



ORIGINAL ARTICLE

STRESS IN NURSING PROFESSIONALS WORKING AT A SPECIALIZED HOSPITAL ESTRESSE EM PROFISSIONAIS DE ENFERMAGEM ATUANTES EM UM HOSPITAL ESPECIALIZADO

ESTRÉS EN LOS PROFESIONALES DE ENFERMERÍA ACTIVOS EN UN HOSPITAL ESPECIALIZADO

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ABSTRACT

Objective: to identify the level of stress in nursing professionals working at a specialized hospital. **Method:** randomized study, composed by 86 nursing professionals. Data collection occurred in November 2014, through two instruments: Inventory of Stress Symptoms for Adults and Social-demographic Questionnaire. Statistical analysis was performed using Fisher's exact test, Mann-Whitney and Chi-square, all with 5% significance level. **Results:** there was predominance of nursing technicians (72%) with a mean age of 40.7 years (± 9.98). Social-demographic variables did not influence on the level of stress. Among professionals with stress, there was a predominance of resistance phase (79%) and physical symptoms (62%). **Conclusion:** the level of stress among nursing professionals was low. We believe that institutional factors, including payment, benefits, career planning and personal fulfillment, relate to this result. **Descriptors:** Nursing; Professional Burnout; Physiological Stress; Psychological Stress; Occupational Health.

RESUMO

Objetivo: identificar o nível de estresse em profissionais de enfermagem atuantes em um hospital especializado. **Método:** estudo randomizado composto por 86 profissionais de enfermagem. A coleta de dados ocorreu no mês de novembro de 2014, por meio de dois instrumentos: Inventário de Sintomas de Stress para Adultos e Questionário Sociodemográfico. Para a análise estatística utilizou-se o teste Exato de Fisher, Mann-Whitney e Qui-quadrado, todos com nível de significância de 5%. **Resultados:** predominaram os técnicos de enfermagem (72%), com idade média de 40,7 anos ($\pm 9,98$). As variáveis sociodemográficas não influenciaram sobre o nível de estresse. Entre os profissionais com estresse, observou-se predomínio da fase de resistência (79%) e dos sintomas físicos (62%). **Conclusão:** o nível de estresse entre os profissionais de enfermagem foi baixo. Acreditamos que fatores institucionais, incluindo remuneração, benefícios, plano de carreira e realização pessoal, estejam relacionados a esse resultado. **Descritores:** Enfermagem; Esgotamento Profissional; Estresse Fisiológico; Estresse Psicológico; Saúde do Trabalhador.

RESUMEN

Objetivo: identificar el nivel de estrés en los profesionales de enfermería que trabajan en un hospital especializado. **Método:** estudio aleatorio compuesto por 86 profesionales de enfermería. La recolección de datos ocurrió en noviembre de 2014, a través de dos instrumentos: Inventario de Síntomas de Estrés para Adultos y Cuestionario Sociodemográfico. El análisis estadístico se realizó mediante la prueba exacta de Fisher, Mann-Whitney y Chi-cuadrado, todos con un nivel de significación del 5%. **Resultados:** predominaron técnicos de enfermería (72%) con una edad media de 40,7 años ($\pm 9,98$). Las variables sociodemográficas no influyeron en el nivel de estrés. Entre los profesionales con el estrés, hubo un predominio de la fase de resistencia (79%) y los síntomas físicos (62%). **Conclusión:** el nivel de estrés entre los profesionales de enfermería fue bajo. Creemos que los factores institucionales, incluida la retribución, beneficios, planificación de la carrera y la realización personal, están relacionados con este resultado. **Descritores:** Enfermería; Agotamiento Profesional; Estrés Fisiológico; Estrés Psicológico; Salud Laboral.

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INTRODUCTION

Nursing is one of the most stressful professions, possibly by exerting direct and indirect patient care, uninterrupted, within 24 hours¹. The consequences of occupational stress in nursing are devastating, including rates of temporary incapacitation to work, absenteeism, professional dissatisfaction, among others, negatively and directly influencing on the patient's quality of care and safety.² Although stress has been extensively studied, there are still gaps in knowledge about stress in nursing professionals working at specialized hospitals.

Considering the range of feelings and care needs of patients with cleft lip and palate, the professionals working in this area are exposed to various stressors that, besides those inherent to labor, add up to the care needs involved in the rehabilitation process.

Cleft lip and palate are one of the most prevalent orofacial deformities. The incidence is 1/650 live births, varying according to ethnic aspects. Patients with cleft lip and palate face functional, aesthetic, psychological and social problems. The rehabilitation process is long and closely associated with the complexity of the cleft, which may affect alone or in combination with the lip, alveolar ridge, primary and secondary palate, and may also be presented in association with other genetic and clinical syndromes.³

Family involvement, as well as the adherence to treatment, is essential to the success of the rehabilitation process, which must necessarily be grounded in the multidisciplinary approach. The treatment should be humanized and performed by qualified and experienced professionals, preferably active in centers of excellence, enabling the holistic rehabilitation and, consequently, better results.

The institution serves from the pregnant woman whose son with cleft lip and palate diagnosis in, to elderly people who had no opportunity to rehabilitation. In other words, social and emotional issues are constantly triggered, requiring the professionals to have emotional, spiritual and psychic control, which can contribute to occupational stress.

Given the above, the following question arises: what is the level of stress in nursing professionals working at a specialized hospital? Considering the influence of stress on the health of workers and the labor process, including patients, family members and the institution, this research intends to

provide a situational diagnosis, enabling the planning and interventions to minimize this phenomenon.

OBJECTIVES

- To identify the stress level of nursing professionals working at a specialized hospital;
- To characterize the participants and associate the level of stress in relation to age, gender, marital status, number of children, training time, time of profession, expertise in the field, work shift, weekly working hours, and other employment relationships.

METHOD

Cross-sectional study, with quantitative design, developed in a hospital reference in the care of patients with cleft lip and palate and associated syndromes.

The population consisted of nurses, nursing technicians and assistants. For defining the sample, the population of 110 professionals was considered, reliability of 95% and expected proportion of 55%.⁴ The sample calculation resulted in 86 professionals. The inclusion criteria consisted of time of institutional activity over six months, considering this period as adaptive. For the definition of the sample, the eligible professionals were numbered consecutively, in alphabetical order, and selected by means of a table of random numbers obtained from a statistical software.

Data collection occurred during November 2014, in the labor counter-shift of participants through the application of two instruments: the Inventory of Stress Symptoms for Adults (ISSL)⁵ and the Social-demographic Questionnaire.

The ISSL seeks to identify, objectively, the symptoms of stress, the psychological or somatic types and the phase in which it is (alert, resistance, near exhaustion and exhaustion). It consists of three frames with questions regarding the symptoms observed in the four phases of stress, in which the subject points out which symptoms he/she experienced in the last 24 hours, week and month. The instrument consists of three frames related to stress phases. The first frame, consisting of 15 items, refers to the physical or psychological symptoms that the person has experienced in the past 24 hours. The second one, compound by 10 physical symptoms and five psychological symptoms, relates to symptoms experienced in the last week, and the third frame, compound by 12 physical symptoms and 11 psychological

symptoms, refers to symptoms experienced in the last month.⁵

Concomitantly, the Social-demographic Questionnaire was applied, prepared for this study, in order to characterize the professional addressing the variables: gender, age, marital status, number of children, training time, time working at the unit, expertise in the area, shift work, weekly working hours, and other employment relationships.

Statistical analysis was performed using Fisher's exact test, Mann-Whitney and Chi-square test, adopting a level of 5% ($p \leq 0.05$) for considering the differences statistically significant.

The research began after the approval of the project by the Research Ethics Committee of the institution, according to office number 861,162 and CAAE 37188214.0.0000.5441. The participants formalized their participation by signing the Informed Consent Form.

RESULTS

There was participation of 86 nursing professionals, with an average age of 40.7 years (± 9.98), 16.9 years of profession time (± 10.26), and 13.4 years of working time (± 10.39). None of the following variables was associated with stress: age ($p=0.739$), profession time ($p=0.798$) and working time ($p=0.196$).

Regarding the characterization of the participants, there was predominance of women (92%), being married (62%), and two children in the family (34%). Regarding professional experience, there was predominance of a single employment (83%), working at morning and evening shifts (31%), with a workload of 36 hours per week (88%) and with a specialization course (50%) (Table 1). There was evidence of 28% of professionals had stress (Figure 1).

Table 1. Representation of social-demographic data with p-value in comparison with the stress condition. Bauru (SP), Brazil, 2014.

| Variables | Characteristics | n | % | p |
|--------------------|-----------------------|----|----|----------------|
| Gender | Female | 7 | 8 | 1.000 α |
| | Male | 79 | 92 | |
| Marital status | Married | 53 | 62 | 0.212 α |
| | Single | 24 | 28 | |
| | Divorced | 6 | 7 | |
| | Other | 3 | 3 | |
| Number of children | 0 | 28 | 24 | 0.725 α |
| | 1 | 27 | 23 | |
| | 2 | 34 | 29 | |
| | 3 | 11 | 10 | |
| Other employment | Yes | 14 | 14 | 0.751 α |
| | No | 71 | 83 | |
| | Uninformed | 1 | 1 | |
| Working shift | Morning | 26 | 30 | 0.285 α |
| | Morning and afternoon | 27 | 31 | |
| | Afternoon | 17 | 20 | |
| | Evening | 15 | 17 | |
| | Afternoon and evening | 1 | 1 | |
| Weekly workload | 30 | 1 | 1 | 0.937 α |
| | 36 | 76 | 88 | |
| | 40 | 9 | 9 | |
| Specialization | Yes | 43 | 50 | 0.513 β |
| | No | 42 | 48 | |
| | Uninformed | 1 | 2 | |

α : Fisher's Exact Test / β : Chi-square Test

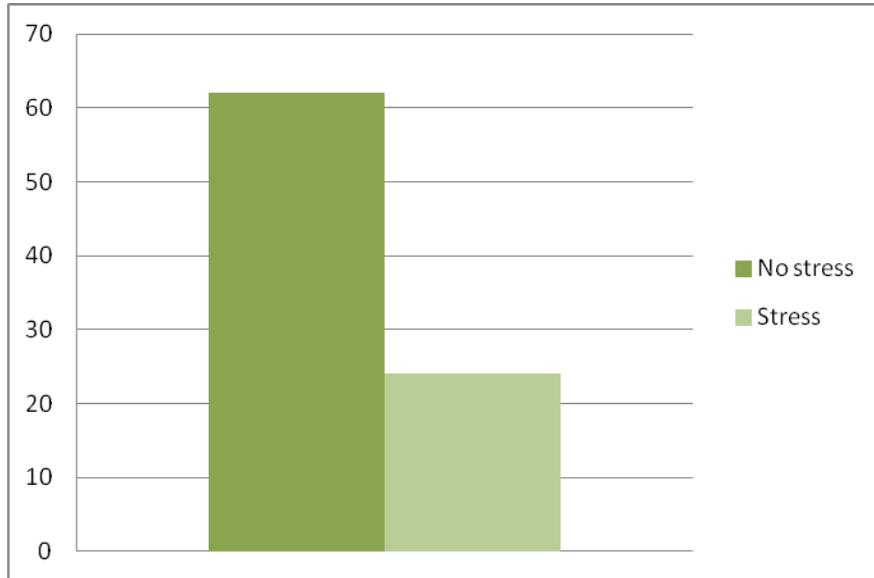


Figure 1. Distribution of participants according to the presence of stress. Bauru (SP), Brazil, 2014.

Among stressed professionals, there was prevalence of the resistance phase (79%) and physical symptoms (62%) (Figures 2 and 3).

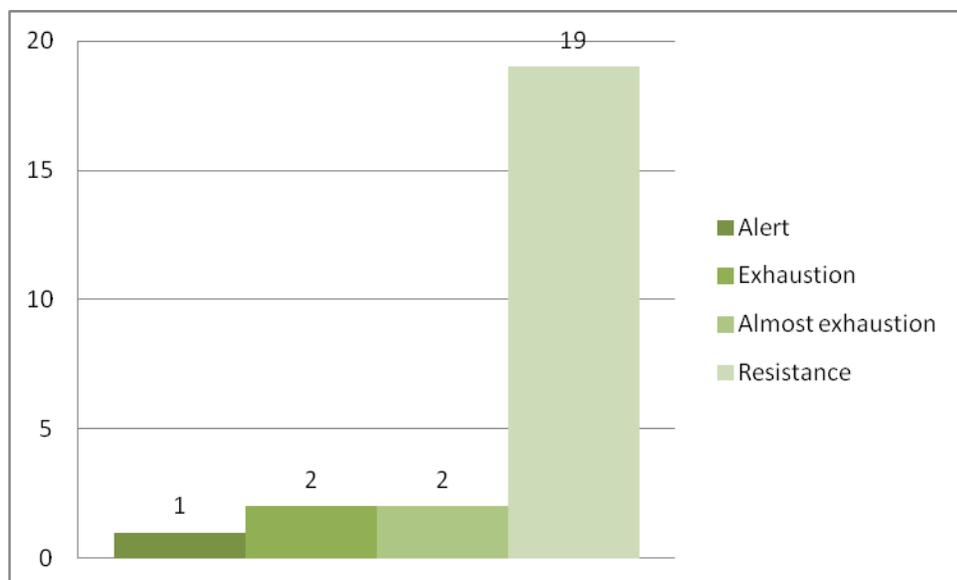


Figure 2. Distribution of participants according to stress phase. Bauru (SP), Brazil, 2014.

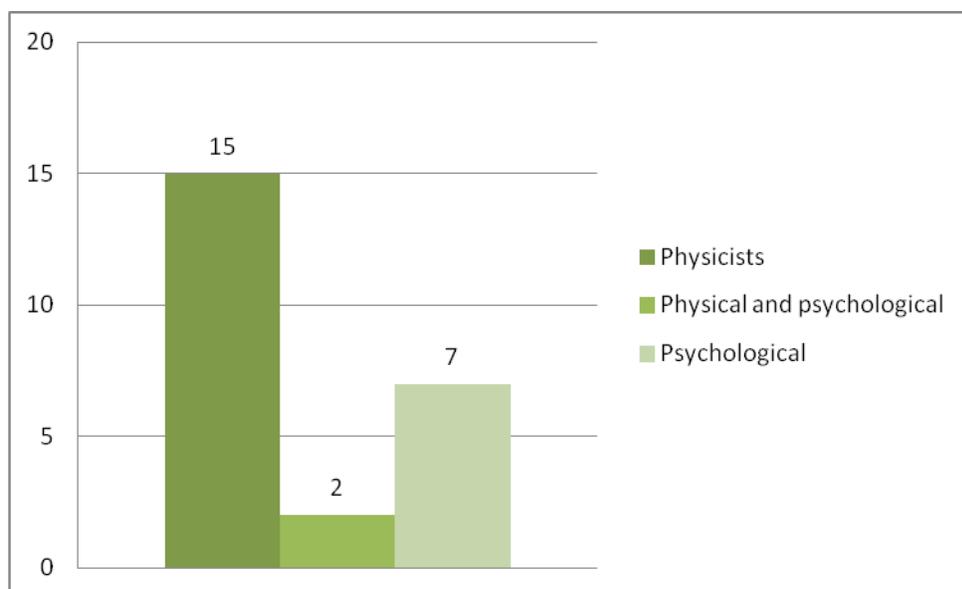


Figure 3. Distribution of participants according to stress symptoms. Bauru (SP), Brazil, 2014.

Concerning the professional category of the participants, there was predominance of nursing technicians (72%), as well as when analyzing the presence of stress in relation to

the professional category, in which there was predominance of nursing technicians (67%) (Figure 4). It is noteworthy that, in the study population, there were only three nursing

assistants that, during the randomization method, were excluded, resulting in nurses

and nursing technicians, only.

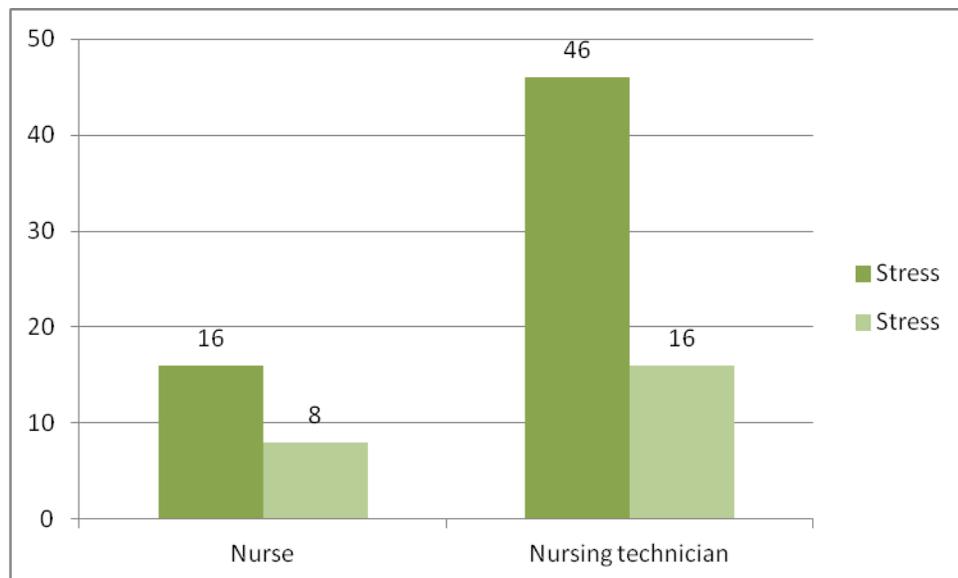


Figure 4. Distribution of participants according to stress and professional class. Bauru (SP), Brazil, 2014.

DISCUSSION

In this study, when analyzing the characterization of patients in relation to gender, there was predominance of women, confirming the literature.⁶⁻⁸ Historically, nursing has majoritarian characteristics of female performance. The profession has become culturally linked to the woman's figure, since women assumed the role of caregiver.⁹ A study concluded that there is an association between women and stress by associating multiple tasks inherent to the profession, to the concern with the children and the home care, which together can act as stressors¹⁰. However, other authors¹¹ showed the activities of personal life as emotional support, disadvantaging the incidence of stress.

In social-demographic characteristics, there was an average age of 40 years. Study concluded that there is little relationship between age and the level of stress.⁷ Conversely, other research associated lower stress levels to older people and higher level of expertise.¹²

Regarding marital status, there was prevalence of married. The literature points out that there is a greater propensity for the occurrence of stress in this population, a fact justified by the double exercised journey, including the hospital and the home, resulting in physical and psychic strain.¹³ In contrast, another study found equivalence in the incidence of stress among single and married professionals.¹⁴

Regarding the number of employments, there was prevalence of a single job. Other studies found similar results.¹⁵⁻⁶ Multiple employments and lack of leisure time

contribute to the elevation of stress.¹⁷ Study evaluated the concentration of salivary cortisol as a physiological indicator of the degree of stress in nurses in working day and off, showing that nurses who performed double shifts had higher values when compared to those who had no other employment. According to the authors, the high incidence of double shifts in nursing is due to low payment, forcing professionals to join other employments, considering the need to support family.¹⁶ Adaptations to the routine and the financial security provided by dual employment are routine in nursing.⁴

In this study, there was prevalence of professionals with expertise, a result similar to the literature.¹⁸ The increased offer of nursing undergraduate courses induces professionals to seek improvement, aiming to professionally succeed.¹⁸ There has been evidence of high stress levels in individuals with expertise, generally associated with the administration of staff and the coordination of hospital units.¹¹

Regarding the weekly workload, there was prevalence of 36 hours. Professionals with weekly working hours of 36 hours usually have other employment, showing correlation between weekly working hours, low payment and double shifts, resulting in increased stress and decreased life quality.¹⁹ Long working hours give unavailability of time to family, rest and leisure, being considered an important stressor.²⁰⁻² Nevertheless, developing normal and extra working hours in the same institution functions as a protective factor against stress due to better adaptation to the sector.²²

As for the shift, there was prevalence of morning and afternoon shifts. Different

researches associate the prevalence of stress in professionals working at night, due to poor quality of sleep and changes of the circadian pace.^{4,7} Research showed high levels of stress among professionals working in double shifts. The professionals alleged incompatibility with the time needed to perform tasks, highlighting the stress associated with high workload.¹³

Excessive workload was also considered an important etiologic factor of stress among hospital nurses, in a comparative study between two Egyptian hospitals. The survey revealed that the lack of personnel, high workload and lack of resources have influenced the occurrence of stress. It also highlighted the relationship between job satisfaction and quality of care.²³

When comparing the professional categories of the sample in this study, there was a predominance of nursing technicians. A similar result was observed in another study.²⁴ Traditionally, nursing technicians compose most of the nursing staff, and their activities directly relate to high levels of stress because, in short, they are responsible for tasks related to repetitive care, direct to patient and with little autonomy.¹⁵

When assessing the presence of stress among professionals, most of them did not have it, contrary to the findings of other studies.^{6-7,15} However, other authors observed that only 22% of the professionals had stress, and associated this result to the use of coping strategies, including spirituality and the support of co-workers.²⁵

Therefore, the mentioned coping factors are present in the institution's work environment where this study was conducted. It is a specialized hospital, linked to a renowned educational institution where their employees enjoy salaries above the national average for the category. Another factor that may have influenced this result is that most professionals have single employment. It is noteworthy that this institution has received several awards related to Hospital Humanization programs, being considered, nowadays, one of the best institutions of Brazil, among those governed with funds from the Unified Health System (SUS).

International study showed the benefits over the stress level regarding having some belief, higher professional experience in the same workplace, adequate remuneration, career plan and benefits.²⁶ Research conducted in order to identify the main sources of stress among Iranian nurses showed, among others, the need to improve labor and working conditions.²⁷

Older nurses have greater ability to cope with stress, a result associated with greater experience, while young professionals often perform tasks that require more effort, which may contribute to the occurrence of stress.²⁸ In this study, the mean age was 40 years and, therefore, there may be evidence of its beneficial effect over stress. Another prophylactic factor to the incidence of stress was job satisfaction. Study of burnout in nurses working in pediatric oncology identified that personal achievement index was high, underscoring the importance of this variable as protective against stress.²⁵ It is noteworthy that, during the data collection, there was satisfaction with work and apparent personal fulfillment of professionals, a fact that confirms the low stress level shown in this study.

Another factor consists of the adaptation process. Nursing professionals seek to find reasons for satisfaction and fulfillment in their work, especially before adverse situations²¹. A study showed that nurses experience different levels of confrontation against the perceived stress.²⁹

Among the stressed professionals of the study, there was predominance of the resistance phase, corroborating the literature.⁴ During the resistance stage, the individual expends higher energy of adaptability and may suffer from widespread wear; however, when the harmony is restored at this stage, the individual returns to his/her original state, without causing any harm to the organism.⁴ Regarding the symptoms of stress, there was a predominance of physical symptoms. However, another survey found equity in relation to the physical and psychological symptoms among nurses, nursing assistants and technicians, with the most pronounced physical symptoms among nurses⁸. When identifying the prevalence of the type of stress-related symptom, it is possible to develop strategies to minimize this event.²⁵

This study may have helped when performing a situational diagnosis of stress among nursing professionals working at a specialized hospital. The interventions aimed at health workers are relevant, considering that the quality of care is directly linked to healthy work teams.³⁰

Although the participants' social-demographic characteristics have not influenced the outcome, it is noteworthy that the model of work of this institution should be considered as an example to the others, although there is need to implement strategies, since, even in smaller quantitative,

there was occurrence of stress among professionals.

In this context, there is need for new studies in order to identify factors associated with stress, coping strategies, or to validate interventions. Also, there is possibility of conducting studies linking stress to variables, such as absenteeism, staff dimensioning, adverse events, job satisfaction and quality of services.

CONCLUSION

The level of stress among nursing professionals was low and possibly associated with institutional factors, including adequate compensation, benefits and career plan.

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Submission: 2016/03/18

Accepted: 2016/07/21

Publishing: 2016/08/01

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