Golestan University of Medical Sciences

Journal of Research Development in Nursing and Midwifery
(J Res Dev Nurs Midw)
Online ISSN: 2588-3038

# Nurses´ reports on rationed nursing care in selected private hospitals: Preliminary results

Dominika Kohanová [1*], Andrea Solgajová [1], Daniela Bartoníčková [2]

1. Department of Nursing, Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra, Nitra, Slovak Republic
2. Department of Nursing, Faculty of Health Sciences, Palacký University Olomouc, Olomouc, Czech Republic
* Correspondence: Dominika Kohanová. Department of Nursing, Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra, Nitra, Slovak Republic. Tel: +421948842342; Email: dkohanova@ukf.sk

## Abstract

**Background:** The phenomenon of rationed nursing care represents a global problem that jeopardizes the provision of quality and safe care. To date, there are a limited number of studies that focus on the occurrence of this phenomenon in the private care setting.

**Objectives:** To explore the frequency and patterns of rationed nursing care and the factors that contribute to its frequency in selected private hospitals in Slovakia.

**Methods:** This descriptive cross-sectional study was conducted between November 2022 and January 2023. Data collection was carried out using the Basel Extent Rationing of Nursing Care – Revised. The study sample consisted of 174 nurses working in three selected Slovak private hospitals. In data analysis, we used descriptive statistics for the evaluation of the instrument and the sample characteristics. Additionally, differences in the frequency of rationed nursing care based on selected variables were analyzed using nonparametric tests (Mann-Whitney U test; Kruskal-Wallis test). For numerical variables the Spearman correlation coefficient (r) was used. The results were tested at a significance level of $p < 0.05$.

**Results:** The frequency of rationed nursing care was 49.3%. The most frequently withheld nursing care activity was increased supervision of confused patients and the need for their restraint (69.8%; 2.26 ± 1.09). Differences in the evaluation of rationed nursing care were identified based on the type of unit and the position of the job. The occurrence of rationed nursing care was influenced by nurse experience in the current position, evaluation of quality care, overall patient safety degree, number of patients/shifts, number of admitted ad discharged patients/shifts, job satisfaction, satisfaction with the current position, and satisfaction with teamwork in our study ($p < 0.05$).

**Conclusion**: This study serves as a catalyst for nurse managers to take proactive steps in addressing rationed nursing care, fostering a culture of safety, and promoting excellence in patient-centered care delivery within private hospital settings in Slovakia. By embracing innovation, collaboration, and a commitment to continuous improvement, we can overcome the challenges posed by rationed care and uphold the principles of quality, safety, and compassion in nursing practice.

**Article History**

Received: 21 November 2023
Received in revised form: 24 April 2024
Accepted: 6 May 2024
Published online: 22 June 2024
DOI: 10.29252/jgbfnm.21.2.6

**Keywords**

Health care rationing
Nursing care
Patient safety
Private hospitals
Surveys and Questionnaires

**Article Type:** Original Article



## Highlights

**What is current knowledge?**

- Rationed nursing care represents a commonly observed phenomenon in acute care facilities that directly threatens the provision of quality and safe nursing care.
- Most contributing factors are related to staffing, such as nurse shortage, lack of assistive personnel.

**What is new here?**

- The estimates of rationed nursing care are high, indicating a serious problem in private hospitals.
- Factors such as unit type, job position, nurse experience in the current position, quality care evaluation, overall degree of quality care, overall patient safety degree, number of patients/shifts, number of admitted and discharged patients/shifts, job satisfaction, satisfaction with the current position and satisfaction with teamwork significantly influence the frequency of rationed nursing care in selected private hospitals.

## Introduction

Rationed nursing care represents a current problem with a high frequency in both acute and long-term care settings (1). The phenomenon of rationed nursing care is at the forefront of research interest to address the challenges of nursing shortages, quality of care, patient safety, and other topics that contribute to its occurrence. It signifies an imbalance between the demands for nursing care and the available resources, whether personnel, material or time-related (2). Internationally, between 55 and 98% of nurses report omitting at least one nursing activity in their shift (1,2). The frequency of this phenomenon is therefore considered high. Several international studies (3,4-6) indicate that nurses most often do not provide nursing activities classified as independent, that is, those they perform based on their knowledge, skills and abilities. Among these activities, patient education, emotional support, documentation of care provided, and the creation of nursing plans (5,7,8) were identified. Furthermore, several predictors of rationed nursing care were described in the literature, including staffing, adequate resources, safety climate and teamwork (2). Regarding individual factors, they were divided in the systematic review of Chiappinotto et al. (9) into three main groups that include antecedents related to unit level (such as staff level, workload, overtime, work environment), nurse level (e.g., age, gender, professional experience, education, satisfaction) and patient level (clinical instability). Given their significance, all of them contribute to the frequency of rationed nursing care in various healthcare settings.

The concept of rationed nursing care was first introduced by Swiss authors (10), who simultaneously developed a conceptual framework reflecting factors influencing nursing decision making processes and prioritization of nursing care, as well as the outcomes of nurses and patients. The conceptual framework illustrates that rationed nursing care arises when nurses lack the resources to provide adequate care to their patients (3). The extent of rationing is explained as the number of necessary nursing activities that are omitted or left unfinished. Schubert et al. (10) defined the concept of rationed nursing care as "omitting or failing to provide necessary nursing activities for patients due to a lack of resources". The authors also developed a specific tool to assess rationed nursing care, the Basel Extent of Rationing of Nursing Care (BERNCA), which was later modified (3) and published as a revised version (BERNCA - R). The original BERNCA tool was also adapted for use in the environment of American surgical nurses and published as Perceived Implicit Rationing of Nursing Care (PIRNCA) (11). This tool has been validated under the conditions of the Slovak Republic (12,13). In Slovakia, several studies have been conducted to assess the occurrence of rationed nursing care using the PIRNCA tool (14,15). However, research in this area is still insufficient and, under the conditions of private healthcare facilities, is completely absent. Therefore, our study aimed to explore the frequency and patterns of rationed nursing care and the factors that contribute to its frequency in selected private Slovak hospitals.

## Methods

In this cross-sectional study adhered to the STROBE checklist, to achieve the objective of the study, three private hospitals from three regions of Slovakia were approached. After receiving approval from the head nurses, the nurses were chosen through convenience sampling. The inclusion criteria for the nurses in this study were: a) employment in adult care units (medical-surgical or intensive care units) as a registered nurse or practical nurse; b) provision of informed

consent; c) involvement in bedside nursing care. In contrast, the exclusion criteria for the respondents were: a) non-employment in 12-hour shifts; b) employment in gynaecology-obstetric care units (since nurses in these settings perform specialized nursing tasks not covered by the rationed nursing care instrument utilized in this study). A total of 269 questionnaires were distributed, 174 of which were returned (response rate: 64.7%). Within the sample size calculation, we used the general rule of including at least 5 respondents per item in the questionnaire used in data collection.

Data were collected from November 2022 to January 2023 using the Slovak version of the Basel Extent of Rationing of Nursing Care (BERNCA-R) instrument, which is designed to evaluate rationed nursing care (3). The translation process employed the forward-backward method. Face and content validity were assessed during the translation process. Seven nurses working in the medical-surgical care units of the university hospital examined face validity, considering the BERNCA-R as a comprehensive instrument reflecting the scope of the competencies of Slovak nurses. According to their evaluation, all items were deemed relevant to measure the frequency of rationed nursing care. Furthermore, the validity of the content was evaluated by a panel of seven experts, including medical-surgical care unit nurse managers, one intensive care unit nurse manager, two nurses, and two practical nurses working in medical-surgical care units. The experts used a four-point Likert scale (1 - not relevant, 4 - highly relevant) to evaluate each of the BERNCA-R items (16). The overall content validity index (S-CVI), calculated as the average assessment of individual elements (I-CVI), was 0.97, indicating excellent validity. At the individual item level, the expert agreement ranged from 0.91 to 0.97. On the basis of these results, no adjustments were made to the instrument, as the expert panel considered the BERNCA-R tool items to be relevant.

BERNCA-R comprises 32 items that are specific and include dependent and independent nursing activities that reflect the competencies of nurses and practical nurses in the Slovak Republic. Nurses record responses to these items using a 5-point frequency scale (0 - not necessary; 1 - never; 2 - rarely; 3 - sometimes; 4 - often). They evaluated their ability or inability to provide individual nursing activities to patients during the last seven working shifts. A higher mean score of the instrument represents a higher frequency of rationed nursing care (4). Several sociodemographic data were included in the instrument, such as categorical (unit type, education, job position, number of overtime hours in the last month) and numerical variables. Variables related to job satisfaction (overall job satisfaction, satisfaction with the current position, satisfaction with teamwork) were evaluated using the 5-point Likert scale (1 - strongly dissatisfied, 5 - strongly satisfied). The variable reflecting the evaluation of quality care was assessed using the 10-point Likert scale (1 - poor quality, 10 - excellent quality), and the variable reflecting the overall patient safety degree was assessed using the 5-point Likert scale (1 - poor safety, 5 - excellent safety). The remaining variables included fields to fill in the free response (numeric variables).

Data were processed using descriptive and inferential statistics in the SPSS v.25. Missing data was analyzed and ranged from 0.1% to 0.3%, indicating high acceptability of the BERNCA-R instrument. Furthermore, the instrument and the characteristics of the research sample were evaluated using descriptive statistics (mean, SD, frequencies). The frequency of rationed nursing care can be calculated using different methods. This includes the utilization of the arithmetic mean score, obtained by calculating all elements to derive the overall mean composite score. Similarly, there are various methods to characterize the frequency of rationing by activity, both individually and collectively. These alternative methods involve tallying dichotomized occurrences against a specific threshold, including the percentage of rationing exceeding "never," the average number of rationed elements surpassing "never," and the mean percentage of rationed elements exceeding "never." In our study, all these methods were used to ensure the completeness of the findings obtained, therefore, different interpretations of the frequency of rationed nursing care can be obtained.

Furthermore, differences in the frequency of rationed nursing care based on selected variables were analyzed using nonparametric tests (Mann-Whitney U test; Kruskal-Wallis test) based on the result of the Kolmogorov-Smirnov test ($p < 0.05$). For numerical variables (e.g., age), the Spearman correlation coefficient (r) was used. The results were tested at a significance level of $p < 0.05$. The BERNCA-R tool can be considered reliable on the basis of the Cronbach alpha coefficient, which was 0.949.

## Results

The sample consisted of nurses and practical nurses (N = 174), who worked in selected Slovak private hospitals, mainly in internal care units (n = 57; 35.6%), followed by surgical care units (n = 39; 24.4%). Most nurses had vocational secondary education in nursing (n = 54; 31.4%), followed by a bachelor's degree in nursing (n = 46; 26.7%). Regarding the job position, the most respondents were nurses (n = 73; 42.2%) and clinical nurse specialist (n = 53; 30.6%). Most nurses also did not have overtime hours in the past month (n = 65; 37.4%). The characteristics of the sample with respect to numerical variables are reported in Table 1.

### Frequency and patterns of rationed nursing care

The overall frequency (average percentage of responses more than never for all items in the BERNCA-R questionnaire) of rationed nursing care was 49.3% as reported by nurses in our study. However, the mean score of the BERNCA-R instrument reached 1.75 ± 0.53 (out of 4), indicating the rare occurrence of this phenomenon. Additionally, in our sample, 90.8% of nurses and practical nurses reported not providing one or more nursing activities during their last seven working shifts. The average number of missed nursing activities was 16.2 per nurse. In general, the most reported missed nursing activity was restraining confused patients instead of watching them (2.26 ± 1.09), even when considering option 4 (frequently missed) reported by nurses (18.8%). The list of nursing care activities is reported in Table 2.

### Factors contributing to the frequency of rationed nursing care

We identified two factors that contribute to the frequency of rationed nursing care, specifically the type of unit and the position of the job (Table 3). Nurses who worked in surgical care units ($p < 0.001$) and those occupying the managerial position ($p = 0.045$) reported higher estimates of rationed nursing care.

We also identified statistically significant associations between the frequency of rationed nursing care and selected variables. Nurses who had less experience in the current position ($r = -0.160$; $p = 0.001$) reported higher estimates of rationed nursing care. At the same time, nurses who rated the quality of care ($r = -0.382$; $p = 0.001$) and the overall degree of patient safety ($r = -0.211$; $p = 0.001$) at their workplace poorly and expressed lower job satisfaction ($r = -0.226$; $p = 0.001$), satisfaction in their current position ($r = -0.316$; $p = 0.001$), as well as satisfaction with teamwork ($r = -0.266$; $p = 0.001$) reported higher estimates of rationed nursing care. The higher the total number of patients ($r = 0.273$; $p = 0.001$), as well as the number of admitted patients ($r = 0.277$; $p = 0.001$) and discharged patients ($r = 0.202$; $p = 0.001$) on the last shift, the more rationed nursing care was reported by nurses in our sample. Statistically significant relationships were not confirmed between rationed nursing care and age ($r = -0.045$; $p = 0.570$) and nurse experience in total ($r = -0.079$; $p = 0.336$).

**Table 1**. Sample characteristics (N=174)

| Variable | Min. | Max. | Mean ± SD |
|---|---|---|---|
| Nurse experience in total | 0.5 | 41 | 17.91 ± 11.05 |
| Nurse experience in the current position | 0.5 | 40 | 10.68 ± 8.37 |
| Age | 20 | 60 | 40.98 ± 10.27 |
| Evaluation of quality care | 1 | 10 | 8.16 ± 1.50 |
| Patient safety degree | 1 | 5 | 3.92 ± 0.73 |
| Number of patients/shifts | 1 | 25 | 11.16 ± 6.69 |
| Number of admitted patients/shift | 0 | 8 | 2.51 ± 1.92 |
| Number of discharged patients/shifts | 0 | 8 | 2.17 ± 1.90 |
| Job satisfaction | 1 | 5 | 3.96 ± 0.72 |
| Satisfaction with the current position | 1 | 5 | 3.82 ± 0.67 |
| Satisfaction with teamwork | 1 | 5 | 3.94 ± 0.77 |

Legend: Min. - Minimal value, Max. - Maximal value, M - Mean, SD - Standard Deviation

**Table 2.** Rationed nursing care based on the BERNCA-R instrument

| No. | Items | N | Mean | Standard Deviation | Never (%) | Rarely (%) | Sometimes (%) | Often (%) |
|---|---|---|---|---|---|---|---|---|
| 1 | Sponge bath | 165 | 1.76 | 1.01 | 57.3 | 29.3 | 6.7 | 9.1 |
| 2 | Partial sponge bath | 165 | 1.63 | 0.87 | 59.4 | 22.4 | 13.9 | 4.2 |
| 3 | Skin care | 169 | 1.65 | 0.87 | 55.6 | 29.6 | 8.9 | 5.9 |
| 4 | Oral hygiene | 164 | 1.63 | 0.88 | 57.3 | 29.3 | 6.7 | 6.7 |
| 5 | Dental hygiene | 165 | 1.78 | 0.93 | 48.5 | 32.7 | 10.9 | 7.9 |
| 6 | Assistance to patient who are unable to eat independently | 169 | 1.49 | 0.76 | 65.1 | 24.3 | 7.7 | 3.0 |
| 7 | Mobilize patients | 172 | 1.91 | 0.91 | 40.1 | 35.5 | 18.0 | 6.4 |
| 8 | Change position of patients | 173 | 1.64 | 0.82 | 54.3 | 31.8 | 9.8 | 4.0 |
| 9 | Change patients´ bed linen strongly soiled | 174 | 1.38 | 0.71 | 74.1 | 15.5 | 8.6 | 1.7 |
| 10 | Offer emotional or psychological support | 173 | 1.95 | 0.91 | 35.8 | 42.2 | 13.3 | 8.7 |
| 11 | Have necessary conversation with a patient or family | 174 | 1.98 | 0.96 | 36.8 | 39.7 | 12.6 | 10.9 |
| 12 | Inform patients about imminent tests or planned therapies | 174 | 1.76 | 0.91 | 48.9 | 34.5 | 8.6 | 8.0 |
| 13 | Using diapers instead of toilet or continence training | 173 | 1.79 | 0.94 | 49.1 | 30.1 | 13.3 | 7.5 |
| 14 | Inserting permanent catheter instead of toilet or continence training | 173 | 1.83 | 0.99 | 48.6 | 30.1 | 11.0 | 10.4 |
| 15 | Activating or rehabilitating care | 172 | 1.92 | 0.94 | 40.1 | 35.5 | 16.3 | 8.1 |
| 16 | Patient and/or family education | 171 | 1.87 | 0.97 | 45.6 | 31.6 | 13.5 | 9.4 |
| 17 | Fully prepare patients or their families for hospital discharge | 173 | 1.75 | 0.99 | 55.5 | 23.7 | 11.6 | 9.2 |
| 18 | Monitor patients as closely as had been prescribed by physicians | 174 | 1.60 | 0.85 | 58.6 | 28.2 | 7.5 | 5.7 |
| 19 | Monitor patients as closely as felt it was necessary | 174 | 1.68 | 0.92 | 56.3 | 25.9 | 10.9 | 6.9 |
| 20 | Restraining confused patients instead of watching them | 170 | 2.26 | 1.09 | 31.2 | 30.0 | 20.0 | 18.8 |
| 21 | Sedating confused patients instead of watching them | 164 | 2.01 | 0.98 | 6.0 | 39.6 | 12.2 | 12.2 |
| 22 | Measures to assist patients with unforeseen sudden or acute changes in status | 165 | 2.12 | 1.02 | 33.9 | 33.3 | 19.4 | 13.3 |
| 23 | Administer a prescribed medication and/of infusion | 173 | 1.66 | 0.89 | 57.2 | 25.4 | 11.6 | 5.8 |
| 24 | Wound dressing for patients | 171 | 1.53 | 0.73 | 60.2 | 28.7 | 9.4 | 1.8 |
| 25 | Prepare patients for tests or therapies | 174 | 1.50 | 0.69 | 60.3 | 30.5 | 8.0 | 1.1 |
| 26 | Keep patients waiting longer than 5 minutes | 173 | 1.83 | 0.92 | 45.7 | 31.8 | 16.2 | 6.4 |
| 27 | Adequate hand hygiene | 174 | 1.41 | 0.65 | 66.1 | 28.2 | 4.0 | 1.7 |
| 28 | Comply with necessary disinfection measures | 174 | 1.47 | 0.67 | 61.5 | 32.8 | 3.4 | 2.3 |
| 29 | Have enough time to study the care plans | 174 | 1.87 | 0.90 | 42.0 | 35.6 | 16.1 | 6.3 |
| 30 | Ascertain needs assessment for newly admitted patients | 174 | 1.70 | 0.80 | 48.9 | 35.6 | 12.6 | 2.9 |
| 31 | Set up patients´ care plans | 172 | 1.79 | 0.96 | 50.6 | 27.9 | 13.4 | 8.1 |
| 32 | Document and evaluate the care carried out for patients | 174 | 1.91 | 0.96 | 42.0 | 34.5 | 14.4 | 9.2 |
| Overall mean score of the BERNCA-R | | 174 | 1.75 | 0.53 | - | - | - | - |

% Of responses of 0 (not applicable) were not included in the Table, as respondents in this study did not indicate this option

**Table 3.** Differences in the frequency of rationed nursing care based on selected variables

| Variables | $M_{rank}$ | Rationed nursing care (p) |
|---|---|---|
| **Unit type** | | |
| Surgical | 100.42 | 0.001* |
| Internal | 90.16 | |
| Intensive | 60.24 | |
| Other | 59.24 | |
| **Education** | | |
| Vocational secondary education | 94.21 | 0.396 |
| Higher education | 79.63 | |
| University education (bachelor) | 80.46 | |
| University education (master or higher) | 90.77 | |
| **Job position** | | |
| Practical nurse | 104.58 | 0.045* |
| Nurse | 81.47 | |
| Clinical nurse specialist | 81.92 | |
| Advanced practice nurse | 87.12 | |
| Nurse manager | 109.86 | |
| **Overtime hours in past month** | | |
| None | 87.82 | 0.657 |
| 1-12 hours | 83.54 | |
| More than 12 hours | 92.47 | |

Mrank – Mean rank, * $p < 0.05$

## Discussion

The results of the study indicate that rationed nursing care is a relatively common and highly frequent phenomenon in selected private hospitals in Slovakia, based on the results of three methods used in the calculation of the frequency of rationed nursing care (the average percentage of responses more than never for all items in the BERNCA-R questionnaire; the percentage of nurses reported at least one nursing care activity being missed; the average number of activities being missed by nurses). Based on the mean score of the BERNCA-R questionnaire, it could be concluded that the level of rationed nursing care in this study seemed to be lower but comparable to the results of national and international studies (6,8,15).

More importantly, the frequency of rationed nursing care in our study reached almost 50%, representing a higher incidence of this phenomenon in private hospitals. In university and faculty hospitals, the frequency of rationed nursing care was approximately 40% (13), and in the European region it was less than 30% (17). In this context, it was alarming to find that most nurses (90.8%) did not provide one or more nursing activities for their patients. Our results are consistent with several studies conducted in the European context (6,8,15), but also in USA (18), and Asia (7). However, the percentage of nurses who do not provide one or more nursing activities for their patients could be even higher, approaching almost 100% (1). Furthermore, the number of nursing activities that were left undone varied in different countries, for example, Czech nurses did not provide approximately one third of nursing activities (19), for American nurses, it is approximately 1/2 to 3/4 of nursing activities (20,21). In the Slovak university and faculty hospitals, it is less than half (4). The current study conducted in private hospitals supports these results from Slovakia. When comparing the nursing activities most frequently rationed by nurses, we can conclude that they mainly involve independent nursing activities such as the supervision of patients or communication with patients and their families. Our results are in line with national and international studies (5,6,8,14,15). In Slovakia, the biomedical model of care still dominates, characterized mainly by the emphasis on early diagnosis of the disease and the application of effective therapy. Therefore, nursing activities are primarily related to the prescribed

treatment plan, and activities geared toward addressing psychosocial and spiritual needs take a back seat.

In our study, we identified several factors that contribute to rationed nursing care in selected Slovak private hospitals. Nurses working in surgical units reported a higher frequency of rationed nursing care compared to those working in intensive care units. Several authors have noted variations in the occurrence of this phenomenon depending on the type of unit (5,14). The higher frequency in surgical units can be explained by the high number of patients, the complexity of postoperative care, including the continuous need for monitoring, and the specific needs of surgical patients, such as increased infection control and surgical wound care (22). However, the lower frequency in intensive care units can be explained by the specific organization of work in these settings, the method of providing nursing care, fewer patients per nurse on a shift and the consideration of technical skills of nurses, along with the need to monitor patients every hour (23). The results of our study suggest that certain units may be more prone to the occurrence of rationed nursing care, which requires specific measures to address it (24). At the unit level (9), the workload was also closely related to the total number of patients, the number of admitted patients, and also the number of discharged patients. Overtime hours can often increase in relation to these, which are also significantly associated with rationed care internationally (25,26). Furthermore, correlation analysis revealed other significant relationships with rationed nursing care. In both national and international studies (1,19), the most common association with rationed nursing care was job satisfaction and assessment of quality of care. Nurses who rated the quality of patient care at their workplace as low reported more unfinished nursing activities than nurses who rated the quality of patient care as average or high. Quality of nursing care, even when subjectively assessed by nurses, is a significant factor that influences the frequency of rationed nursing care in selected private hospitals (27,28). In addition, the overall assessment of the safety climate (safety grade) also represents a significant contributing factor to rationed nursing care (29). Similarly, nurses who reported lower job satisfaction also reported a higher frequency of rationed nursing care, which is consistent with the results of several studies (5,14). As in private hospitals in Slovakia, evidence of its influence was also shown in relation to the current position (30). Job satisfaction positively influences the performance of nurses (31) and affects the ability of a nurse to perform necessary nursing activities (32,33). A significant factor was also found with respect to experience in the current position, with nurses with less experience reporting higher rates of rationed care, while the opposite is more likely to be reported abroad, with higher rates of unfinished care reported by nurses with more professional experience (26). Last but not least, a significant association has been shown with a reduction in rationed care and satisfaction with teamwork, which is frequently reported internationally (1,29).

Finally, and surprisingly, nurses occupying managerial positions reported a higher frequency of rationed nursing care in our study. Nurse managers play a crucial role in providing quality and safe nursing care (34) and serve as role models for other nurses. Given their position, they can plan targeted interventions with a focus on reducing rationed care. They are responsible for resources (for example, personnel, material technical), allowing them to identify the occurrence of rationed nursing care and the reasons that led to it (35). Nurse managers can influence the provision of nursing care and should therefore support bedside nurses and advocate for their interests. It could be expected that they would perceive that rationed care does not occur on a ward. However, the reason why they reported higher estimates of rationed care may be primarily related to the fact that they may also consider something that nurses perceive as normal or common to be rationed and do not place a high value on it.

The first limitation can be considered the design (cross-sectional) and the method of selecting respondents (purposive). The study results cannot be generalized and are valid only within the sample presented. Another limitation may be social desirability, which means that nurses answered the questions as they perceived that they were expected. The last limitation represented the use of single item questions to measure clinically relevant variables (quality care, patient safety grade).

## Conclusion

The study examined the frequency and factors that contribute to rationed nursing care in selected Slovak private hospitals. The sample consisted of nurses and practical nurses who work primarily in internal and surgical care units. The results showed a high frequency of rationed nursing care, with almost half of the respondents reporting instances of missed nursing activities. Factors such as unit type, job position, experience, workload, patient numbers, job satisfaction, quality of care assessment, safety climate and teamwork satisfaction were associated with the frequency of rationed care.

Nurse managers and policy makers must prioritize interventions to address rationed nursing care, particularly in surgical units and among nurses in managerial positions. Enhancing job satisfaction, teamwork, and resource allocation can help mitigate the occurrence of rationed care. However, the study's findings are limited by its cross-sectional design and the purpose-sampling method. Future research should employ longitudinal designs and random sampling methods to improve generalizability and validity of findings.

## Acknowledgement

The authors express their gratitude to all the respondents who participated voluntarily in this study.

## Funding sources

No financial support for the research, authorship, and/or publication of this article.

## Ethical statement

The study was approved by the institutional ethics committee (ref. no. 43/2022). Respondents were included in the sample only if they provided their informed consent. The participation of the respondents was voluntary, and the respondents were ensured of the anonymity of the research. Demographic data from participants in this study were processed according to the Regulation of the European Parliament and the EU Council 2016/679 of 27.04.2016 on the protection of persons in connection with the processing of personal data and the free movement of such data.

## Conflicts of interest

The authors declare that they have no potential conflicts of interest.

## Author contributions

Conceptualization and methodology: Dominika Kohanová, Andrea Solgajová; Data collection: Dominika Kohanová; Data analysis: Dominika Kohanová, Daniela Bartoníčková; Writing the original draft: Dominika Kohanová; Final approval: All authors.

## References

1. Action R, Papastavrou E, Suhonen R. Impacts of rationing and missed nursing care: challenges and solutions. Switzerland: Springer Cham; 2021. [View at Publisher] [DOI] [Google Scholar]
2. Jones TL, Hamilton P, Murry N. Unfinished nursing care, missed care, and implicitly rationed care: State of the science review. Int J Nurs Stud. 2015;52(6):1121-37. [View at Publisher] [DOI] [PMID] [Google Scholar]
3. Schubert M, Ausserhofer D, Desmedt M, Schwendimann R, Lesaffre E, Li B, et al. Levels and correlates of implicit rationing of nursing care in Swiss acute care hospitals--across sectional study. Int J Nurs Stud. 2013;50(2):230-9. [View at Publisher] [DOI] [PMID] [Google Scholar]
4. Norman RM, Sjetne IS. Adaptation, modification, and psychometric assessment of a Norwegian version of the Basel extent of rationing of nursing care for nursing homes instrument (BERNCA-NH). BMC Health Serv Res. 2019;19(1):969. [View at Publisher] [DOI] [PMID] [Google Scholar]
5. Piotrowska A, Lisowska A, Twardak I, Włostowska K, Uchmanowicz I, Mess E. Determinants Affecting the Rationing of Nursing Care and Professional Burnout among Oncology Nurses. Int J Environ Res Public Health. 2022;19(12):7180. [View at Publisher] [DOI] [PMID] [Google Scholar]
6. Uchmanowicz I, Kirwan M, Riklikiene O, Wolfshaut-Wolak R, Gotlib J, Schubert M. Validation of Polish version of the Basel Extent of Rationing of Nursing Care revised questionnaire. PLoS One. 2019;14(3):e0212918. [View at Publisher] [DOI] [PMID] [Google Scholar]
7. Kawano K, Oyama Y. Reliability and Validity of the Japanese Version of the Revised-Basel Extent of Rationing of Nursing Care (BERNCA-R) scale. Journal of the Japanese Society of Nursing Managemen. 2023;27(1):171-8. [View at Publisher] [DOI] [Google Scholar]
8. Radosz-Knawa Z, Kamińska A, Malinowska-Lipień I, Brzostek T, Gniadek A. Factors Influencing the Rationing of Nursing Care in Selected Polish Hospitals. Healthcare (Basel). 2022;10(11):2190. [View at Publisher] [DOI] [PMID] [Google Scholar]
9. Chiappinotto S, Papastavrou E, Efstathiou G, Andreou P, Stemmer R, Ströhm C, et al. Antecedents of unfinished nursing care: a systematic review of the literature. BMC Nurs. 2022;21(1):137. [View at Publisher] [DOI] [PMID] [Google Scholar]
10. Schubert M, Glass TR, Clarke SP, Schaffert-Witvliet B, De Geest S. Validation of the Basel Extent of Rationing of Nursing Care instrument. Nurs Res. 2007;56(6):416-24. [View at Publisher] [DOI] [PMID] [Google Scholar]
11. Jones TL. Validation of the Perceived Implicit Rationing of Nursing Care (PIRNCA) instrument. Nurs Forum. 2014;49(2):77-87. [View at Publisher] [DOI] [PMID] [Google Scholar]
12. Gurková E, Adamkovič M, Jones T, Kurucová R, Kalánková D, Žiaková K. Factor analysis, validity of the perceived implicit rationing of nursing care instrument and prevalence and patterns of unfinished nursing care in Slovakia. J Nurs Manag. 2020; 28(8):2036-47. [View at Publisher] [DOI] [PMID] [Google Scholar]

13. Kalánková D, Suhonen R, Stolt M, Kurucová R, Katajisto J, Žiaková K, et al. Psychometric testing of perceived implicit rationing of nursing care (PIRNCA). J Adv Nurs. 2020;76(6):1469-82. [View at Publisher] [DOI] [PMID] [Google Scholar]
14. Kalánková D, Bartoníčková D, Kolarczyk E, Žiaková K, Młynarska A. Factors Contributing to Rationed Nursing Care in the Slovak Republic-A Secondary Analysis of Quantitative Data. Int J Environ Res Public Health. 2022;19(2):702. [View at Publisher] [DOI] [PMID] [Google Scholar]
15. Pitoňáková J, Kurucová R, Žiaková K. Prideľovaná ošetrovateľská starostlivosť vo vybraných nemocniciach na Slovensku. Health & Caring. 2022;1(1):1-10. [View at Publisher] [DOI] [Google Scholar]
16. Polit DF, Beck CT, Owen SV. Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. Res Nurs Health. 2007;30(4):459-67. [View at Publisher] [DOI] [PMID] [Google Scholar]
17. Schubert M, Clarke SP, Glass TR, Schaffert-Witvliet B, De Geest S. Identifying thresholds for relationships between impacts of rationing of nursing care and nurse- and patient-reported outcomes in Swiss hospitals: a correlational study. Int J Nurs Stud. 2009;46(7):884-93. [View at Publisher] [DOI] [PMID] [Google Scholar]
18. Jones TL. A Descriptive Analysis of Implicit Rationing of Nursing Care: Frequency and Patterns in Texas. Nurs Econ. 2015;33(3):144-54. [View at Publisher] [PMID] [Google Scholar]
19. Zeleníková R, Gurková E, Friganovic A, Uchmanowicz I, Jarošová D, Žiaková K, et al. Unfinished nursing care in four central European countries. J Nurs Manag. 2020;28(8):1888-900. [View at Publisher] [DOI] [PMID] [Google Scholar]
20. Campbell CM, Prapanjaroensin A, Anusiewicz CV, Baernholdt M, Jones T, Patrician PA. Variables associated with missed nursing care in Alabama: A cross-sectional analysis. J Nurs Manag. 2020;28(8):2174-84. [View at Publisher] [DOI] [PMID] [Google Scholar]
21. VanFosson CA, Jones TL, Yoder LH. Monthly variation of unfinished nursing care at the US Army Burn Center. Burns. 2018;44(8):1910-19. [View at Publisher] [DOI] [PMID] [Google Scholar]
22. Dutra CKR, Salles BG, Guirardello EB. Situations and reasons for missed nursing care in medical and surgical clinic units. Rev Esc Enferm USP. 2019;53:e03470. [View at Publisher] [DOI] [PMID] [Google Scholar]
23. Falk AC, Nymark C, Göransson KE, Vogelsang AC. Missed nursing care in the critical care unit, before and during the COVID-19 pandemic: A comparative cross-sectional study. Intensive Crit Care Nurs. 2022;72:103276. [View at Publisher] [DOI] [PMID] [Google Scholar]
24. Schubert M, Ausserhofer D, Bragadóttir H, Rochefort CM, Bruyneel L, Stemmer R, et al.; RANCARE Consortium COST Action - CA 15208. Interventions to prevent or reduce rationing or missed nursing care: A scoping review. J Adv Nurs. 2021;77(2):550-64. [View at Publisher] [DOI] [PMID] [Google Scholar]
25. Eskin Bacaksiz F, Alan H, Taskiran Eskici G, Gumus E. A cross-sectional study of the determinants of missed nursing care in the private sector: Hospital/unit/staff characteristics, professional quality of life and work alienation. J Nurs Manag. 2020;28(8):1975-85. [View at Publisher] [DOI] [PMID] [Google Scholar]
26. Bragadóttir H, Kalisch BJ, Tryggvadóttir GB. Correlates and predictors of missed nursing care in hospitals. J Clin Nurs. 2017;26(11-12): 1524-34. [View at Publisher] [DOI] [PMID] [Google Scholar]
27. Ball JE, Murrells T, Rafferty AM, Morrow E, Griffiths P. 'Care left undone' during nursing shifts: associations with workload and perceived quality of care. BMJ Qual Saf. 2014;23(2):116-25. [View at Publisher] [DOI] [PMID] [Google Scholar]
28. Chaboyer W, Harbeck E, Lee BO, Grealish L. Missed nursing care: An overview of reviews. Kaohsiung J Med Sci. 2021;37(2):82-91. [View at Publisher] [DOI] [PMID] [Google Scholar]
29. Zúñiga F, Ausserhofer D, Hamers JP, Engberg S, Simon M, Schwendimann R. The relationship of staffing and work environment with implicit rationing of nursing care in Swiss nursing homes-A cross-sectional study. Int J Nurs Stud. 2015;52(9):1463-74. [View at Publisher] [DOI] [PMID] [Google Scholar]
30. Orique SB, Patty CM, Woods E. Missed nursing care and unit-level nurse workload in the acute and post-acute settings. J Nurs Care Qual. 2016;31(1):84-9. [View at Publisher] [DOI] [PMID] [Google Scholar]
31. Kousar S, Hussain M, Afzal M, Gilani A, Azhar M. Impact of job satisfaction on nurses' performance. Saudi J Nurs Health Care. 2018;1(1):49-55. [View at Publisher] [DOI] [Google Scholar]
32. Ausserhofer D, Zander B, Busse R, Schubert M, De Geest S, Rafferty AM, et al. Prevalence, patterns and predictors of nursing care left undone in European hospitals: results from the multicountry cross-sectional RN4CAST study. BMJ Qual Saf. 2014;23(2):126-35. [View at Publisher] [DOI] [PMID] [Google Scholar]
33. Castner J, Wu YW, Dean-Baar S. Multi-level model of missed nursing care in the context of hospital merger. West J Nurs Res. 2014;37(4):1-21. [View at Publisher] [DOI] [PMID] [Google Scholar]
34. Kirwan M, Schubert M. Missed or rationed nursing care: Where to now for the nurse manager? J Nurs Manag. 2020;28(8):1767-9. [View at Publisher] [DOI] [PMID] [Google Scholar]
35. Longhini J, Papastavrou E, Efstathiou G, Andreou P, Stemmer R, Ströhm C, et al. Strategies to prevent missed nursing care: An international qualitative study based upon a positive deviance approach. J Nurs Manag. 2021;29(3):572-83. [View at Publisher] [DOI] [PMID] [Google Scholar]



**How to Cite:**

Kohanová D, Solgajová A, Bartoníčková D. Nurses´ reports on rationed nursing care in selected private hospitals: Preliminary results. *J Res Dev Nurs Midw*. 2024;21 (2):6-10.