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ORIGINAL ARTICLE

STRESS OF NURSES IN THE URGENCY AND EMERGENCY ROOM

ESTRESSE DO ENFERMEIRO NO SETOR DE URGÊNCIA E EMERGÊNCIA

ESTRÉS DEL ENFERMERO EN EL SECTOR DE URGENCIA Y EMERGENCIA

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ABSTRACT

Objective: to describe the level of stress of nurses working in the emergency room. ***Method:*** descriptive study with quantitative approach performed with 10 nurses in a medium-size hospital in Apodi-RN based on the application of the Bianchi sclae. Data were grouped in tables and figures and analyzed using descriptive statistics. The research project was approved by the Research Ethics Committee, CAAE 35110814.1.0000.5296. ***Results:*** the mean score of stress of nurses was 4.12, characterizing a médium-level of stress. The domain D (nursing care provided to patients) was the most stressful, with 5.08, with providing care in emergencial situations in the unit as the most stressful activity. ***Conclusion:*** it is possible to seek for measures that minimize the levels of stress and stressors related to the work of nurses, providing improved quality of life of these and and quality of care provided to patients. ***Descriptors:*** Nursing; Professional Burnout; Emergency Nursing; Worker's Health.

RESUMO

***Objetivo*:** descrever o nível de estresse dos enfermeiros que trabalham no setor de urgência e emergência. ***Método*:** estudo descritivo, com abordagem quantitativa, realizado com 10 enfermeiros de um hospital de médio porte de Apodi-RN a partir da aplicação da Escala Bianchi. Os dados foram agrupados em tabelas e figuras e analisados pela estatística descritiva. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE 35110814.1.0000.5296. ***Resultados*:** o escore médio de estresse dos enfermeiros foi 4,12, caracterizado como médio nível. O domínio D (assistência de enfermagem prestada ao paciente) foi o mais estressante, com 5,08, tendo como atividade mais estressante a de atender às emergências da unidade. ***Conclusão*:** pode-se buscar medidas para minimizar os níveis e fatores estressantes relacionados ao trabalho do enfermeiro, proporcionando melhora na qualidade de vida destes e na assistência aos pacientes. ***Descritores*:** Enfermagem; Esgotamento Profissional; Enfermagem em Emergência; Saúde do Trabalhador.

RESUMEN

***Objetivo*:** describir el nivel de estrés de los enfermeros que trabajan en el sector de urgencia y emergencia. ***Método*:** estudio descriptivo, con enfoque cuantitativo, realizado con 10 enfermeros de un hospital de medio porte de Apodi-RN a partir de la aplicación de la Escala Bianchi. Los datos fueron agrupados en tablas y figuras y analizados por la estadística descriptiva. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, CAAE 35110814.1.0000.5296. ***Resultados*:** la puntuación media de estrés de los enfermeros fue 4,12, caracterizado como medio nivel. El dominio D (asistencia de enfermería prestada al paciente) fue el más estresante, con 5,08, teniendo como actividad más estresante la de atender a las emergencias de la unidad. ***Conclusión*:** se puede buscar medidas para minimizar los niveles y factores estresantes relacionados al trabajo del enfermero, proporcionando mejoría en la calidad de vida de estos y en la asistencia a los pacientes. ***Descriptores*:** Enfermería; Agotamiento Profesional; Enfermería en Emergencia; Salud del Trabajador.

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INTRODUCTION

Stress arises from the perception of stimuli that cause emotional inquietation and disruption of homeostasis, thus resulting in adaptive processes characterized by psychological and physiological disorders.[1]

Physiologically, stress encompasses hormonal mechanisms that begin with stimulation of the neurohypophysis in the brain and of numerous events which involve adrenal glands, which act in the stomach, heart, lymphatic system and especially instigating the immune system, which becomes jeopardized and decreases the levels of endorphin and serotonin, which are responsible for raising the self-esteem of human being.[2]

Stress at the workplace is the result of a set of phenomena that arise in the body and may affect the health, presenting different responses depending on the individual.[1] In the context of health services, nursing professionals are daily subjected to stressful situations due to the contact with patients and due to the work developed and/or by typical aspects of the work environment and its organization. Therefore, this professional field is particularly exposed to high levels of pressure and stress.[3]

Nursing professionals, especially those working in urgency and emergency services, constantly experience stress at work because it is an area that requires full control from the professional, besides the fact that the patient and family are in extreme vulnerability, contributing to increase the levels of stress, and consequently, physical and mental exhaustion of the nurse.[4]

Excessive stress causes a reaction of occupational burnout to the professional in its environment. This is manifested by sensations of emotional and physical exhaustion associated with a sense of frustration and failure also known as Burnout syndrome.[5]

Burnout syndrome is a complex phenomenon that affects aspects of the well-being of healthcare workers and the quality of their servisse. It is composed by the dimensions of emotional exhaustion, characterized as an individual response to stress such as feeling of exhaustion; depersonalization, referring to the negative reaction to others and work; and decreased job satisfaction, perceived as a negative evaluation of own achievements in work.[5]

In this context, the work of nurses at hospital emergency and urgency rooms, as a space with high turnover of patients, requires speed and efficiency in carrying out procedures because the keeping individuals alive depends on this. Such a work calls for professionals not only trained but also adept to deal with the population in a calm and safe manner, and it is from this that the need to keep stress levels always controlled comes.

The emergency and urgency room is characterized by the large number of patients at high risk of death, random events, long working hours, demands for agility, demands from family members and a short time to provide an assistence of excelente quality.[1]

Corroborating abovementioned statements, other authors argument that nursing is considered a profession that suffers the full impact and immediate and concentrated stress that comes from taking constant care of sick people, unpredictable situations, execution of tasks, sometimes repulsive and distressing, which is common in emergencial units.[4]

Given the above, the following question arises: What is the level of stress that nurses working in emergency rooms go through? This study aims to describe the level of stress of nurses working in the emergency room.

METHODOLOGY

Descriptive study with a quantitative approach performed in the emergency room of a medium-size regional hospital, located in the municipality of Apodi-RN. The study population consists of 12 nurses working in the unit under study, and the sample is composed by 10 nurses and established based on inclusion and exclusion criteria.

The hospital consists of 210 professionals, serves the municipalities of Apodi, Felipe Guerra, Severiano Melo, Rodolfo Fernandes and some cities of Ceará, with capacity for 52 beds and a daily demand of 200 patients, in average. The hospital offers emergency and urgency procedures, surgical clinic, pediatrics, outpatient, laboratory tests and X-rays. The physical structure is divided into three wings; the first wing has administrative offices, reception, emergency room, male and female resting rooms, offices and x-ray room; the second wing has the male and female medical wards, pharmacy, nutrition services, laundry and warehouse; and the third wing has the operating room, surgical nursing ward, pediatric clinic, transfusion agency and the clinical laboratory.

As inclusion criteria, it was decided to include nurses who worked in the emergency room, working in this service for more than two years and who accepted to participate.

Nurses unable to complete the survey and possessing temporary work contracts were excluded.

Data collection was carried out through application of the Bianchi Stress Scale (BSS), a questionnaire developed and validated by Bianchi.[6] This consists of two parts, the first brings socio-occupational data aimed at characterization of the population and the second part consists of stressors in nursing work. The BSS contains 51 Likert-type items that range from 1 (one) to 7 (seven), with the value 1 (one) corresponding to low stress level, 4 (four) corresponding to medium stress level, and 7 (seven), to high stress level. The value 0 (zero) was reserved to cases when the nurse does not perform the activity addressed.

The 51 items are divided into six domains, namely: A- relationship with other units and supervisors; B- activities related to the adequate functioning of the unit; C- activities related to personnel administration; D- nursing care provided to patients; E- coordination of activities of the unit; and F- working conditions for the performance of nursing activities.[6]

The instrument was applied in the work environment from August to November 2014. Excel 2003 software was used for processing data collected. We emphasize that the collection was initiated only after approval by the Research Ethics Committee of University Potiguar – UNP, with the opinion number 859.611, CAAE: 35110814.1.0000.5296. Ethical aspects governing research with human beings were strictly respected, as recommended by Resolution No. 466 of December 12, 2012 of the National Health Council, which governs the standards for research involving human beings. All participants agreed to participate and signed the informed consent form.

After the analytical reading of selected research studies and after filling the instrument prepared for this purpose, data were grouped in tables and figures and analyzed by descriptive statistics.

RESULTS

Study participants were surveyed regarding socio-occupational characteristics and the level of stress related to work in the emergency room according to responses to BSS. Later, the comparison of average stress of the most stressful domain with socio-occupational characteristics were described. The data is presented in Table 1.

Table 1. Socio-occupational characteristics of nurses in an emergency room located in a medium-sized hospital (n = 10). Apodi, Rio Grande do Norte, Brazil, 2014.

Variables	n	%
Sex		
Male	3	30.0
Female	7	70.0
Age group (years)		
20-30	3	30.0
31-40	3	30.0
41-50	2	20.0
>50	2	20.0
Working time (years)		
3-10	7	70.0
11-20	2	20.0
21-30	1	10.0
Time as graduated professional (years)		
2-5	1	10.0
6-10	6	60.0
11-15	2	20.0
More than 15	1	10.0
Postgraduation		
Especialization	8	80.0
Master	-	-
Doctorate	-	-
None	2	20.0

According to Table 1, there was a predominance of females (70%), most respondents were aged between 20 and 40 years (60%) with 3 to 10 years of working time (70%) and 6-10 years of time after completion of academic training (60%) and with at least one postgraduate degree (80%).

The study participants were surveyed about the level of stress according to answers to

BSS, and grouped by total score, as outlined in Figure 1.

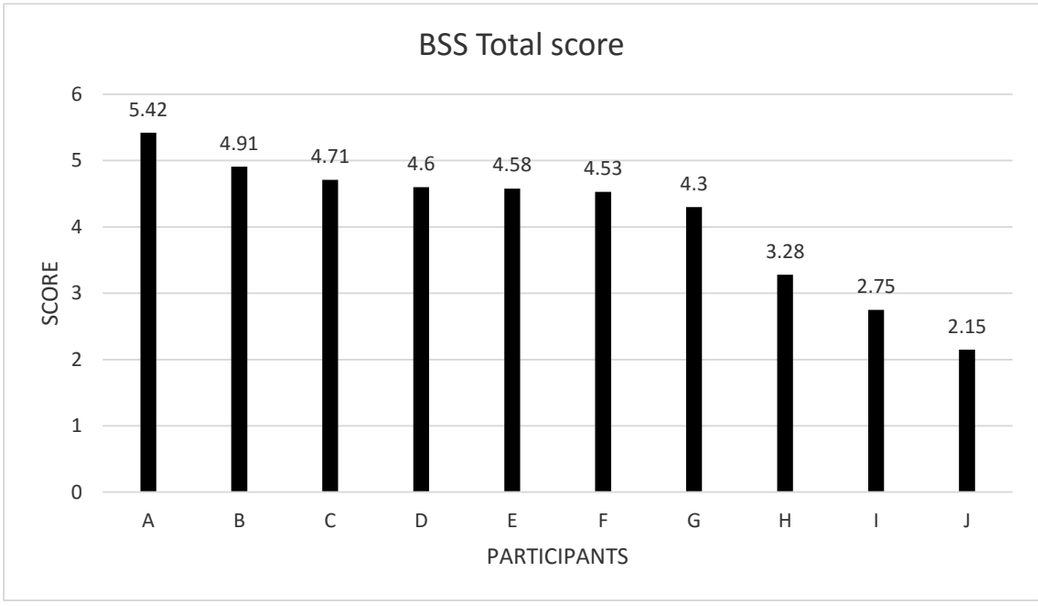

Figure 1. Demonstration of the total score of participants based on Bianchi Stress Scale.

According to the classification of level of stress proposed by BSS, three participants were classified with low level of stress (total score between 2.15 and 3.28), and seven with medium level of stress (total score of 4.3 the 5.42), as shown in figure 1.

In the sequence, the stress level in each domain proposed by the scale was analyzed, dhowed in groups of total score, as outlined in Figure 2.

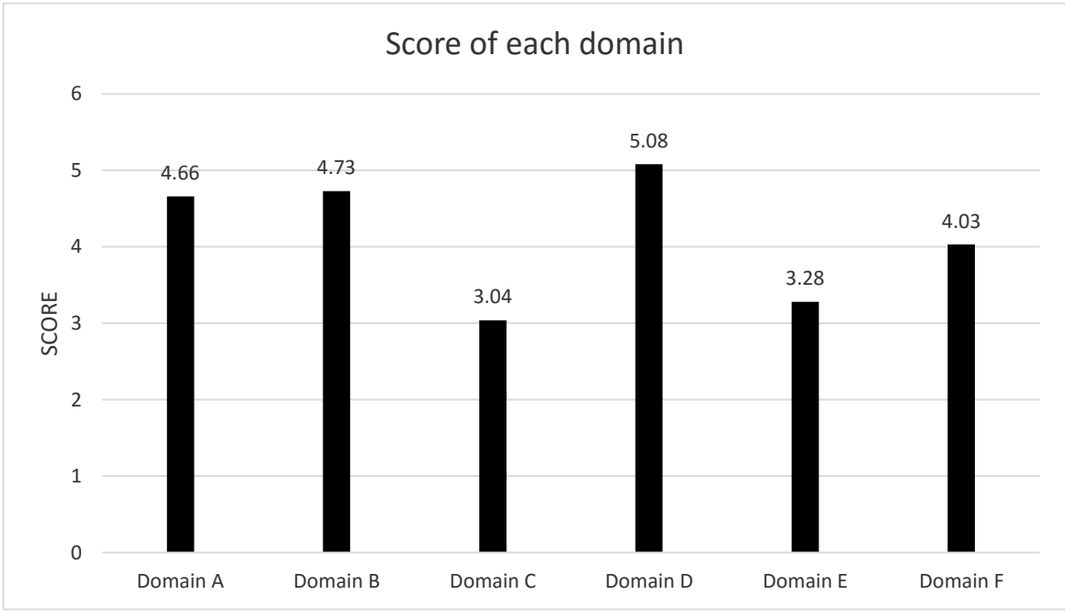

Figure 2. Demonstration of score for each domain according to Bianchi Stress Scale.

BSS domains grouped in descending order resulted in: Nursing care provided to patients (domain D. 5.08); Activities related to the adequate functioning of the unit (domain B. 4.73); Relationship with other units and supervisors (domain A. 4.66); Working conditions for the performance of nursing activities (domain F. 4.03); Coordination of activities of the unit (domain E. 3.28); Activities related to personnel administration (domain C. 3.04). This points to the domain D as the one with higher level of stress for nurses.

Because the domain D was the one that showed the highest level of stress for nurses, it was decided that this should be analyzed separately, as shown in Figure 3.

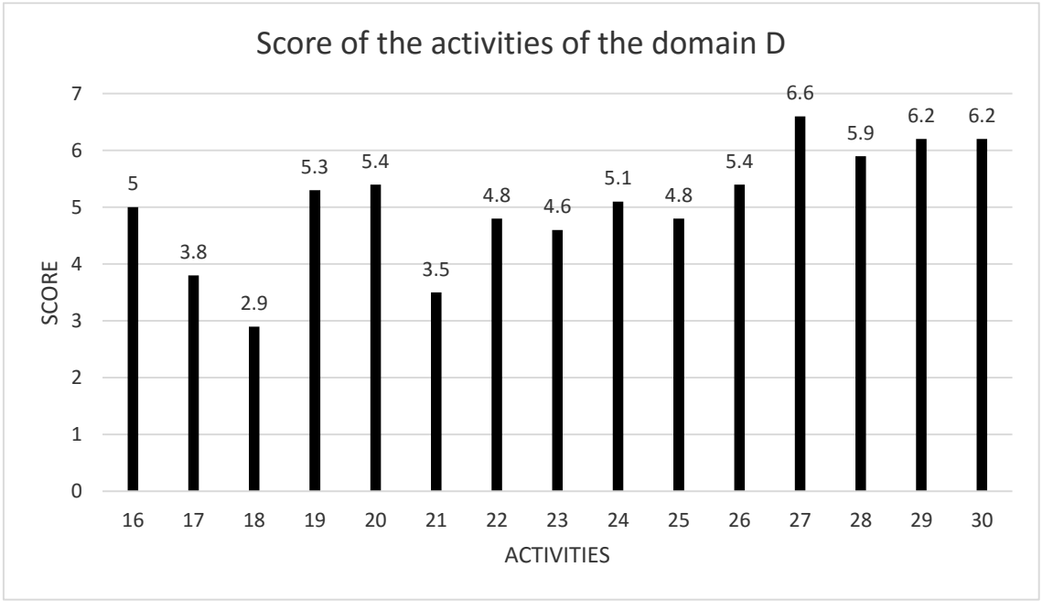

Figure 3. Demonstration of the scores of the activities of domain D according to Bianchi Stress Scale.

The most stressful activity in the domain D was the 27 (provide care in emergencies at the unit),which obtained the highest score (6.6) according to BSS.

After the overview of socio-occupational characteristics, the stress level of nurses and each domain and the activities that stood out within domains that caused the highest level of stress in nurses, a comparison between the level of stress of the domain considered more stressful with the socio-occupational characteristics was done, as shown in Table 2.

Table 2. Comparison of stress level in the domain D according to socio-occupational characteristics.

Variables	Domain D		
	n	%	$\overline{X}$
Sex			
Male	03	30.0	4.53
Female	07	70.0	5.27
Age group (years)			
20 - 30	03	30.0	4.55
31 - 40	03	30.0	4.62
41 - 50	02	20.0	6.09
More than 50	02	20.0	5.58
Postgraduation			
Yes	08	80.0	5.46
No	02	20.0	3.58
Time as graduated professional (years)			
2 - 5	04	40.0	5.03
6 - 10	03	30.0	5.77
6 - 10	03	30.0	5.77
11 - 15	01	10.0	2.26
More than 15	02	20.0	5.58

The Table 2 shows that the domain D (Nursing care provided to the patient) has higher average stress in women (5.27) than in men (4.53). Older professionals had higher average stress, that is, those aged 41 to 50 years old (6.09) and over 50 years old (5.58). Those who have postgraduation (5.46) had higher average stress than those who did not have (3.58). Nurses who completed graduation for 6-10 years (5.77) had the highest average stress.

DISCUSSION

The mean score of stress of investigated nurses was 4.12, characterized according to the assessment scale as medium stress level; the mean score of the most stressful domain - domain D, nursing care provided to patients - was 5.08, with providing care in emergencies at the unit considered the most stressful activity.

The present results corroborate the qualitative data obtained in another study developed in the same hospital[7] that shows the association of stress with the following triggering factors: lack of material, absence of the medical practitioner in the emergency, disorganization in the unit and equipment not ready-to-use in case of emergency, insufficient number of nursing professionals,

and lack of an integrated work that make human relations difficult.

As for stress scores, a study in an Intensive Care Unit using Stressors Scale and Scale of symptoms revealed 50% of nurses with scores between 1.11 and 1.97, which denote medium stress, and the domains with higher scores were critical situations (2.49 ± 0.52), followed by work load (2.33 ± 0.61)[8], result equivalent to that found on the present searched Hospital.

Nursing is a profession practiced by a large number of women. In this study, there was a percentage of 70% female. Thus, we observed that female supremacy is what mostly distinguishes nursing from other professions and this strongly influences the definitions of professional and interpersonal interactions on the workplace.[9]

These data are close to the results found in a study conducted in 2009 after the implementation of BSS with nurses working in emergency rooms in 5 regions of the country where 90.9% of participants were women with stress level considered "medium "according to the scale. The results differ, however, when we look at the higher stress level domain; this higher score (3.94) was for the Area F (Working conditions for the performance of nursing activities) in the cited study.[4] Such differences may be related to specific working environments in question and to the size of the hospitals surveyed.

It is known that "stress in women occurs more frequently by the overload of tasks typical of the female world, for double or triple workday"[10:170]. The factor "female sex" allied to adulthood, marital status and the presence and responsibility with children act as overload indicators, the accumulation of functions intra-family corroborating increased stress índices in this population.[10]

Nursing work is significant not only because it is a profession performed predominantly by women, but for the work that is done day to day. Nurses carry out their duties as professionals and still manage their lives as mothers and wives. With this comes the concern with these professionals, who develop multiple activities.[9]

Another study also pointed out that women present higher scores of emotional exhaustion, when analyzing the variable related to marital status and the fact of having children or not. The marriage or stable partner situation and the fact of having children carry a lower propensity to burnout.[11]

Among the presente study participants, most have between six and ten years of training completion, corresponding to 60%. It is known that when the working time is extended, the professional may end up adapting to the site, generating fewer signs of stress, or the opposite may also occur, that is, the process of trivialization of work.[12]

It has been noted that higher wear is more common among those with less time in the institution, also pointing out that job dissatisfaction and low social support are associated with the high wear in work.[13]

As for academic degree, it was found that 80% have especialization in the area, which could facilitate interaction with their work process. Professionals need to constantly specialize, keep up to date, to acquire more and more technical and scientific knowledge.

Nurses who work in emergency rooms need to have scientific, technical and practical knowledge to thereby make quick and concrete decisions, transmiting security to the whole team and especially reducing the risks that threaten the life of the patient.[14]

Urgency and emergency nurses are key elements in the work process of this sector. They carry out urget healthcare and effectively act on the unit's management, suggesting a high responsibility on the part of these professionals in an effort to attend to the needs of patients.[15]

Nursing professionals are daily subjected to stressful situations, either by proximity to the patients and the tasks performed, and/or by the aspects of the work environment itself and its organization. Thus, this professional area is particularly exposed to high levels of pressure and stress.[3]

It is necessary, therefore, to discuss the working conditions to which professionals of emergency care units are exposed, aiming at actions to prevent or minimize the problems. Among the proposed measures, there are the individual strategies of behavioral changes and especially organizational or collective changes, necessary to control stress and provide greater satisfaction at the work environment.[9,16]

Works of this magnitude allow for reflections about the nurse' working process in order to minimize stress in the workplace and a better relationship in the clinical care provided to the patient.

CONCLUSION

The study evaluated the stress level of nurses working in the emergency care sector, which is defined, generally, as mid-level stress. The individual assessment of each domain revealed the domain D (nursing care

provided to patients) as the highest level of stress averaging 5.08. Thus, the activities that cause higher level of stress are the number 27 (providing care in emergencies at the unit) averaging 6.6, activity 29 (facing the patient's death) averaging 6.2, and the activity 30 (give orientation to family members of critically ill patients) averaging 6.2, which are all found in the area D.

These results highlight the importance of scientific literature in relation to the topic discussed, since based on the results, one can seek measures to help to minimize stress levels and stressors related to the work of nurses, providing an improved quality of life and of assistance provided to patients.

Considering the relevance of this issue, we suggest that studies should seek adaptations in BSS in order to include elements of social life of workers such as religion, family relations and culture, once that many stressors may come from these spaces and interfere with the performance in the workplace. It is suggested also that the scale can be applied to other sectors of the hospital where there is nursing work in order to survey a situational diagnosis of stress of these professionals. From this point on, action strategies aiming to minimize the stressors levels can be then listed.

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