

## Original papers

### Factors influencing the rationing of nursing care in Romania

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### Abstract

Understanding the factors influencing the rationing of nursing care is crucial for any quality control intervention in healthcare services. Occupational factors such as workload, night shifts, management style and organization of work have a potential influence. There are few studies specifically designed to evaluate these factors in relation with nurses' work. In this study, we investigate several occupational factors influencing the quality of work in a sample of hospital nurses in order to identify the most important influencers of stress at work. The article describes the conceptual framework of the study, the population, the methods and the expected results. We also present a brief review of recent studies related to occupational risk factors and the perceived quality of care provided by Romanian nurse population.

**Keywords:** *nurses, workload, occupational stress, rationing of nursing care, quality of healthcare*

### Background

The role of the nurses inside the healthcare system continues to increase. The working conditions play an important role in assuring the quality of the medical care. The classical definition of the working condition has two components: the working environment and the organization of work. As far as working environment is concerned, the potential risk for infections and

exposure to radiation, various chemical products with irritant, toxic or allergic potential are currently reasonably mitigated if the universal precautions and the safety measures are respected. These occupational hazards are generally well managed in modern healthcare facilities and they rarely become an issue for the personnel. Regarding organizational factors, the risk management is more difficult to achieve: work load, lack of control of the work rhythm, frequent

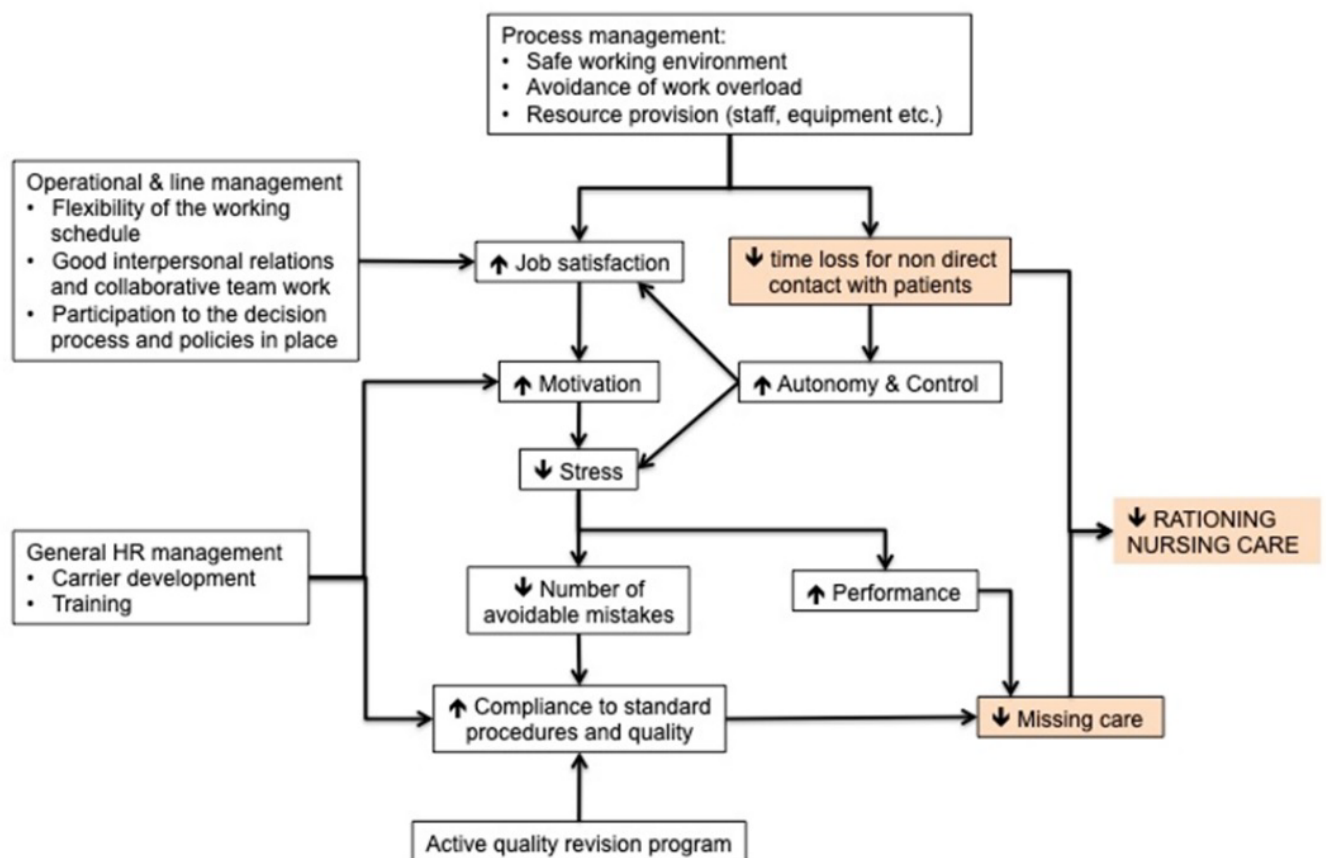
interruptions related to emergencies or to non-standard situations and working in shifts, are well known stressors that are impossible to avoid.

The term of rationing nursing care (RNC) have emerged from the literature and it explores the activity and the results of hospital nurses. In brief, the bedside rationing of care refers to the usage of clinical judgment by nurses in order to prioritize how they allocate their time and skills in delivering health care to patients due to time and staff constraints or to other organisational issues [1]. During the last two decades, the term has been used to cover either the achievements related to nurses' job description ('the missed care in nursing/unfinished care') [2,3], or the patients' perspective (indicators of service quality, including patient satisfaction) [4]. While the unfinished care is an indicator of the process, the patient satisfaction is a result indicator of the

medical care delivery system. The subject of RNC is the focus of an ongoing COST action funded by the European Union ([http://www.cost.eu/COST\\_Actions/ca/CA15208](http://www.cost.eu/COST_Actions/ca/CA15208)).

The objectives of this COST action are: a) to conceptualise the rationing nurse care, b) to identify evidence based interventions, c) to highlight the ethical issues and d) to improve the nursing curricula and practice in order to deal with this problem.

In order to achieve these objectives, the Romanian team of COST action 15208 has initiated a survey to identify the factors that may influence RNC in several Romanian hospitals. A conceptual framework to cover the main influencers of RNC was developed (Figure 1) and the main objective of this study is to identify the nurses' perspective on these relevant factors that affect their work.



Legend: HR= human resources

**Figure 1.** Factors influencing rationing nursing care

The results of this assessment will allow the description of the most important areas in order to improve medical care.

## Methods/Design

The study has a longitudinal design that involves Bucharest nurses from various hospitals. The methodology consists of a core of 18 items questionnaire in order to assess the two main aspects causing RNC: the unmet needs (a process assessment) of the nurses and the missing care (an outcome assessment). Measures of work load, staff, working organisation, team support and communication and management are assessed. The “unmet needs” is represented in the conceptual frame as the lack of safety, increased work load, lack of adequate resources and motivation. Time constraints and work overload are direct influencers of the RNC. The unmet needs related to the process management, line management and to general policy in human resources management increase directly or indirectly the time spent for other activities than the direct interaction with the patients. It is well documented that occupational stress reduces employee’s productivity and increases the chance of error [5].

One of the possible outcomes of the above unmet needs is the missing care. Therefore, as a result indicator, the missing care is better reflected in the achievement of the quality of care indicators and in patient satisfaction surveys. In order to identify the significant factors affecting the missing care, this study proposes to the responders that a supplementary list of 20 items described below under the “Quality of care” paragraph is critical in the quality of care provided in their department. These items together with the ones referring to the “Preferred measures to improve medical quality”, will contribute to an image of the missing care and of the directions required to reduce it.

RNC is almost impossible to avoid, particularly in emergency departments, where rigorous time frames are difficult to establish and the unexpected increase in workload is inevitably. However, maintaining the quality standard as a permanent reference for decisions in RNC contributes to the reduction of missing care. The degree of adherence depends on training, motivation and on-going adaptation and revision of the quality program [6]. All participants selected from a list the possible directions of improvement. This list describes management and organisational measures; if they are effective, these

measures increase job satisfaction, motivation and reduces the risk of burnout. Along with career development, stress reduction contributes to a low turnover, stability of the team and reduction of missing care.

In Romania, in the last years, several studies were conducted and published data regarding work needs [7] and the level of burnout [8] in nurses and patient satisfaction related to nurses’ activity [9]. All of these studies covered many aspects of the medical care service in Romania, but none of them was particularly focused on nurses or RNC. Even so, from these few published articles referring to nurses, all authors concluded that a more in depth questionnaire regarding nurses’ needs and participation to health services provision are necessary. The FIRANCARO study intends to contribute in filling this knowledge gap.

## Study population

Data was collected during September to November 2018. The information for recruitment was transmitted via occupational medicine providers and Nurses Association. The target population was represented by nurses aged 18-65 years old. The invitation was transmitted to nurses working in Bucharest hospitals from various wards and departments: internal medicine, surgery, palliative medicine, intensive care units and occupational medicine via occupational medicine services or using the nurses’ professional associations. All nurses that agreed to participate were contacted by research investigators from their hospital and received copies of the questionnaire. The participants filled the paper questionnaires in private. The questionnaires had only general demographic data such as gender, age category, type of education, department and seniority with no possibility to undercover the person that responded. In order for the questionnaires to remain completely anonymous, the filled papers were deposited by the participants in a ballot box.

## Study parameters

The study parameters were divided in 4 major categories: general indicators of job satisfaction, workload, perceived quality of care and preferred measures to improve quality.

### 1. General indicators of job satisfaction

Staff turnover has a direct relationship with employees’ job dissatisfaction and reflects a perception of poor working conditions and/or poor management. Therefore, the intention for a job change was asked.

If the answer was yes, a list of possible reasons in decision making was provided. The list of reasons for a job change were: financial, physical overload, psycho-emotional overload, working schedule, inappropriate working conditions, poor relationship with colleagues, poor relationship with superiors (chief nurse, head of department, hospital director), poor relationship with physicians. Checkboxes were available to select in case of multiple answers. Another sign of job dissatisfaction is absenteeism; the number of days for sick leave in the last 12 months was recorded.

## 2. Work load

Nursing workload is the product of the number of patients seen during one shift and the number and complexity of the nursing care provided. The number of patients attended during one shift was divided into 3 categories: less than 5, between 5 and 10 and more than 11. The following activities were recorded: drug administration, vital signs monitoring, aspects of health education relating to hygiene or nutrition, patient education promoting compliance with medication, psychological/emotional support, accompanying patients to investigations, recording data in patients' records, cleaning the patients. Also, the nursing process includes nurse-physician communication regarding patients' care and communication with the patients' family. These activities were ranked by frequency in 4 categories: several times a day, once a day, rarely and never.

## 3. Quality of care

The perceived quality of medical care provision ("Do you consider that patients are well-cared for in your department?") had a dichotomous question. If the respondent was confident in the quality of medical care provided (responded yes to this question), he/she was supposed to skip the supplementary questions. If the respondent answered no, he/she needed to answer the supplementary questions regarding the quality of care; these questions were divided in items concerning working organisation and patient profile. The answers were recorded on a Lickert scale ranging from significantly true (1) to not true (4).

To explore the organisational influencers of the quality of care, the following items were used: the sufficiency of the medical staff, the competence to perform medical procedures, the discipline in the implementation of the procedures, the number of emergencies, the unexpected increase of workload, the sufficiency of the support staff (technicians, secretaries, registering clerk etc.), the provision of

adequate medication and medical equipment. There were also questions related to team communication (physicians, nurses, psychologists, clerical staff, laboratory staff etc.), relationship with superiors (head of department, chief nurse) or interdepartmental. In order to improve RNC there is a need to assess how much time consuming are activities that are not directly related to patient care; therefore, the recording of patient's personal data, laboratory tests, investigations or medication requests, accompanying patients to investigations were investigated. It was also noted if trainings were provided on a regular basis in order to update knowledge and procedures as part of the quality control improvement. The characteristics of the patients admitted in these hospitals also influences the medical outcomes. The patient's profile was assessed using questions regarding the delay in seeking medical care after symptoms appeared, adherence to medical treatment and compliance to procedures during hospitalizations, health literacy and education and socio-economic status.

## 4. Preferred measures to improve the medical quality

Besides current situation evaluation, a special section of the questionnaire was dedicated to the improvement of the methods of performance that should be implemented in the hospital: types and frequency of training sessions, including exchange experience in other medical units, participation in conferences, congresses, re-evaluation of the number of assigned patients, shift work, initiating scheduled breaks or delegating part of the administrative activity to the support staff. The intent to improve medical skills and learn new procedures (such as ultrasound screening, probe or catheter mounting, respiratory tests, etc.) was also assessed. There were also questions about collaborative communication inside the department for obtaining better results of the medical care. The answer for these questions was dichotomous (yes/no).

## Analysis of the results

The analysis will evaluate each of the major items: general indicators of job satisfaction, work load, quality of care and the preferred measure to improve quality. Age, seniority and type of department will be considered as dimensions of the analysis. Distribution of each item by dimension will be assessed using chi test. Comparison between averages scores will be conducted with Anova one way analysis. Regression analysis using the items in the general indicators of job satisfaction as outcomes and work load as



mediating variables will be performed. Independent variables considered in this study are the number of patients allocated/nurse/shift and frequency of activities. Major outcomes are represented by the intention to leave the job and the number of days of sick leave. The percentage of positive responses for each item will be calculated regarding actual perception about the quality of care and preferred measures to improve quality. Comparison between groups defined by age, seniority and departments intends to find if there is any difference related to nurses' characteristics and/or type of activity.

## Discussions

Previous studies have identified the unmet needs as a major determinant of the RNC [10]. Using these general observations, some recent studies provided new highlights on the situation of the Romanian nurses. One recent publication [7], showed that nurses have significant different responses compared to physicians or other hospital staff regarding work needs and pressure imposed by superiors. Another study showed that nurses have lower job satisfaction when compared to physicians and higher prevalence of burnout syndrome, particularly if they work in the public sector [8]. None of these studies have specifically addressed the missed nursing care, although both articles mentioned the shortage of staff and sometimes even of medical supplies and equipment in hospitals.

In terms of patients' expectations, another study showed that, overall, only one third of the respondents were satisfied and very satisfied with the health care they received [9]. In a regression model that included the level of trust, waiting time, level of corruption, degree of satisfaction regarding general practitioners, specialized medical personnel and overall hospital care as determinants, the level of trust in nurses was 16%. This percentage was almost equal with the level of trust in physicians (18%) when patients' satisfaction was assessed. Interestingly, so was the difference regarding the perception of professionalism of the health personnel: for physicians, the main driver was medical counselling. The most important expectation in nurses was to respect the confidentiality of the medical procedure.

By combining the results of general indicators of job satisfaction and work load the study will provide data on the "unmet needs". The results of the quality of care assessment will indirectly reflect the missing care. The relationship between these two results will contribute to a better understanding of RNC in Romania.

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