

# The Impact of Sociodemographic Factors on the Rationing of Nursing Care in Polish Selected Polish Hospitals

## Abstract

**Introduction:** The rationalization of nursing care can be a direct consequence of the low employment rate or unfavorable working environment of nurses. Aim: The aim of the study was to learn about the factors influencing the rationing of nursing care.

**Methods:** The study group consisted of 209 nurses working in internal medicine departments. The study used the method of a diagnostic survey, a survey technique with the use of research tools: the BERNCA-R questionnaire and the PES-NWI questionnaire.

**Results:** The mean total BERNCA score for rationing nursing care was  $1.94 \pm 0.75$  on a scale from 0 to 4. A statistically significant relationship was demonstrated between the work environment and the rationing of nursing care. The results of the BERNCA-R scale correlated statistically significantly and positively with two subscales of the occupational burnout questionnaire: emotional exhaustion and depersonalization, and with all types of adverse events analyzed.

**Conclusions:** The higher the frequency of care rationing, the worse the assessment of working conditions by nurses, and, therefore, more frequent care rationing determined the more frequent occurrence of adverse events. The more frequent the care rationing, the more frequent adverse events occur.

**Keywords:** BERNCA-R • Rationing • Polish hospitals

## Introduction

Considering the growing problem of the shortage of nursing staff which has been observed in Poland, the determination of optimum standards for nursing staff scheduling in individual wards has become an urgent problem. Staff scheduling is one of the elements of work standardization. In Poland, this concept is understood as “an established size of the work group creating one team, which is assigned specified duties in performing necessary activities stipulated in the work regulations at an individual workplace or ward”. Therefore, nursing staff scheduling should be based on the determination of the number and occupational structure of nurses, indispensable for optimum performance of tasks within the given planning period. The number of staff necessary for performing individual jobs in specified technical, economic, and organizational conditions, with the consideration of demands posed by psychology, ergonomics, and work safety, may be determined by means of analytical and summary methods. Summary methods specify work standards by estimation, without former analysis of work methods, conditions, and allocation of work between smaller components [1]. Their characteristic feature is that they fix the actual state of the organization and do not mobilize changes and activities on behalf of improvement of the quality of care provided. Analytical methods, however, require an earlier performance of a critical analysis of methods and work conditions, their improvement, division of work into smaller elements, and only then a later application of research methods derived from the observation of the course of standardized work. The measurement techniques used within the analytical method are as follows: day-long observation of the workday, continuous observation, time scheduling, and snap-shot observation [2].

## Markova Nadya\*

Department of Medical and Environmental Nursing, Institute of Nursing and Midwifery, Faculty of Health Sciences, Jagiellonian University Medical College, Poland

\*Author for correspondence:

Nadyamark@wz.pl

**Received:** 03-Apr-2023, Manuscript No. OANC-23-92842; **Editor assigned:** 05-Apr-2023, PreQC No. OANC-23-92842 (PQ); **Reviewed:** 19-Apr-2023, QC No. OANC-23-92842; **Revised:** 24-Apr-2023, Manuscript No. OANC-23-92842 (R); **Published:** 28-Apr-2023; **DOI:** 10.37532/oanc.2023.6(2). 41-44

Nurse care rationing is defined as “holding back or failing to perform essential nursing tasks due to insufficient time or the level of professional skills of the staff”. Care rationalization can be a direct consequence of the low employment rate and unfavorable working environment of nurses. This phenomenon was originally investigated by M. Schubert et al. in the context of the Rationing of Nursing Care in Switzerland research project. Nursing practice covers a wide range of daily tasks assigned to patient care both in hospitals and in other forms of inpatient and home care. With limited human resources, insufficient to provide adequate care for patients, nurses are forced to ration their care, using their own clinical assessment to set priorities that are not always appropriate to their knowledge and skills [3]. Research shows that in many hospitals, the number of nurses is not optimal to provide adequate care for patients, while the lack of nursing staff is associated with negative patient outcomes. Studies conducted in several countries have shown a significant correlation between the working environment of nurses, their professional skills, and an increased number of adverse events or medical errors committed during a patient’s stay in hospital. Moreover, negative features of the work environment of nurses are significantly related to their dissatisfaction with work, occupational burnout, and injuries resulting in the course of the work of nursing staff as a result of adverse events. Despite evidence that increasing the number of nurses is a cost-effective intervention, current economic policies in European countries may make it difficult to achieve this goal for economic and political reasons in individual countries of the European Union. In some countries, despite the financial resources of healthcare units, nurses do not want to work in hospitals due to poor working conditions [4]. It has also been shown that in many cases when nurses are unable to perform all nursing and caring activities, they prioritize those activities that provide the best possible care using the available resources. The process of making decisions by nurses in situations of staff shortages whereby nursing and care procedures should be performed or omitted is rarely described in the literature on the subject. Therefore, in recent years, the need to examine the patient–nurse relationship has been demonstrated, paying attention to how nurses intellectually and

physically organize and provide the necessary nursing care, how to ration it, and how to use potential opportunities with little human and financial outlay. Over the past decade, attention has been paid to three areas related to the non-performance of activities in care: nursing neglect, nursing care omission, and implicit nursing care rationing. Despite the differences in defining these concepts, they try to understand which nursing activities are partially or completely overlooked when resource or nurse shortages prevent the provision of comprehensive, necessary care. Omitted care is, paradoxically, a promising argument to force changes in the employment standards of nursing staff. However, it should be noted that there is still little evidence to date that the employment of support staff in healthcare teams has reduced the risk of loss of care [5]. Therefore, undertaking research in the field of nursing care rationing, which included the environments of various hospitals within one region of Poland, where nursing care is diversified, appears to be correct and worth assessing. In Poland, the problem of rationing nursing care still requires investigation, especially comparisons within and between institutions. Therefore, the aim of the study was to determine the scope of nursing care rationing and its relationship with the work environment and sociodemographic factors.

## Materials and Method

The methods for working time measurement were used for the analysis of the nursing time. On the days when the evaluation of patients was performed according to the TISS28 scale, the analysis of the nursing time was carried out based on research techniques such as continuous observation and time scheduling of activities. The data for the study was collected by the first and the third authors, possessing Master’s degree in nursing, and university lecturers, who were not occupationally related to the facilities where the study was conducted. This allowed the maintenance of objectivity [6]. At the first stage of the study, continuous observations were carried out of 12-hour day and night duties, that is, the total of 252 hours of observation. During this time, 75 nursing activities were selected performed by Polish nurses in ICU. Simultaneously, the duration of these activities was determined by performing time schedule measurements. The second stage of the study was the verification

of the affiliation of individual activities to the criteria of the TISS-28 scale based on the guidelines by the National Health Insurance Agency. At the subsequent phase of the study, the duration was determined of all the activities qualified into the criteria of the TISS-28 and then the durations of activities not considered by this scale [7].

In the present study, the dependent variable was nursing care rationing. Nursing care rationing was measured using the BERNCA-R questionnaire originally developed and validated by the Nursing Rationing in Switzerland study, and this work uses a tool that is culturally and linguistically adapted to Polish conditions. Alpha correlations and correlations between Cronbach's items were used to analyze the internal consistency of the Polish BERNCA-R questionnaire. The mean BERNCA-R total score was 1.9 points on a 0–4 scale. Cronbach's alpha for the one-dimensional scale was 0.96. The mean correlation between the items was 0.4. The one-factor solution showed stable loads above 0.5 for almost all items of the Polish BERNCA-R questionnaire. The study with the use of the Polish BERNCA-R questionnaire showed that the tool is accurate and reliable in the study of care rationing in groups of Polish nurses. The BERNCA-R questionnaire contained 32 items listing the necessary nursing tasks, including daily nursing activities, emotional or psychosocial support [8], educational and rehabilitation care, safety conditions, and documentation. Using a 5-point Likert-type scale, respondents were asked to rate how often in the last seven working days they had not been able to complete one or all of the 32 tasks due to insufficient time, staff, and/or skills. To calculate the mean level of presumed nursing rationing, the scores for each nurse were averaged across all 32 items. The total score ranged from 0 to 60 and the mean from 0 to 3.0.

The Nurse's Professional Satisfaction questionnaire was built from three standardized tools: PES-NWI, MBI, and one question taken from the Medical Office Survey on Patient Safety developed by AHRQ. In order to determine the influence of working environment conditions on care rationing, the relationship between the variable of nursing care counseling and the characteristics of the working environment was measured by a question from the PES-NWI NWI

questionnaire. The independent variables were: occupational burnout of nursing staff, sociodemographic data, working environment conditions of nursing staff, and occurrence of adverse events [9].

## Discussion

The reasons for rationing nursing care include, among others: reductions in medical staff employment, increased patient need for care due to technological advances, more treatment options, and more informed users of health services. A patient who goes to a hospital has higher expectations and is aware that the institution should meet them, not only in terms of professional care, but also good services, e.g., safe hotel services. Such an approach, however, requires greater attention from specialists and at the same time a change in the awareness of system users that not only the drug is important in the recovery process, but also other aspects that determine health [10]. The COVID-19 pandemic situation made it very measurably indicative of what the type of care should be, and that even the most modern drug will not work if there is no one to administer it and there is no place where the patient can receive this drug. Nursing care rationing occurs during the care process at the intersection of the nurse–patient relationship. A constraint can be viewed as the end product of clinical evaluation and decision-making processes when resources are not sufficient to provide all necessary nursing care to all patients. In this case [11], the responsible nurse has no choice but to rationalize certain aspects of the necessary care. Scientific evidence indicates that rationing nursing care is strongly influenced by decisions made by nurses, using their clinical judgment and knowledge of how to allocate already limited resources. In a study conducted among nurses working in Croatia, it was also found that the problem of rationing care by nurses contributes to the low quality of care offered to patients. According to Zhao, the problem of rationing care can be eliminated through good cooperation in the nursing team [12].

## Conclusions

Care rationing occurs in all studied internal medicine departments; however, the level of this phenomenon varies significantly between the analyzed units. Care rationalization is correlated with the occurrence of adverse events among patients, with a lower

assessment of working conditions in the ward, and, moreover, with a higher risk of emotional exhaustion and depersonalization among nursing staff. In order to better understand the phenomenon, the research should be continued in departments with different specialties and extended to a larger area. However, the conducted research indicates that the phenomenon of nursing care rationing occurs. The management of the nursing teams should take steps to reduce the side effects of emotional exhaustion and depersonalization among the nursing staff.

### References

1. Furman CD, Rayner AV, Tobin EP. Pneumonia in older residents of long-term care facilities. *American Family Physician*. 70, 1495–1500(2004).
2. El-Solh AA, Niederman MS, Drinka P. Nursing home acquired pneumonia: a review of risk factors and therapeutic approaches. *Current Medical Research and Opinion*. 26, 2707–2714(2010).
3. Sarin J, Balasubramaniam R, Corcoran AM et al. Reducing the risk of aspiration pneumonia among elderly patients in long-term care facilities through oral health interventions. *Journal of the American Medical Directors Association. Current Medical Research and Opinion*. 9, 128–135(2008).
4. Marik PE, Kaplan D. Aspiration pneumonia and dysphagia in the elderly. 124, 328–336(2003).
5. Mintz AH, Kestle J, Rathbone MP et al. A randomized trial to assess the efficacy of surgery in addition to radiotherapy in patients with a single brain metastasis. *Cancer*.78, 1470–1476(1996).
6. Zimm S, Wampler GL, Stablein D et al. Intracerebral metastases in solid-tumor patients: natural history and results of treatment. *Cancer* .48, 384–394(1981).
7. Grunfeld E, Coyle D, Whelan T et al. Family caregiver burden: results of a longitudinal study of breast cancer patients and their principal caregivers. *CMAJ* .170, 1795–1801(2004).
8. Brouwers MC, Chambers A, Perry J et al. Neuro-oncology Disease Site Group. Can surveying practitioners about their practices help identify priority clinical practice guideline topics? *BMC Health Serv Res*. 3, 23-25(2003).
9. Lee ST, Lui TN, Chang CN et al. Prophylactic anticonvulsants for prevention of immediate and early postcraniotomy seizures. *Surg Neurol* .3, 361–364(1989).
10. Patrick DM, Marra F, Hutchinson J et al. Per capita antibiotic consumption: How does a North American jurisdiction compare with Europe? *Clin Infect. Dis*. 39, 11-17 (2004).
11. Heberer T. Occurrence, fate, and removal of pharmaceutical residues in the aquatic environment: A review of recent research data. *Toxicol Lett*. 131, 5-17 (2002).
12. Tavakoli M, Emadi Z. The Relationship between Health-Promoting Lifestyle, Mental Health, Coping Styles and Religious Orientation among Isfahan University Students. *J Res Behave Sci*. 13, 64-78(2015).