

ASSOCIATION BETWEEN PERCEIVED QUALITY OF NURSING CARE AND MISSED NURSING CARE IN PEDIATRIC UNITS: PRELIMINARY RESULTS
VZŤAH MEDZI VNÍMANOU KVALITOU OŠETROVATELSKEJ STAROSTLIVOSTI A CHÝBAJÚCOU OŠETROVATELSKOU STAROSTLIVOSŤOU NA PEDIATRICKÝCH ODDELENIACH: PRELIMINÁRNE VÝSLEDKY

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ABSTRACT

Introduction: The quality of pediatric nursing care is a key indicator of healthcare safety and effectiveness, while the occurrence of missed care can significantly affect pediatric patient outcomes and satisfaction.

Objective: To examine the association between perceived quality of nursing care and the prevalence of missed nursing care in pediatric units.

Methods: A cross-sectional design was employed in selected children teaching hospital from April to September 2024. The sample consisted of 100 nurses from six clinical wards. Data were collected using the EPAECQC (Scale of Perception of Nursing Activities that Contribute to Nursing Care Quality) and the MISSCARE Survey – Pediatric instruments. Data analysis in SPSS 25.0 included descriptive and inferential statistics.

Results: Results revealed negative correlations between missed care and perceived care quality in health promotion ($r = -0.223$), well-being and self-care ($r = -0.233$), and functional readaptation ($r = -0.270$). The most frequently missed activities included participation in bedside rounds, patient mobilization, and oral care, while the most significant reasons were malfunctioning or lack of medical equipment.

Conclusion: The findings indicate that missed nursing care significantly reduces the quality of pediatric care, emphasizing the need for sufficient staffing, material resources, and effective communication within healthcare teams.

Key words: Hospital care. Missed nursing Care. Nurses. Pediatric nursing. Quality of care

ABSTRAKT

Úvod: Kvalita ošetrovateľskej starostlivosti v pediatrii predstavuje kľúčový ukazovateľ bezpečnosti a efektivity zdravotnej starostlivosti, pričom výskyt chýbajúcej starostlivosti môže výrazne ovplyvniť výsledky a spokojnosť pediatrických pacientov.

Ciel: Preskúmať vzťah medzi vnímanou kvalitou ošetrovateľskej starostlivosti a výskytom chýbajúcej starostlivosti na pediatrických oddeleniach.

Metódy: Výskum mal prierezový dizajn a uskutočnil sa vo vybranej detskej fakultnej nemocnici od apríla do septembra 2024. Výskumný súbor tvorilo 100 sestier zo šiestich oddelení. Na zber údajov boli použité nástroje EPAECQC (Scale of Perception of Nursing Activities that Contribute to Nursing Care

Quality) a MISSCARE Survey – Pediatric. Údaje boli spracované v programe SPSS 25.0 pomocou deskriptívnej a induktívnej štatistiky.

Výsledky: Zistenia poukazujú na negatívne korelácie medzi prevalenciou chýbajúcej starostlivosti a hodnotením kvality v oblastiach podpory zdravia ($r = -0,223$), pohody a starostlivosti o seba ($r = -0,233$) a funkčnej readaptácie ($r = -0,270$). Medzi najčastejšie chýbajúce aktivity patrila účasť na vizitách, mobilizácia pacienta a starostlivosť o ústnu dutinu, pričom najvýznamnejšími dôvodmi boli nedostatok alebo nefunkčnosť zdravotníckych pomôcok.

Záver: Výsledky potvrdzujú, že chýbajúca starostlivosť negatívne ovplyvňuje kvalitu pediatrickej ošetrovateľskej starostlivosti a zdôrazňujú potrebu adekvátneho personálneho, materiálneho zabezpečenia a efektívnej komunikácie v zdravotníckych tímoch.

Kľúčové slová: Chýbajúca ošetrovateľská starostlivosť. Kvalita starostlivosti. Nemocničná starostlivosť. Pediatrické ošetrovateľstvo. Sestry.

INTRODUCTION

In modern healthcare systems, quality nursing care is a cornerstone of effective and safe patient outcomes. Nowhere is this more critical than in pediatric care units, where the complexity of care is heightened by the physiological and psychosocial vulnerability of children (Sheehan et al., 2024). The concept of quality of nursing care encompasses both technical proficiency and interpersonal competencies, such as empathy, communication, and responsiveness to patient needs (MacKay et al., 2024; Osei Appiah et al., 2022). According to Donabedian's model (1988), quality care is a multidimensional construct involving structure, process, and outcome – each of which must be aligned to ensure safe, timely, and patient-centered care (Yang et al., 2025).

Despite healthcare professionals' commitment to quality, the reality of clinical practice often reflects a disparity between what should be done and what is actually achieved (Nantsupawat et al., 2022). One of the most pressing challenges in pediatric units is missed nursing care – defined as any aspect of required patient care that is omitted (either in part or in whole) or significantly delayed (Kalisch et al., 2009). Missed care represents a latent form of patient harm that may not immediately manifest in adverse events but significantly undermines care quality, especially in children whose conditions may deteriorate rapidly (Kohanová et al., 2024). The prevalence of missed nursing care in pediatric units has been associated with systemic issues such as nurse understaffing, high workload, inefficient resource allocation, and emotional burnout (Maffeo et al., 2025).

Research increasingly points to a strong association between perceived care quality and the incidence of missed nursing care. When nurses perceive that they are unable to provide care in accordance with professional standards and patient needs, their evaluation of care quality declines (Babaei et al., 2024; Kohanová et al., 2024). Similarly, when patients' families observe lapses in routine care or feel insufficiently informed, their satisfaction – a key indicator of perceived quality – deteriorates (Karadaş et al., 2024). Nurses not only address medical issues but also manage fear, anxiety, and behavioral responses in children. When such care is missed, the consequences extend beyond physical health to developmental and psychological wellbeing (Bagnasco et al., 2019). Research underscores that missed care in pediatric settings is often underreported but has significant implications for patient outcomes, trust in the healthcare system, and nurses' job satisfaction (Bagnasco et al., 2019; Maffeo et al., 2025).

AIM

This study aimed to examine the association between perceived quality of nursing care and the prevalence of missed nursing care in pediatric units.

SAMPLE

A convenience sampling approach was used. To meet the study objectives, one children's teaching hospital was selected, and written approval from its management was obtained. Questionnaires were distributed across six clinical wards – four standard

inpatient units and two intensive care units. In total, 160 nurses who met the inclusion criteria (active employment in the hospital and direct provision of patient care) were invited to participate. Of the distributed questionnaires, 119 were returned (74.4 %). Nineteen incomplete questionnaires were excluded from the analysis.

The final sample consisted of 100 nurses from six hospital wards, aged 20 to 63 years. The largest proportion of respondents worked in standard pediatric wards ($n = 62$; 62.0 %). Most respondents held a bachelor's degree ($n = 42$; 42.0 %), followed by a vocational school qualification ($n = 28$; 28 %), a master's degree ($n = 19$; 19 %), and a diploma ($n = 11$; 11 %). The most common job position was staff nurse ($n = 36$; 36.0 %), followed by specialist nurse ($n = 25$; 25 %), advanced practice nurse ($n = 22$; 22 %) and practical nurse-assistant ($n = 17$; 17 %). On average, respondents reported 1 – 12 overtime hours per month ($n = 49$; 49.0 %), and the majority indicated no intention to leave their current position ($n = 71$; 71.0 %).

METHODS

This cross-sectional study adhered to the STROBE checklist. The research was conducted from April to September 2024, with written approval obtained from the hospital management and the nurse managers of participating wards. Informed consent was subsequently obtained from all participating nurses, and all data were collected and processed in accordance with GDPR regulations, ensuring anonymity and confidentiality. The respondents received an anonymous questionnaire set consisting of three sections: (I) quality of nursing care, measured using the EPAECQC (Scale of Perception of Nursing Activities that Contribute to Nursing Care Quality, Martins et al., 2016) instrument, which included 25 closed-ended items rated on a four-point Likert scale (1 – never, 2 – rarely, 3 – often, 4 – always); (II) missed nursing care, assessed using the MISSCARE Survey – Pediatric (Bagnasco et al., 2018), comprising part A with 29 closed-ended items evaluating nursing care activities frequently omitted (1 – never, 2 – rarely, 3 – occasionally, 4 – frequently, 5 – always, 0 – not applicable) and part B with 17 closed-ended items evaluating reasons for missed care (very significant – 4, significant – 3, less significant – 2, none – 1); and (III) Demographic data, which contained 6 items covering following variables: unit type, age,

education, job position, overtime hours, intent to leave.

Data were processed using SPSS Statistics version 25.0. Descriptive statistics were applied to describe the sample and two instruments (mean, frequency, standard deviation, minimum, maximum values). Nonparametric tests were employed for inferential analysis. Spearman's correlation coefficient (ρ) was used to examine the association between the overall and subscale scores of the EPAECQC instrument and the mean score of the MISSCARE Survey – Pediatric (part A, part B). Statistical significance was set at $p < 0.05$.

The reliability analysis demonstrated satisfactory internal consistency of the applied instruments, with Cronbach's alpha coefficients of 0.851 for the EPAECQC scale, 0.965 for MISSCARE Survey – Pediatric Part A, and 0.853 for Part B, indicating a high level of reliability across all measurement domains.

RESULTS

Perceived quality of nursing care

The overall mean score of the EPAECQC instrument was 3.32 (SD = 0.326), reflecting an overall positive evaluation of the quality of nursing activities (Table 1).

Table 1 EPAECQC and its subscales

Subscales of the EPAECQC	Min.	Max.	M	SD
Patient satisfaction	1	4	3.31	0.532
Health promotion	1	4	3.01	0.633
Prevention of complications	1	4	3.42	0.550
Well-being and self-care	1	4	3.27	0.473
Functional readaptation	1	4	3.50	0.412
Nursing care organization	1	4	3.43	0.650
Responsibility and rigor	1	4	3.30	0.402
Mean score of the EPAECQC	1	4	3.32	0.326

Legend: Min. (minimal value), Max. (maximal value), M (mean), SD (standard deviation)

The highest-rated subscale was “Functional Readaptation” (M = 3.50; SD = 0.412), which reflects nursing competencies aimed at restoring or maintaining patients' functional abilities, supporting independence in daily activities, and facilitating adaptation to health limitations. In contrast, the “Health Promotion” subscale received the lowest mean score (M = 3.01; SD = 0.633). This domain refers to preventive and educational nursing activities focused on strengthening patients' health literacy, self-care capacity, and long-term health outcomes.

Prevalence and patterns of missed nursing care

The average prevalence of missed nursing care in pediatric care units was 56.1 %, with nearly all nurses (95.7 %) reporting that they had omitted at least one nursing activity during their most recent shift. On average, each nurse missed approximately 13.7 nursing care activities. The three most frequently missed nursing activities were participation in daily bedside rounds with pediatric patients (M = 3.40, SD = 1.911), walking with the pediatric patient three times per day or as indicated in the nursing plan, if clinically appropriate (M = 3.06, SD = 1.413), and oral cavity care (M = 2.89, SD = 1.402). In contrast, the three least frequently missed activities were hand disinfection between individual patient procedures (M = 2.36, SD = 1.639), responding to a call signal or alarm within five minutes (M = 2.42, SD = 1.653), and assessment of peripheral and/or central venous catheter insertion sites according to current standards (M = 2.42, SD = 1.610).

The three most significant reasons for the occurrence of missed nursing care were malfunctioning of necessary medical equipment (M = 3.45, SD = 0.892), shortage of required medical equipment (M = 3.44, SD = 0.914), and insufficient supply of necessary medications (M = 3.39, SD = 0.994). In contrast, the three least significant reasons were tension or communication failures within the nursing team (M = 2.01, SD = 1.094), tension or communication failures with the medical staff (M = 2.01, SD = 1.010), and emergency situations involving pediatric patients (M = 2.05, SD = 1.029).

Table 2 Association between perceived quality care and missed nursing care

Variables	Mean score of the EPAECQ	Patient satisfaction	Health promotion	Prevention of complications	Well-being and self-care	Functional readaptation	Nursing care organization	Responsibility and rigor
Mean score of MISS-CARE Survey (A)	-0.169	0.006	-0.223*	-0.074	-0.233*	-0.270**	-0.166	0.009
Mean score of MISS-CARE Survey (B – labor resources)	-0.110	-0.051	-0.038	-0.122	-0.181	-0.231*	0.097	-0.216*
Mean score of MISS-CARE Survey (B – communication)	-0.094	-0.037	-0.228*	-0.069	-0.059	0.043	0.097	-0.039
Mean score of MISS-CARE Survey (B – material resources)	-0.146	0.031	-0.164	-0.284**	-0.128	0.170	0.073	-0.077

Association between perceived quality care and missed nursing care

Statistically significant correlations (Table 2) were found between the prevalence of missed nursing care and perceived quality of nursing care, specifically in health promotion ($r = -0.223$; $p \leq 0.001$), well-being and self-care ($r = -0.233$; $p \leq 0.05$), and functional readaptation ($r = -0.270$; $p \leq 0.001$), indicating that higher levels of missed care were associated with lower quality ratings. Significant relationships were also observed between staff-related reasons and quality in functional readaptation ($r = 0.231$; $p \leq 0.05$) and responsibility and consistency ($r = -0.216$; $p \leq 0.001$). Moreover, communication-related causes correlated negatively with patient satisfaction ($r = -0.228$; $p \leq 0.05$), and material-related causes correlated negatively with prevention of complications ($r = -0.284$; $p \leq 0.001$). Overall, greater prevalence or perceived causes of missed care corresponded with lower evaluations of care quality.

DISCUSSION

The study provides clear evidence of a negative relationship between missed nursing care and perceived quality of care in pediatric units. Higher levels of missed care were associated with lower scores in health promotion, well-being and self-care, and functional readaptation, confirming that omissions directly undermine essential patient-centered outcomes. These findings are consistent with international literature positioning missed care as a sensi-

tive indicator of care quality and patient safety (Babaei et al., 2024; Kohanová et al., 2024).

In pediatric settings, care omissions typically arise from systemic pressures such as inadequate staffing, limited material resources, and heavy workloads (Kohanová et al., 2024). Under these conditions, nurses prioritize acute clinical needs, often neglecting psychosocial, educational, and rehabilitative activities that are critical for children's holistic development (Bagnasco et al., 2018; Bagnasco et al., 2019). Thus, missed care reflects broader organizational deficiencies rather than isolated task failures (Karadaş et al., 2024).

The strong inverse association with functional readaptation is especially significant. Since pediatric nurses play a key role in supporting recovery and developmental reintegration, omissions in rehabilitation-related care may contribute to long-term functional limitations (Sheehan et al., 2024). This pattern aligns with Donabedian's (1988) premise that structural and process shortcomings inevitably affect outcomes. Staff-related causes such as turnover and burnout further disrupt continuity and accountability, reducing both care quality and job satisfaction (Topal et al., 2024).

Material resource shortages also proved influential. Limited access to equipment and supplies was linked to poorer performance in complication prevention, mirroring findings from Nantsupawat et al. (2022) and Boudreau and Rhéaume (2024). Because pediatric care requires age-specific devices and monitoring tools, resource gaps pose heightened

safety risks and undermine nurses' confidence in delivering competent care.

Communication-related omissions emerged as another key determinant of reduced satisfaction. Ineffective communication with families weakens the therapeutic relationship, increases parental anxiety, and may jeopardize adherence to care plans (Osei Appiah et al., 2022; MacKay et al., 2024). These findings reinforce the centrality of transparent, empathetic dialogue in family-centered pediatric care.

The hierarchy of missed activities such as bedside rounds, mobilization, and oral care reflects the predictable deprioritization of non-urgent but essential interventions. Educational and relational tasks were among the most omitted, echoing previous evidence that these activities often fall aside under time pressure despite their importance for child comfort and emotional stability (Maffeo et al., 2025). Although team communication issues were less frequently reported, their presence still threatens collaborative performance and may contribute to fragmented care (Yang et al., 2025). Supportive leadership and psychological safety remain crucial for effective workload distribution and error prevention (Topal et al., 2024).

Overall, the findings reinforce that missed nursing care is a systemic signal arising from the interplay of staffing adequacy, resource availability, communication, and organizational culture. Donabedian's structure-process-outcome framework provides a useful lens for interpreting these relationships. Targeted interventions including improved staffing ratios, continuous professional development, stronger leadership support, and reliable resource management are essential for reducing care omissions. Regular monitoring of missed care should be integrated into quality-assurance processes to identify emerging risks and guide evidence-based workforce planning (Yousef et al., 2022).

This study has several limitations. Data were collected from a single hospital, which restricts the generalizability of the findings. The cross-sectional design prevents establishing causal relationships. Results were based on self-reported questionnaires, which may be influenced by response bias or subjective perceptions. Future research should include larger, multicenter samples and longitudinal designs to enhance validity and representativeness.

CONCLUSION

In conclusion, the present analysis confirms that missed nursing care significantly compromises the perceived quality of pediatric care across multiple dimensions, including health promotion, functional recovery, and patient satisfaction. Targeted strategies enhancing staffing stability, interprofessional communication, and logistical support are essential to strengthen the safety and integrity of pediatric nursing practice. As pediatric healthcare evolves amid increasing complexity, prioritizing the elimination of care omissions will be pivotal in ensuring both immediate and long-term positive outcomes for children and their families.

REFERENCES

- BABAEI S., AMINI K., RAMEZANI-BADR F. Unveiling missed nursing care: a comprehensive examination of neglected responsibilities and practice environment challenges. *BMC health services research*. 2024; 24 (1): 977.
- BAGNASCO A., ZANINI M., ALEO G. et al. Development and validation of the MISSCARE survey - Pediatric version. *Journal of advanced nursing*. 2018; 74 (12): 2922-2934.
- BAGNASCO A., DASSO N., ROSSI S. et al. Missed care in children's nursing-An emergent concern. *Journal of advanced nursing*. 2019; 75(5): 921-923.
- BOUDREAU C., RHÉAUME A. Impact of the Work Environment on Nurse Outcomes: A Mediation Analysis. *Western journal of nursing research*. 2024; 46 (3): 210-218.
- DONABEDIAN A. The quality of care. How can it be assessed?. *JAMA*. 1988; 260(12): 1743-1748.
- KALISCH B.J., LANDSTROM G.L., HINSHAW A.S. Missed nursing care: a concept analysis. *Journal of advanced nursing*. 2009; 65 (7): 1509-1517.
- KARADAŞ A., ERGÜN S., KAYNAK S. Relationship between missed nursing care and patients' trust in nurses and satisfaction with care: A cross-sectional study. *Nursing & health sciences*. 2024; 26 (3): e13149.
- KOHANOVÁ D., BARTONÍČKOVÁ D., ŽIAKOVÁ K. Missed nursing care as reported by paediatric nurses: A cross-sectional study. *Journal of clinical nursing*. 2024; 33 (4): 1444-1458.
- MACKAY L.J., CHANG U., KREITER E. et al. Exploration of trust between pediatric nurses and

- children with a medical diagnosis and their caregivers on inpatient care units: A scoping review. *Journal of pediatric nursing*. 2024; 78: e1-e30.
- MAFFEO M., PARENTE E., CIOFI D. Identifying missed care in pediatric nursing: A scoping review. *Journal of pediatric nursing*. 2025; 80: 115-120.
- MARTINS M.M., GONÇALVES M.N., RIBEIRO O.M. et al. Quality of nursing care: instrument development and validation. *Revista brasileira de enfermagem*. 2016; 69 (5): 920-926.
- NANTSUPAWAT A., POGHOSYAN L., WICHAIKHUM O.A. et al. Nurse staffing, missed care, quality of care and adverse events: A cross-sectional study. *Journal of nursing management*. 2022; 30 (2): 447-454.
- OSEI APPIAH E., APPIAH S., KONTOH S. et al. Pediatric nurse-patient communication practices at Pentecost Hospital, Madina: A qualitative study. *International journal of nursing sciences*. 2022; 9 (4): 481-489.
- SHEEHAN R., RYDER M., BRENNER M. Quality care for children and young people with complex and integrated care needs: A discussion on nursing-sensitive indicators. *International journal of nursing studies advances*. 2024; 8: 100275.
- TOPAL S., ÇAKA S.Y., ÖZTÜRKLER S. et al. Burnout in pediatric nurses: Examining the relationship between moral distress and missed nursing care. *Journal of pediatric nursing*. 2024; 78: e404-e410.
- YANG J., LIU F., YANG C. et al. Application of Donabedian Three-Dimensional Model in Out-patient Care Quality: A Scoping Review. *Journal of nursing management*. 2025; 2025: 6893336.
- YOUSEF N., MOREAU R., SOGHIER L. Simulation in neonatal care: towards a change in traditional training? *European journal of pediatrics*. 2022; 181 (4): 1429-1436.