94.83%), venous access/infusions care (84.49%) and water balance control (84.48%).

These results differ from studies carried out in Mexico, where the frequency of missed care was related to basic care interventions, especially oral hygiene, walking and feeding assistance <sup>(9,11)</sup>. The interventions related to continuous clinical evaluations such as evaluation of vital signs, capillary glycemia and water balance were performed more frequently<sup>(7,9,11,14)</sup>, similar to the findings of the present study.

Hand hygiene may be highlighted, which was pointed out by the team as the most "frequently/always" care performed and which is directly related to preventing healthcare-associated infection. Moreover, the use of preventive measures for patients at risk of falls should be valued, since this is one of the patient's safety goals, and was considered as an "often/always" care performed in the present study.

Among the "never" and "rarely" care actions, the following stand out: participation of the interdisciplinary team in patient care (44.83%), assistance in walking (31.03%), emotional support to the patient and/or family (25.83%), change of position every 2 hours (24.14%), and planning and teaching of the patient and/or family at hospital discharge (15.52%). Missed care related to ambulation and change of position may lead to complications related to patients' immobility, and non-participation in interdisciplinary discussion may hinder communication between the teams, since discussion with colleagues enriches the care plan and setting goals for treatment.

The frequency of missed care related to activities such as patient education and emotional support to the patient and/or family is similar to the data found in international studies<sup>(9,11,15)</sup>. Likewise, the frequency of missed care in medication administration within 30 minutes before or after the prescribed time (39.66%) and in the participation of the interdisciplinary team discussion (44.83%) was similar to a study carried out in Mexico<sup>(9)</sup>.

The main reasons attributed to missed care were problems related to the labor resource domains, such as: inadequate staff numbers, patient emergency situations and unexpected increase in volume or severity of patients, and material resources characterized by drugs, materials and equipment not being available or unsuitable for use. It is important to emphasize that the human resources factor is paramount and decisive for the care provided to patients. This was highlighted in various studies in which the nursing staff considered human resources as the main factor and

having a strong influence on missed care, including insufficient staffing and unexpected increase in patient volume and/or workload<sup>(9,11,16)</sup>. Also, material resources were described in these studies as the second<sup>(9)</sup> and third causes for missed care<sup>(11)</sup>.

Working in environments with structured work processes and with an adequate number of professionals can contribute to reducing neglected care and favor care planning, patient education and emotional support, which are not always valued in the care process.

The institutional management/leadership domain was assigned as the third reason related to missed care, including items related to the nurse's preparation to lead, supervise and conduct teamwork, as well as continuous education actions for the nursing staff.

The clinical experience of the professionals was a factor that negatively impacted missed care, since the professional qualification consisted of one of the factors in identifying the different elements of the missed care. Less experienced professionals performed greater incidents of missed care<sup>(15)</sup>.

Nurses differ in relation to nursing technicians as to the reasons for the missed care since they attributed more reasons to explain the missed care, specifically in the areas of labor resources, material resources, ethical dimension, and institutional management/leadership. It should be noted that these results were similar to those of a study conducted in Iceland, where higher education professionals reported higher frequency of care neglect and attributed labor and material resources as the main reasons for the omission<sup>(8)</sup>. Another aspect in common with the present study was that the communication domain also did not differ in the perception between professional categories<sup>(8)</sup>.

This finding is justified by the managerial competence of the nurse professional, who must have a broad vision of the work sector, as well as leadership and management skills of the sector and the team, as well as to provide direct care to the patient. The nurses at the institution of this study are responsible for an average of 18 patients each, and works with a team of three to four nursing technicians, which makes it possible to follow the patient care needs more closely.

The results of this study should be considered by nurses and nursing managers to monitor the care provided by the team and to improve the care quality. The low response rate by the subjects stands out as a limitation of this study, which can be justified by the lack of familiarity with this subject in the professional practice environment and requires a safety culture that enables moments for reflection and discussion to qualify care.

# **CONCLUSION**

The present study allowed us to conclude that most professionals consider that nursing care was "always" or "frequently" performed. The main reasons attributed to missed care are related to labor resources, especially the inadequate number of professionals and the emergency situations that occur with the patients during the work shift, as well as material resources in situations where drugs, materials or equipment were not available when necessary.

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It was also verified that the reasons for the nurses not performing care differ from the reasons of the technicians in most domains, except for the communication domain. Missed care for nurses is related to labor resources, materials, ethical aspects and institutional leadership style, and such reasons exert a greater influence on the missed care compared to the responses of the nursing technicians.

## **RESUMO**

Objetivo: Avaliar a frequência e as razões da omissão do cuidado de enfermagem e verificar se as razões de omissão diferem entre categorias profissionais. Método: Estudo quantitativo e transversal realizado nas unidades de internação adulto de hospital público de uma instituição de ensino. A coleta de dados foi realizada no período de fevereiro a abril de 2017, por meio de uma ficha de caracterização pessoal e profissional e pelo instrumento MISSCARE-BRASIL. Resultados: Participaram do estudo 58 profissionais de enfermagem responsáveis pela assistência direta ao paciente, dos quais 74,1% relataram pelo menos uma atividade de enfermagem omitida no turno de trabalho. As principais razões atribuídas à omissão do cuidado foram o dimensionamento inadequado dos profissionais, as situações de urgência com os pacientes durante o turno de trabalho e a não disponibilidade de medicamentos, materiais ou equipamentos quando necessário. Conclusão: A maioria dos cuidados foi "sempre" ou "frequentemente" realizada, e as razões atribuídas para a omissão do cuidado estão relacionadas aos recursos laborais, materiais e estilo de gestão. Os enfermeiros diferem dos técnicos quanto às razões para a não realização dos cuidados.

#### **DESCRITORES**

Cuidados de Enfermagem; Avaliação de Resultados da Assistência ao Paciente; Segurança do Paciente; Avaliação em Saúde.

#### **RESUMEN**

Objetivo: Evaluar la frecuencia y las razones de la omisión del cuidado de enfermería y verificar si las razones de omisión difieren entre categorías profesionales. Método: Estudio cuantitativo y transversal llevado a cabo en las unidades de hospitalización de adultos de un hospital público de un centro de enseñanza. La recolección de datos fue realizada en el período de febrero a abril de 2017, mediante una ficha de caracterización personal y profesional y por el instrumento MISSCARE-BRASIL. Resultados: Participaron en el estudio 58 profesionales de enfermería responsables de la asistencia directa al paciente, de los que el 74,1% relataron por lo menos una actividad de enfermería omitida en el turno de trabajo. Las principales razones atribuidas a la omisión del cuidado fueron el dimensionamiento inadecuado de los profesionales, las situaciones de urgencias con los pacientes durante el turno de trabajo y la no disponibilidad de fármacos, materiales o equipos cuando necesario. Conclusión: La mayoría de los cuidados fue "siempre" o "a menudo" realizada, y las razones atribuidas para la omisión del cuidado están relacionadas con los recursos laborales, materiales y estilo de gestión. Los enfermeros difieren de los técnicos en cuanto a las razones para la no realización de los cuidados.

## **DESCRIPTORES**

Atención de Enfermería; Evaluación del Resultado de la Atención al Paciente; Seguridad del Paciente; Evaluación em Salud.

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