ORIGINAL ARTICLE

THE DIMENSIONING OF THE NURSING STAFF IN AN INTENSIVE CARE UNIT

O DIMENSIONAMENTO DA EQUIPE DE ENFERMAGEM NUMA UNIDADE DE TERAPIA INTENSIVA

LA DIMENSIÓN DEL EQUIPO DE ENFERMERÍA EN LA UNIDAD DE CUIDADOS INTENSIVOS

Hérvora Santuzza Pereira Araújo¹, Ildone Forte de Morais², Cecília Nogueira Valença³, Marquiony Marques dos Santos⁴, Raimunda Medeiros Germano⁵

ABSTRACT

Objective: to discuss the nursing staff's project in the context of the Intensive Care Unit (ICU) of Hospital Regional do Seridó, Caicó-RN. **Method:** qualitative descriptive-exploratory research. 19 semi-structured interviews were performed with professional nursing staff working in the ICU. The data were analyzed according to thematic content analysis, which consists of: pre-analysis, material exploration and processing of results. The study was approved by the Ethics Committee in Research of Universidade do Estado do Rio Grande do Norte as Protocol 027/10 and CAAE 0026.0.428.000-10, according to Resolution 196/96. **Results:** it was showed that the quantity of graduated professionals in nursing staff is unsatisfactory for the development of the necessary assistance to the ICU. **Conclusion:** this study reflects that the dimensioning of the nursing staff should involve the participation of hospital managers for researching and raising the critical points of functioning of the service, through promoting teamwork. **Descriptors:** personnel downsizing; intensive care unit; nursing team.

RESUMO

Objective: discutir o dimensionamento da equipe de enfermagem no contexto da Unidade de Terapia Intensiva do Hospital Regional do Seridó (HRS) em Caicó- RN. **Método:** pesquisa descritivo-exploratória qualitativa. Foram realizadas 19 entrevistas semiestruturadas com profissionais da equipe de enfermagem que trabalham na UTI. As informações foram analisadas de acordo com a análise de conteúdo temática, que consiste em: pré-análise, exploração do material e tratamento dos resultados obtidos. A pesquisa foi aprovada pelo Comitê de Ética em Pesquisa da Universidade do Estado do Rio Grande do Norte conforme protocolo nº 027/10 e CAAE 0026.0.428.000-10, de acordo com a Resolução 196/96. **Resultados:** apontaram que o quantitativo dos profissionais de nível superior em enfermagem é insatisfatório para o desenvolvimento da assistência necessária para a UTI. **Conclusão:** o estudo reflete que o dimensionamento da equipe de enfermagem deve envolver a participação dos gestores do hospital, para pesquisar e levantar os pontos críticos do funcionamento do serviço, através da promoção do trabalho em equipe. **Descritores:** downsizing organizacional; unidades de terapia intensiva; equipe de enfermagem.

RESUMEN

Objetivo: discutir la dimensión del equipo de enfermería en el contexto de la Unidad de Cuidados Intensivos (UCI) del Hospital Regional de Seridó en Caico-RN. **Método:** investigación cualitativa descriptivo-exploratoria. Fueron realizadas 19 entrevistas semi-estructuradas con los profesionales del equipo de enfermería que trabajan en la UCI. Los datos fueron analizados según el análisis de contenido temático, que consiste en: pre-análisis, exploración de materiales y tratamiento de los resultados. El estudio fue aprobado por el Comité de Ética en Investigación de la Universidad del Estado de Rio Grande do Norte como Protocolo 027/10 y CAAE 0026.0.428.000-10, de acuerdo con la Resolución 196/96. **Resultados:** mostraron que el cuantitativo de profesionales de nivel superior en enfermería no es satisfactorio para el desarrollo de la asistencia necesaria a la UCI. **Conclusión:** este estudio refleja que la escala del equipo de enfermería debe incluir la participación de los administradores del hospital para investigar y levantar los puntos críticos de la funcionamiento del servicio, promoviendo el trabajo en equipo. **Descritores:** reducción de personal; unidades de terapia intensiva; grupo de enfermería.

¹Nurse. Bachelor and Teaching Graduated in Nursing at State University of Rio Grande do Norte/UERN. Caicó-RN, Brazil. Student in the Postgraduating course in Intensive Nursing at Potiguar University/UNP. Natal (RN), Brazil. E-mail: hervoraaraujo@gmail.com ; ²Nurse. Assistant Professor II in the Graduating Degree in Nursing at State University of Rio Grande do Norte/UERN. Caicó (RN), Brasil. E-mail: ildoneforte@yahoo.com.br ; ³Nurse. Assistant Professor II in the Graduating Degree in Nursing at State University of Rio Grande do Norte/UERN. Caicó (RN), Brasil. PhD Student in the Postgraduating Program in Nursing at Federal University of Rio Grande do Norte/UFRN. Natal-RN, Brasil. E-mail: cecilia_valenca@yahoo.com.br ; ⁴Student in Bachelor and Teaching Graduating degree in Nursing at State University of Rio Grande do Norte/UERN. Caicó-RN, Brasil. Student in the Scientific Novitiate at State University of Rio Grande do Norte/UERN . E-mail: marquiony@gmail.com ; ⁵Nurse. PhD in Education obtained from Unicamp. Professor of Nursing Department and PGENF-UFRN. Federal University of Rio Grande do Norte/UFRN. Natal (RN), Brazil. Email: rgermano@natal.digi.com.br

INTRODUCTION

The health services must be prepared to help the patient with quality, but it's essential that the professional staff is suitable for type of service offered, so that health users receive the answers for their essential needs.

Studies show that in the hospital environment, the quest for improving the quality of services has been implemented gradually through, too, the dimensioning of the nursing staff. Thus, the technical/scientific expertise is necessary for the development of activities whose require knowledge of the concepts of service management of health, leadership, human and material resources, ie, the forecasting and staffing for human resource development.¹⁻⁴

In the environment of the Intensive Care Unit (ICU), the appropriated contingency of professionals is an accuracy because the patient in this sector needs a greater number of hours of caring, when it is compared to other sectors of health care in the hospital. Thus, the interdisciplinary focus is essential in order that the patient has the therapeutic assistance in a skilled and efficient way. This situation is explained for the compromising of the patient's condition, who requires hours of continuous care throughout a multidisciplinary team, particularly the nursing one.⁵

The technological apparatus is becoming more prevalent and advanced, and the necessity for qualifications to operate the machines and tools also grows, ensuring more rigorous monitoring of the user's medical conditions. Patients who are in the ICU need an advanced diagnostic and therapeutic technologies, with specific equipment and qualified human resources.⁶

However, it is worth mentioning that, by regulation of the Ministry of Health, the policy of training and qualification of human resources for critical patient care or potentially critical should go beyond the traditional worry technical / technological, incorporating the conceptual and organizational frameworks of the Unique Health System (Sistema Único de Saúde - SUS).⁷

Thus, the technology required in the ICU is not limited to advanced equipment, but it also involves the number of nurses qualified to provide assistance to critical patients.

A technical and scientific attitude which adjusts the amount of nursing required to

work according to hours with the demands of caring for the patients is the dimesioning of nursing. It is a tool that enables nursing staff to understand the minimum number of professionals required to perform activities in the ICU in a reliable and human way, from basic and important information for the formulation of this quantitative.⁸

The appropriate dimensioning of nursing professionals provides a two-way process, whereby we have a more humane care for the individuals assisted, but it also prevents the health of service workers, avoiding an action overload of physical and mental strain. Thus, this dimensioning use methodologies and criteria which allow an adequate human resources to the real assistance needs, so that patients receive quality care that provides security.⁹

It is delicate to prove the necessities for human resources, because the nursing services are victims of traditional practices found in the majority of the hospitals, where the professionals' routine is justified in part to standard models that are passed decades in decades, faithfully following the routine service.¹⁰

However this statement, the challenge was released to understand the necessity of realization of nursing dimensioning, because this mean allows for technical and scientific terms to prove what we call a nursing staff deficit. By the issue presented, the nurse's inclusion in high complex procedures is required and crescent to the staff who work in the dynamic of intensive assistance.

Thus, the importance of this study is due to its contribution to the construction of knowledge by providing elements for a better planning of the nursing staff's actions in the ICU offered in the health services.

OBJECTIVE

- To discuss the nursing staff's dimensioning in the context of the Intensive Care Unit (ICU) of Hospital Regional Seridó (HRS) in Caicó-RN.

METHOD

It is a descriptive exploratory research with a qualitative approach which had for matherial analysis the nurse's speeches in the ICU of the Hospital Regional Seridó - HRS Caicó/RN, a reference center in the Eastern Seridó region.

The participants in the study were 19 professional of the nursing team (9 nurses and 10 nurse technicians). To preserve their

anonymity, we chose to identify them by their professional category and NFE.

The information was analyzed according to thematic content analysis, which consists of three stages: pre-analysis, material exploration and processing of results obtidos.¹¹ The research was accomplished in August in 2010. The data collection was conducted through individual and semi-structured interviews which were recorded and then transcribed and printed.

We organized the analysis in a topical category: the dimensioning in nursing according to the reading, interviewees' statements and the theoretical references searched, through articles from periodicals indexed in the databases of the Scientific Electronic Library Online (SciELO Brazil) and Nursing Database (Banco de Dados da Enfermagem - BDENF), and the ministry of health manuals.

The project was approved by the Ethics Committee in Researching of State University of Rio Grande do Norte (Comitê de Ética em Pesquisa da Universidade do Estado do Rio Grande do Norte - CEP / UERN) as Protocol Number 027/10 and CAEE. 0026.0.428.000-10. All respondents signed a consent and clear form.

RESULTS AND DISCUSSION

The sample was composed of 19 professionals of the nursing team, ie, 68% of professionals who work in the service of the institution's ICU. About the interviewees, 8% are among 25 and 35 years-old, 25% among 35 and 40 years-old and 67% among 40 and 60. The research revealed that nursing is formed by a significant part of women: 78% of the subjects are female and 22% male.

The interviewees' education level is presented in 8% with incomplete higher education, 25% with complete higher education and 67% with complete high school. The working time in the ICU points to 42% for those people who worked from 1 to 3 years and 58% for those ones who has 3 to 5 years of experience in this unit.

● The nursing team's dimensioning

The nursing staff is made up as an indissociable category of the working performed in the ICU, developing an intensive care necessary for each patient and helping to stabilize their health / disease. But, there are still inadequacies as for the quantitative distribution of these professionals in the health services.

Due to the caring complexity performed by nursing staff to the intensive patient, they have looked for developing standards of nursing staff's adequacy to surpass expectations of this audience.⁴ This inadequacy in number and quality of human resources for the nursing service has been a matter, because it can compromise the quality of care provided by the team.

The dimensioning appears as an indispensable tool for the minimum resources standardization required for the development of the activities made by the nursing staff in UTI.⁸ It arises in order to adapt quantitatively in the appropriate number of nursing professionals for the health service provider units, under the standpoint to support the client's necessities of assistance.¹²

Allied to this concept, the Federal Council of Nursing (COFEN) establishes and makes it accessible for all those parameters that represent the minimum technical standards, being references to guide the health institutions in planning, scheduling and prioritization of health to be developed.

This way of looking has been identified in the following reports, when informants were asked: What are the difficulties faced to accomplish the staff's work in the ICU?

Missing nurses every day, but the nurses is in the hospital. In the unit, they come to give support. The right thing would be if the nurse stayed with us, working together, the full staff. [...] It should have doctors and nurses 24 hours here and create the rules and routines that do not exist here (TEC 1).

Actually, there are many doctors and nurses. What I regret very often, they are not entirely with the patient as it should be, sometimes it's not their fault, it is the lack of doctors and nurses in the direct sector, but they have to take care of all the hospital. In the case of the ICU, they should stay all the time with us ... It is hard (TEC 2).

Missing the doctors and nurses' presence of doctors, they are not always in the ICU, they come for a moment and then leave. We spent most of the time alone with the patient. In a higher frequency, we have to run and call to the emergency sector looking for the doctor (TEC 3).

The insufficient number of nurses has led these professionals to help several units at the same time and develop multiple functions. Hindering the successful establishment with clients and other staff members, especially nursing.⁸

The nursing staff's adequacy present in the

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ICU of the Regional Hospital should be reassessed, considering the real needs of the service so that the work process is done by the professionals, providing quality care to the user. In face of this question, the interviewees' conceptions led us to the reflection about the nursing staff's dimensioning, particularly nurses, because this reality can be partially understood because of the missing of the Patient Classification System (PCS) which shall provide data about the nursing workload required per patient in the unit in 24 hours, according to the type of assistance.

In order to reflect the data showed by the interviewees in conjunction with the theoretical, we chose to calculate the nursing staff to the ICU, noting the decisions of GM/MS No. 3.432/99¹³ establishing criteria for staff's dimensioning of this unit.

Thus, the use of Resolution Number 293/04 COFEN became indispensable, because on its Article 4 is shown that, for purposes of calculating, the hours of nursing care per bed, within 24 hours: 17.9 hours of nursing are needed, per customer in intensive care, so that the hours of care are already included.¹⁴

Making calculations and having as parameter the ICU of the HRS, we have the value of 18 professionals, plus this value, we consider the technical safety index (STI). Moreover, for the distribution of these professionals in the ICU we used COFEN Resolution No. 293/200413 in its Article 5, that for intensive care, 52% to 56% must be nurses and the others nursing technicians. Thus, nursing staff can have 10 nurses and 8 nursing technicians.

The study as the effective and functional working environment of the nursing staff in the ICU only the technical team, whereas nurses are responsible for all hospital departments. In this sense, the team's distribution shown differs from the calculations recommended by COFEN.

The deficiency on the distribution of nursing staff in the ICU interferes with worker productivity, related to working conditions and worker's health. Besides these, it is requiring a nurse's standard of excellence in the execution of the work allied to the lived clinical conditions, which are often stressful.¹⁵

Thus, the nursing professional of higher education appears with excess of responsibilities in various sectors of the HRS, causing the lack of permanent nurses for each sector, overloading and breaking the nursing work:

We have to work with unfavorable conditions, since we sometimes have to assist the hospital as a whole, that ends up undermining our work. We really are unable to give an intensive care, and I regret that very much (NUR 1).

There are two nurses for the whole hospital, there isn't an exclusive nurser. We have doctors, and they must stay all the time in the ICU, but there are some of them that come out, go to the PSF [Family Health Program - Programa de Saúde da Família]. As far as possible they give assistance when we need we call them. We have a physiotherapist, a psychologist who is the whole hospital, Social Service too, but when you need it, They always give assistance (NUR 2).

We feel a burden in relation to nursing care in the ICU, we are one, in the maximum two, to assist the whole hospital. It is practically impossible we make a comprehensive care for this type of patient. The reality lived for ur is that, we must assist in this way, with what we have and with what is given to us (NUR 3).

The reports reveal that the work performed by higher education professionals become fragmented because their attention is for the whole hospital, deconstructing the idea of a responsible professional for each sector, therefore escaping the prerogative taken to intensive care.

The care of the critical ill patient requires for the nursing staff knowledge multiplicity and versatility in procedure. In this context, which there are all critical ill patients, technological complexity and necessity for a racional using that led to the better service, at the appropriate time, efficiently and effectively, the nursing team is faced of a great responsibility.

This Nursing's working overload occurs because of the establishment of an insufficient human resources to provide, in an adjusted way, the care to the clients, since this feature influences directly the quality of care provided for this category.¹⁶ This quantitative and qualitative imbalance is partially justified for the unreliability in the realization of nursing's dimensioning calculations, so the professionals with college degree are responsible for the simultaneous service in more than one nursing sector, so, in the end, they are overloaded.

This reality reveals that the nursing professionals' quatification in Intensive Care Units should be examined, especially with regard to the workload associated with the caring process.¹⁷ In this sense, the work done

by the Nursing of HRS needs primarily to act more actively, making the manager realize which is impossible to effect wholly an assistance for the patient of ICU.

The understanding of this reality is only possible when we look at the more experiential way and the average time spent in nursing care to execute basic procedures related to the patient's assistance.¹⁸ Thus, knowing the local reality, observing the nursing staff's succession of days, through the assistance provided to the patient, helps to raise awareness of those hospital management responsables. Making this practical an initiative for solving the problems found.

This statement can be enhanced through believing that the nursing work especially should be understood in a strategic way in line with all health team that are the workers's scope from the ICU.¹⁹ It is also stated that new researches of this type are carried out in other sectors of the HRS, so that the current administration along with the nursing staff fight for better working conditions and assistance to clients.

CONCLUSION

In summary, the number of graduated professional nursing is unsatisfactory for the development of the necessary assistance to the ICU. This initial failure numerical results gradually in the fragmentation of care done for this category. This form of organization and distribution of work requires to the nurses difficulties and restrictions in order to establish more consistent links to the work that is applied.

Nurses have to assist at the same time several units and develop multiple functions. Therefore, to understand and analyze the nursing dimensioning in the ICU of HRS must, somehow, involve the participation of all nursing staff. This action would take place by promoting teamwork, proposing a change agenda that can benefit users and health professionals, facilitating the comprehension of the current model.

Thus, it is believed that changes are necessary, but they must be democratic, agreed among different actors. So caution and criticism about reality must be grounded in the historical process of the construction of ICU in HRS as well as its insertion in Caicó-RN.

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Corresponding Address

Cecília Nogueira Valença
Universidade do Estado do Rio Grande do
Norte/Campus Caicó
Rua André Sales, 667 – Paulo XI
CEP: 59300-000 – Caicó (RN), Brazil