ORIGINAL ARTICLE

IMPLICATIONS OF NURSES’ ACTIVITY IN THE DIMENSIONING OF NURSING STAFF IN THE PRIMARY HEALTH CARE

ABSTRACT
Objective: to describe the profile of nursing staff dimensioning in the primary health care. Method: this is a descriptive and exploratory study with a quantitative approach, performed in primary health care units. Data were tabulated in Microsoft Excel® 2010 spreadsheets, analyzed using descriptive statistics procedures and results presented in tables and figures. Results: the main problems pointed out in the accomplishment of the staff dimensioning were the employee turnover, or the permanent number of these employees and also the unit’s great demand. The study also shows the approximate time spent by professionals in performing nursing procedures. Conclusion: the results of this study contribute to the reflection of the work process developed by the nurses in the Health Units, in their managerial dimension. Descriptors: Nursing Personnel Downsizing; Personnel Downsizing; Primary Care; Nursing Staff; Nursing Human Resource.

RESUMO
Objetivo: descrever o perfil acerca do dimensionamento de pessoal de enfermagem na atenção primária à saúde. Método: estudo descritivo, exploratório, com abordagem quantitativa, realizado em unidades de atenção primária à saúde. Os dados foram tabulados em planilhas do programa Microsoft Excel® 2010, analisados utilizando procedimentos de estatística descritiva e os resultados apresentados em tabelas e figuras. Resultados: os principais problemas apontados na realização do dimensionamento de pessoal foram a rotatividade de funcionários ou o número permanente desses funcionários e também a grande demanda da unidade. O estudo também apresenta o tempo aproximado gasto pelos profissionais na realização de procedimentos de enfermagem. Conclusão: os resultados deste estudo contribuem para a reflexão do processo de trabalho desenvolvido pelos enfermeiros nas Unidades de Saúde, em sua dimensão gerencial. Descriptors: Dimensionamento de Pessoal; Ajuste de Pessoal; Atenção Básica; Recursos Humanos de Enfermagem.

RESUMEN
Objetivo: describir el perfil acerca del dimensionamiento del personal de enfermería en la atención primaria a la salud. Método: estudio descritivo, exploratorio con enfoque cuantitativo, realizado en unidades de atención primaria a la salud. Los datos fueron tabulados en planillas del programa Microsoft Excel® 2010, analizados utilizando procedimientos de estadística descriptiva y los resultados presentados en tablas y figuras. Resultados: los principales problemas apuntados en la realización del dimensionamiento de personal fueron la rotatividad de funcionarios, o el número permanente de esos funcionarios y también la gran demanda de la unidad. El estudio también presenta el tiempo aproximado gasto por los profesionales en la realización de procedimientos de enfermería. Conclusión: los resultados de este estudio contribuyen para la reflexión del proceso de trabajo desarrollado por los enfermeros en las Unidades de Salud, en su dimensión gerencial. Descriptores: Reducción de Personal; Ajuste Personal; Atención Primaria; Recursos Humanos de Enfermería.

1Nurse, Master degree in Nursing, Graduate Program in Nursing – Master degree and Doctorate, Medical School of Botucatu. Botucatu (SP), Brazil. E-mail: flaviazopi@hotmail.com; 2Nurse, Resident in Oncology, Multi-professional Residence in Oncology, AC Camargo Cancer Center. São Paulo (SP), Brazil. E-mail: pappy_borghi@hotmail.com; 3Nurse, Ph.D. Professor, Nursing Course, Department of Nursing, Medical School of Botucatu. Botucatu (SP), Brazil. E-mail: cjuiliani@fmb.unesp.br

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INTRODUCTION

Among the duties of the nurse, managing human resources is one of the tasks that requires not only management skills but also the understanding of the actual functioning and needs of the service. The curricular guidelines for nursing guide the general professional training, preparing him to make decisions, act in care and assistance, workforce, physical and material resources and information about the profession.

The nurse has the knowledge of collective health, clinical and administration, becoming his responsibility to develop them, reaching skills to discuss them, well supported by the Law of Professional Exercise.

Management is conceptualized as the art of thinking, deciding and acting to achieve results, but to be a manager, there is a need to develop the capacity in the art of thinking and judging to decide better. The mastery of the administrative techniques contributes to the execution of the work. However, the performance of the manager requires much more complex skills. In this sense, studies recommend that the profile of the manager should be formed in skills/competencies that guarantee a quality practice.

In the Nursing work process, management focuses on the organization of care, that is, the planning of actions the team develops the process with competence and quality under the leadership of the nurse whose purpose is to satisfy the needs of the patient.

As an administrator skill, the nurse needs to understand concepts of administration of health services, leadership, material and human resources, such as the provision of staff to develop the legal activities of the profession in the place where he operates. It is also necessary to understand the social division of labor, about human resources, composed of the whole nursing team, so there is competence in the area and adequate number of professionals to provide the desired service.

Even with the evident need to understand the managerial aspect of the team needed to provide the ideal care, there is a difficulty in presenting to the health professionals managers about the relation of the number of patients/team considering the uniqueness of the different care provided.

There is a shortage of research in this area since most studies based on the time spent in the nursing process are focused on in-hospital care. Insufficient numbers of nursing professionals have impaired the quality of care provided to patients, resulting in increased risk of adverse events. The excessive workload can lead to professional exhaustion and dissatisfaction, increasing absenteeism, compromising institutional goals. Also, the sickness of the nursing staff has consequences on the quality of care provided, at the reception and resolution of problems of the patients of the Unified Health System.

Absenteism is characterized by the absence of the professional in his work area. It is a problem for the nursing team, overloading the work of other professionals, demanding a fast pace. This overload impairs the health of the worker from the physical aspect even the spiritual. It is evident that one of the main causes of absenteeism may be the lack of some professionals in the team.

The dimensioning of nursing staff is the tool that can best assist the management nurse since this will indicate the quantity and quality of professionals adequate to meet the different nursing needs of the population assisted.

Through Resolution Nº 189/96, COFEN establishes parameters for the Dimensioning of Nursing Professionals in 1996, based on characteristics of the institution/company, the nursing service, and the patient. Previously to this year, there were no legal regulations for these aspects.

In 2004, COFEN improved Resolution 189/96, dealing with staff dimensioning and published Resolution 293/2004. Currently valid, the Resolution brings qualitative parameters and suggests a special treatment for some situations such as: increase in the number of hours to provide care according to complexity, being more significant for intensive care, considering the age of the professionals, being a variable that may increase the number of hours required for care; technical safety index, that is an increase in the number of employees per professional category to cover absences from service, with a target of not less than 15%; proportion of nurses with technicians and nursing assistants, at each level of assistance complexity.

The first barrier found in the Resolution is it considers health institutions and similar, mentioning primary health care and contains annexed recommendations of constant marine calculus, but it is perceived that it is not sufficient, since it does not consider the reality of assistance provided by each unit.

It is understood that the staffing dimension is of paramount importance in the nursing area, since there are difficulties and problems...
Implications of nurses’ activity in the dimensioning... 

Faced with this scenario and seeking to understand better the factors influencing the implementation of the staff dimensioning strategy, a scientific initiation study was developed on the implementation of the staff dimensioning in primary health care. This section focuses on the following questions: “What is the scope of the population assisted?”, “What are the functions performed by these professionals?”, “What is the time allocated to some of the most frequent nursing activities in these services?”

**OBJECTIVE**

- To describe the profile about nursing staff dimensioning in primary health care.
- To identify the population coverage of primary health care units, the functional profile of their nurses, the difficulties carrying out the staff dimensioning, and characterization of the estimated time for performing specific nursing procedures.

**METHOD**

This is an exploratory and descriptive study, with a quantitative approach, carried out in the Family Health Strategy Units and Basic Health Units of the city of Botucatu (SP), Brazil.

Botucatu assists 17 public basic health care units, being 7 Basic Health Unit (UBS) and 10 Family Health Units (USF).

The participants in this study were nurses. The questionnaire elaborated for this research was used for the data collection. This questionnaire contains data regarding the unit and the performance of nursing procedures in the unit. It also has personal information of the nurse and his professional practice of using or not the dimensioning of nursing staff in the health unit he works. It should be emphasized that the adherence of these nursing professionals to respond to the questionnaire depended on their acceptance in participating in the study.

The data were tabulated in Microsoft Excel® 2010 spreadsheets, analyzed using descriptive statistics procedures and the results were presented through tables and figures.

The research project was submitted to the analysis of the Research Ethics Committee (CEP) of the Botucatu Medical School of the Paulista State University “Júlio de Mesquita Filho”, in accordance with Resolution 466/12 of the National Health Council under the Protocol number 4181-2012 and the participants who accepted to participate in this study signed the Free and Informed Consent Term.

**RESULTS**

A total of 24 questionnaires were given to nurses from the 06/19/2012 to 01/01/2013, with acceptance of 100% participation of professionals invited to participate. There were two questionnaires from one unit, resulting in the effective participation of 22 professional nurses. The nurses from two basic units answered a single questionnaire in agreement, totaling 19 questionnaires in the study.

The concentration of inhabitants attended by the units showed a great variation, being 30,000 the largest and 4,000 the lowest concentration of inhabitants assisted by the health units participating in this study. This allows realizing that, even within the same model of care, some teams have more workload than others.

According to the questionnaires, most nurses perform both care and management functions, as can be seen in Figure 1.

![Figure 1. Function of the nurses of the Basic Health Units and Family Health Strategy Unit. Botucatu (SP), Brazil, 2012.](image-url)
The study also questioned employees about staff dimensioning methods. Two respondents reported that since they began their activities with their respective Unit, the number of staff of the nursing team had not changed, assuming there was no use of methods for scaling up the establishment plan. Two others mentioned the use of scale as a dimensioning method.

When commenting on the efficacy of the method used in their workplace, seven interviewees expressed some difficulties related to the staff dimension, expressed in Figure 2.


Figure 2. Difficulties related to the dimensioning of nursing staff. Botucatu (SP), Brasil, 2012.

When questioned about the suitability of the team for the unit’s demand, most nurses consider the number of employees to be partially adequate, and the minority considers that number inadequate.

In the comment of the same question, the nurses expressed difficulties related to: increased demand; overwork in the absence of an employee; the fact of always working with a minimum number of professionals; some sectors of the Unit with a lack of employees; unpredictable events, such as, leaves, courses, and the minority considers the number of employees to be inadequate.

Another important data for the management is to understand the time spent by the professionals in the exercise of their functions. The following table shows the approximate time to perform the nursing procedures.

The data in the table represent the estimated time (in minutes) spent to perform each nursing procedure informed by the nurses of the primary health care units.

Table 1. Time to perform nursing procedures in different units of basic health care. Botucatu (SP), Brasil, 2012.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Dressing time</th>
<th>Vaccine time</th>
<th>Pre-appointment</th>
<th>Post-appointment</th>
<th>Appointment time</th>
<th>Inhalation Time</th>
<th>Medication time</th>
<th>Groups time</th>
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</thead>
<tbody>
<tr>
<td>UBS - A</td>
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<td>UBS - B</td>
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<td>USF - A</td>
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<td>USF - D</td>
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<td>USF - E</td>
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<td>USF - F</td>
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<td>UBS - C</td>
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**DISCUSSION**

Studies show the importance of nurses being able to take initiatives, manage and administer the workforce as well as physical and material resources.18-9

The difference in the number of the population assisted by Family Health Strategy Unit and Basic Health Unit was evidenced in this study. This data is already predicted due to differences in the models used.

The Family Health Program units (PSF) have Family Health Teams (ESF) by the Ministry of Health norms and follow the precept of delimitation of the area with restricted patients. The Basic Health Units (UBS) have teams of physicians (clinical, pediatrician and obstetrician-gynecologist), nurses, dentists,
nursing assistants and technical support. There are also medical specialists, distributed irregularly. Demand is characterized by spontaneous and routed by other services. There is no restriction of patients, and the delimitation of the area refers only to actions of health surveillance.20

Considering the evidence from the study that most nurses perform the managerial or managerial and assistance functions, it is worth emphasizing that the managerial action should group efforts aimed at reaching proposed goals in the provision of nursing care. The use of a participatory management practice is a strategy of articulation in the search for the involvement of the team in the care process.5,21

The construction of the Nursing work scale, cited by the interviewed as the method of staff sizing used, is the competence of the nurse who articulates and integrates the process of designing and elaborating the scales, the number of employees is present. Thus, it is pointed out that although the scale of work is a tool of work organization, it is not sufficient for staffing.22

The concept of workload is widely used in the ergonomics and worker health area, seeking to understand the factors involved in the work and the impact on the worker.23

The identification of the workload has been considered as the key to the determination of nursing professionals. It is necessary to measure the time that the nursing uses to provide the assistance to verify this variable, being then determined by the identification of the interventions requested by the patients and the time used by the nursing team in their accomplishment.24

Studies aim to analyze the activities carried out by the nursing team, especially by nurses aimed at evaluating the work time developed by these professionals, identifying the workload and productivity of the team, with the intention of optimizing the nurses' time, Improving the quality of care and reducing the costs of the institution/unit, since the workload causes damage not only to the care provided but also to the health of the worker.25-6

We identified the importance of knowing the demand of the unit established by the workload of nursing professionals, based on the assistance of the time measurement instrument of the activities developed by these professionals.

CONCLUSION

The study gives us the photograph of the current assistance provided by the primary health care units in the city of Botucatu, by the number of units, and the housing coverage of each unit. Also, it shows the functional framework of the nurses of these units, the difficulties shown by them in the dimensioning of nursing staff and the time of the nursing procedures commonly performed in these health units.

The results of this study contribute to the reflection of the work process developed by the nurses in the Health Units, in their managerial dimension. The lack of an instrument to assist them in the provision of the staff causes qualitative dissatisfaction by most of the nurses interviewed.

We reinforce the role of articulator of nursing actions inherent to the nurse due to the attributions granted to this professional by the very characteristic of the work process peculiar to the profession.

FINANCING

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