

# BURNOUT SYNDROME AMONG NURSES IN A UNIVERSITY HOSPITAL

## SÍNDROME DE *BURNOUT* ENTRE ENFERMEIROS DE UM HOSPITAL UNIVERSITÁRIO

## SÍNDROME DE *BURNOUT* ENTRE ENFERMEROS DE UN HOSPITAL UNIVERSITARIO

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**Objective:** to identify *burnout* syndrome levels among nurses at a university hospital. **Method:** a cross-sectional study conducted in a university hospital in southern Brazil, with 106 nurses. Data was collected through a questionnaire composed of two self-answered instruments: personal and professional characterization form and the Maslach *Burnout* Inventory. **Results:** the nurses participating in the study presented moderate *burnout* levels for the three subscales: emotional exhaustion (21.9±5.0), depersonalization (8.1±2.6) and personal fulfillment (30.4±3.2). The nurses working in the surgical center had a high rate on the emotional exhaustion subscale. **Conclusion:** a moderate level of *burnout* was identified among the nurses working in a university hospital for the three subscales: emotional exhaustion, depersonalization and personal fulfillment. No significant differences were identified among the *burnout* mean values and the socio-professional characteristics of the participants, or among the hospital sectors.

**Descriptors:** Professional Exhaustion. Job Satisfaction. Psychological Stress. Nursing.

**Objetivo:** identificar os níveis da síndrome de *burnout* entre enfermeiros de um hospital universitário. **Método:** estudo transversal, realizado em um hospital universitário da Região Sul do Brasil, com 106 enfermeiros. Os dados foram coletados por meio de um questionário composto por dois instrumentos autorrespondidos: ficha de caracterização pessoal e profissional e Inventário de *Burnout* de Maslach. **Resultados:** os enfermeiros participantes da pesquisa apresentaram níveis moderados de *burnout* para as três subescalas: exaustão emocional (21,9±5,0), despersonalização (8,1±2,6) e realização pessoal (30,4±3,2). Enfermeiros do centro cirúrgico apresentaram índice alto na subescala exaustão emocional. **Conclusão:** identificou-se um nível moderado de *burnout* entre os enfermeiros de um hospital universitário para as três subescalas – exaustão emocional, despersonalização e realização pessoal. Não foram identificadas diferenças significativas entre as médias de *burnout* e as características socioprofissionais dos participantes, nem entre os setores hospitalares

**Descritores:** Esgotamento Profissional. Satisfação no Emprego. Estresse Psicológico. Enfermagem.

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*Objetivo: identificar los niveles del síndrome de burnout entre enfermeros de un hospital universitario. Método: estudio transversal, realizado con 106 enfermeros en un hospital universitario de la Región Sur de Brasil. Los datos se recolectaron por medio de un cuestionario compuesto por dos instrumentos autorrespondidos: ficha de caracterización personal e Inventario de Burnout de Maslach. Resultados: los enfermeros que participaron de la investigación presentaron niveles moderados de burnout para las tres subescalas: agotamiento emocional (21,9±5,0), despersonalización (8,1±2,6) y realización personal (30,4±3,2). Los enfermeros del centro quirúrgico presentaron un índice elevado en la subescala de agotamiento emocional. Conclusión: se identificó un nivel moderado de burnout entre los enfermeros de un hospital universitario para las tres subescalas: agotamiento emocional, despersonalización y realización personal. No se identificaron diferencias significativas entre las medias de burnout y las características socioprofesionales de los participantes, como así tampoco entre los sectores hospitalarios.*

*Descriptores: Agotamiento Profesional. Satisfacción con el Empleo. Estrés Psicológico. Enfermería.*

## Introduction

Working is an important element in human life because, in addition to providing livelihood to the individual, it also generates positive feelings related to professional achievement and personal growth. However, when work is performed under inadequate conditions, negative impacts may arise for the physical and mental health of the worker. Among these manifestations, an extremely important item is occupational stress, which leads to job dissatisfaction, decreased work performance, absenteeism and occupational diseases<sup>(1-3)</sup>.

When stress becomes excessive and chronic due to work overload, *burnout* syndrome happens. This syndrome has gained more and more evidence in contemporary studies, especially among those investigating the health of the nursing worker. This profession is potentially susceptible to interferences from the work context that suggest professional exhaustion, such as the organization of work in shifts, daily contact with death and human suffering<sup>(3-5)</sup>.

Also called Professional Exhaustion Syndrome, this disease is characterized as the process in which aspects of the work context and interpersonal relationship contribute to the development of psychological distress related to the work context<sup>(4-5)</sup>. It often starts with a feeling of emotional distress, which is the first response to chronic work stress. Then, there is depersonalization, which refers to the perception that the competence to solve problems and job satisfaction are deteriorating. As a consequence,

manifestations such as anxiety, irritability, demotivation, disengagement and alienation are observed. In addition, the worker also tends to self-assess negatively, becoming unhappy and dissatisfied with his or her professional activity<sup>(6-9)</sup>.

Thus, the performance of the worker who is stressed in performing his or her activity influences his health and compromises his performance in personal, social and occupational life, and may also affect the care provided to the patients when the occupation is executed in the health services. Thus, factors present in the work environment, capable of promoting dissatisfaction and suffering, as well as negatively interfering with the workers' quality of life, should gain special attention by the health managers. Due to the individual and collective repercussions mentioned above, the *burnout* syndrome has aroused the interest and concern of researchers and governmental, business and labor movement organizations<sup>(5-9)</sup>.

In the scientific literature on Nursing, research studies about the *burnout* syndrome among nurses in the hospital<sup>(5,8-11)</sup> and pre-hospital<sup>(7)</sup> contexts were identified, which indicated the need for continuous studies on this topic, to disseminate and assist in the reduction of its effects among professionals. Thus, this study represents a contribution to the construction of knowledge about occupational health and the discussion about the *burnout* syndrome among hospital nurses. Given the considerations presented, the following

research question was established: What is the prevalence of the *burnout* syndrome in nurses of a university hospital?

The aim of this study was to identify the *burnout* syndrome levels among nurses working in a university hospital.

## Method

This is a cross-sectional study, developed in a public university hospital in southern Brazil, which has 268 beds. The nursing service of the institution is organized and structured in four assistance departments: Emergency and Outpatient, Medical Clinic, Surgical Clinic and Women, Children and Adolescents Health.

The eligible population for the research consisted of 162 nurses linked to the Nursing Direction of the institution. The inclusion criteria were the following: care activities and length of experience of three months or more at the current workplace. The three-month period was defined based on the premise that this time is the minimum required to adaptation of a professional in a new workplace. Participants absent for vacation or leave of any kind were excluded.

Thus, of the 162 nurses in the hospital, 12 held managerial positions, 2 did not perform care activities in their sectors, 7 had less than 3 months of work in the current workplace and 9 were on vacation or leave for health treatment. Among the 132 nurses who met the inclusion and exclusion criteria, 9 refused to participate and 17 did not return the instruments. When considering the number of nurses able to participate in the study, 106 (80.3%) participants were obtained, a figure which corresponds to the intentional sample of the study obtained from the population accessed.

Data collection was performed from November 2012 to November 2013, through two self-reported instruments: personal and professional characterization form and the Maslach Burnout Inventory (MBI)<sup>(12)</sup>. The personal and professional characterization form addressed personal characteristics (age, gender

and marital status) and professional characteristics (professional training, length of experience in the profession, work shift, working time in the unit and institution, weekly workload and existence of other employment). The MBI was adapted and validated for the Brazilian culture and aims to measure professional exhaustion by assessing the individual's feelings about his or her work. It is a self-applicable instrument that contains 22 statements related to feelings about work.

The assessment of *burnout* syndrome occurs in three independent but related dimensions: emotional exhaustion, depersonalization and decreased personal fulfillment. Emotional exhaustion corresponds to physical and emotional exhaustion to deal with stressful situations. Depersonalization is the tendency of workers to self-evaluate negatively, becoming unhappy and dissatisfied with their professional development. Decreased personal fulfillment involves the development of cold, negative and insensitive attitudes toward the receivers of a service<sup>(13)</sup>. In this study, the Cronbach's alpha coefficients of the emotional exhaustion, depersonalization and decreased personal fulfillment subscales were 0.85, 0.69 and 0.60, respectively.

Items should be scored according to how often the professional experiences certain situations: (1) never, (2) a few times a year, (3) a few times a month, (4) a few times a week, and (5) daily<sup>(12)</sup>. To evaluate the results, the sum of the participants' responses for each subscale should be obtained, which may vary between 9 and 45 points for the emotional exhaustion subscale, between 5 and 25 for the depersonalization subscale and between 8 and 40 for the decreased personal fulfillment subscale. Importantly, in the emotional exhaustion and depersonalization subscales, the higher the score, the greater the feelings of emotional exhaustion and depersonalization perceived by the nurse. In the decreased personal fulfillment subscale, since it has a reverse score in relation to the other subscales, higher scores indicate high personal achievement<sup>(11)</sup>.

To analyze the level of *burnout* syndrome among nurses, we obtained the sum regarding emotional exhaustion, depersonalization and

decreased personal fulfillment. Then, the percentile cutoff calculation was performed to

establish the low, moderate and high levels, of which the scoring range is shown in Table 1.

**Table 1** – Classification of the *burnout* levels according to the percentiles for each subscale. Florianópolis, Santa Catarina, Brazil – 2012-2013

Subscale	<i>Burnout</i>		
	Low	Moderate	High
Emotional exhaustion	≤18	19 – 24	≥25
Depersonalization	≤6	7 – 9	≥10
Decreased personal fulfillment	≥32	28 – 31	≤28

Source: Created by the authors.

The data collected were tabulated in Excel® 2013 and analyzed using the *Statistical Package for the Social Sciences* (SPSS) program for Windows, version 19.0. To describe the profile of the sample, descriptive statistics were used with the elaboration of absolute and relative frequency tables of the categorical variables and the calculation of position and dispersion measures (mean, median, standard deviation, minimum and maximum values) for the continuous variables. For the comparison among groups, the analysis of variance (ANOVA) and the *Bonferroni* test were used. Statistical tests were considered significant when p-value <0.05.

To comply with the ethical aspects, the study was approved by the reference Research Ethics Committee, under Opinion No. 144,436 and CAAE: 09885612.1.0000.0121, and followed the guidelines of Resolution No. 466/2012 of the National Health Council. All the members of

the research were informed about the proposed objectives and methodology, and had their right to access the data assured. The free and informed written consent was requested, ensuring the confidentiality of the participants' identities and of the information collected.

## Results

The sample consisted of 106 nurses, Emergency (17.9%), Medical Clinic (14.2%) and Intensive Care Unit (13.2%) being the units with the largest number of participants. As for the work shift, the night shift prevailed (32.1%). The mean workload was 37.41 hours (Standard Deviation=sd±11.80). The mean time of professional experience was 13.5 years (sd±9.46) and the mean working time in the institution was 12 years (sd±9.69). The other personal and professional characterization variables are presented in Table 2.

**Table 2** – Characteristics of the study participants. Florianópolis, Santa Catarina, Brazil – 2012-2013 (n=106) (continued)

Variables	n	%
<b>Age (years old)</b>		
30 years old or less	29	27.4
31 to 40	33	31.1
41 to 50	32	30.2
51 or more	12	11.3
<b>Gender</b>		
Female	98	92.5
Male	8	7.5

**Table 2** – Characteristics of the study participants. Florianópolis, Santa Catarina, Brazil – 2012-2013 (n=106) (conclusion)

Variables	n	%
<b>Marital status</b>		
Married	53	50.0
Single	35	33.0
Separated	10	9.4
Did not answer	8	7.5
<b>Professional training</b>		
Specialization ( <i>lato sensu</i> )	49	46.2
Master's degree	41	38.7
Graduation	10	9.4
Doctor's degree	6	5.7
<b>Other employment</b>		
No	89	84.0
Yes	17	16

Source: Created by the authors.

Table 3 presents the mean values and standard deviations of the MBI subscales, by hospital sector. According to the classification of the *burnout* levels in line with the percentiles, the survey participants generally presented

moderate levels for the three subscales analyzed. The comparison among the *burnout* mean values and the socio-professional characteristics of the participants did not generate statistically significant differences.

**Table 3** – MBI mean value and standard deviation by hospital sectors. Florianópolis, Santa Catarina, Brazil – 2012-2013 (n=106)

Variables	Emotional exhaustion		Depersonalization		Decreased personal fulfillment	
	Mean	SD*	Mean	SD*	Mean	SD*
Joint accommodation	18.2	2.6	6.2	1.3	31.7	3.2
Outpatient	20.0	5.4	6.8	2.7	32.7	2.5
Surgical center	27.0	7.0	9.0	0	30.5	0.7
Surgical clinic	24.3	4.7	9.9	2.4	28.5	2.8
Medical clinic	20.6	5.2	7.2	2.4	31.7	2.8
Obstetric center	22.2	4.9	5.8	0.9	28.6	4.9
Emergency	23.0	5.1	9.3	2.9	30.2	3.6
Hemodialysis	22.6	6.6	9.3	3.2	28.6	3.5
Pediatrics	19.1	5.9	7.5	1.8	32.3	3.0
Gynecological unit	21.6	5.9	8.5	4.3	30.7	2.7
Intensive Care Unit	22.8	4.2	8.5	1.8	29.4	2.4
Neonatal Intensive Care Unit	22.6	4.2	7.6	1.6	29.8	2.6
<b>Total</b>	<b>21.9</b>	<b>5.0</b>	<b>8.1</b>	<b>2.6</b>	<b>30.4</b>	<b>3.2</b>

Source: Created by the authors.

\* SD=standard deviation.

No significant differences were identified among the results of the subscales and the hospital sectors. However, the nurses from the surgical center had a high rate in the emotional exhaustion subscale. In the depersonalization subscale, no nurses reached high scores and the lowest mean value was identified in the obstetric center. In the decreased personal fulfillment subscale, the lowest rates were found in pediatrics and in outpatient clinic.

## Discussion

The group of nurses participating in this study consisted predominantly of female mid-career professionals. This result is in line with the nursing profile in Brazil<sup>(14)</sup> and with findings described by previously developed studies<sup>(16-18)</sup>.

Regarding the length of professional practice, it was found that the mean times of professional and institutional experience were higher in relation to the period of practice in the sector. This may indicate the existence of high nurse turnover among the work sectors. The relation between job dissatisfaction and high professional turnover was found in a literature review on the consequences of moral distress in nurses. This association may result in an impairment of the quality of care<sup>(15)</sup>.

Regarding training, the high professional qualification of nurses stands out, as 96 (90.6%) participants were at least specialists. This result is similar to previous studies, in which most nurses had some kind of postgraduate degree<sup>(16-18)</sup>. Such level of professional education may be justified by the academic affiliation of the institution where the data were collected, as university hospitals stand out for their encouragement and for the appreciation of the workers' professional development.

The MBI's overall results were 21.9 ( $\pm 5.0$ ) for the emotional exhaustion subscale, 8.1 ( $\pm 2.6$ ) for depersonalization and 30.4 ( $\pm 3.2$ ) for decreased personal fulfillment, which indicates a moderate level of *burnout* among the participants. Similar findings are also described in previous studies conducted in Brazil<sup>(5,19)</sup>. Compared with the

results of a multi-center research conducted in eight countries, it was found that the mean emotional exhaustion obtained in this study was lower than that of nurses in Japan. The degree of depersonalization was lower compared to the results from the United States and Japan. In contrast, personal fulfillment was lower, especially in relation to the United States, Canada and New Zealand<sup>(9)</sup>.

In the comparison among the socio-professional characteristics and the participants' *burnout* mean values, there were no statistically significant differences. This may be justified by the sample size and the multiplicity of aspects that involve the variable under study. In addition, the study sample consisted mostly of females, which made it difficult to establish statistical standards and to analyze comparative data between genders.

However, a study about the presence of burnout syndrome among nursing professionals of Intensive Care Units of a University Hospital identified a higher prevalence among female, married and young adults. In addition, a greater workload showed positive significance, with a high standard of depersonalization and emotional exhaustion<sup>(5)</sup>.

According to the literature, women are more vulnerable to *burnout*, as they are more likely to be involved with the problems of people under their care<sup>(20)</sup>. Regarding age, idealization and high expectations are more common among young workers, which may predispose to the development of *burnout*<sup>(19)</sup>.

Regarding the hospital sectors, the surgical center was the work environment in which nurses had a high level of emotional exhaustion. This result may be justified because it is an environment of high emotional demands, influenced by the complexity of the procedures and their risks of complications<sup>(21)</sup>. In addition, as it is a scenario with performance of various professional categories, the occurrence of relationship conflicts and communication problems is common, especially among the medical and nursing staff. In this context, the nurse stands out for acting in mediation and

conflict resolution, aiming at the integration among professionals<sup>(22)</sup>, which may also represent a source of stress and professional exhaustion.

In return, the results of this research indicated a low degree of depersonalization in nurses at the obstetric center and high personal fulfillment of those who worked in the outpatient and pediatrics. These results may be associated with personal identification with the work scenario, good relationship with the work team, professional qualification and availability of support network outside the work environment, factors that predispose to greater job satisfaction<sup>(2-3,23)</sup>.

Other research studies on burnout among nursing workers in different scenarios are available and were identified in the literature. A cross-sectional study of military nurses and nursing assistants working in the critical and intensive care unit of a Peruvian hospital identified higher scores for emotional exhaustion and depersonalization, and lower scores on decreased personal fulfillment, which implies a higher degree of distress<sup>(8)</sup>.

A longitudinal, nonrandomized study conducted with nurses from 13 hospitals in different units of the Valencian Community, Spain, with the aim to examine the relation between *burnout* and job satisfaction, concluded that there is a two-way and longitudinal relation between *burnout* and job satisfaction. However, the effects of the *burnout* syndrome as antecedent of job satisfaction are stronger than job satisfaction as antecedent of *burnout*<sup>(10)</sup>.

A cross-sectional research conducted with professionals from a Mobile Emergency Care Service (nurses, nursing technicians, nursing assistants, doctors and drivers) identified high scores for emotional exhaustion and depersonalization. Emotional exhaustion and depersonalization were higher in the medical team when compared to the nursing team<sup>(7)</sup>. A study conducted with nurses in hospitals in the United Kingdom showed a relation between the dimensions of the *burnout* syndrome and the safety of care perceived by the patient<sup>(24)</sup>. In addition, according to a systematic literature

review that analyzed the association among the health care team well-being, *burnout* and patient safety, higher *burnout* levels are associated with a higher frequency of diagnostic or therapeutic errors, leading to poor patient safety<sup>(25)</sup>.

Several manifestations regarding the dimensions of the *burnout* syndrome need attention by institutions, with the planning and implementation of measures that favor the reduction of stress in the workplace. Assisting the professionals in coping with situations that seem to lead them to *burnout* is a possibility to contribute to strengthening the exercise of their own care<sup>(18)</sup>. In this sense, the role of the managers in providing favorable working conditions for professionals is highlighted, in order to avoid levels of exhaustion and/or psychological-emotional distress, providing improvements in the workers' quality of life, which will impact on improvements in care quality.

The study has as limitation the representation of the reality of a single hospital in Southern Brazil. Studies with a larger number of participants and including other hospital scenarios may generate more representative information of the investigated object. Another limitation refers to the cross-sectional design, since in this case reverse causality cannot be ruled out. It is also important to mention the recognized limitations of research on *burnout*, due to the lack of consensus in the literature about whether one or three high levels of dimensions are required. In addition, there is no consensus on the cutoff point used in the interpretation of the questionnaire results, which makes it difficult to verify the prevalence of *burnout* and comparisons among studies.

## Conclusion

The nurses participating in the study presented moderate *burnout* levels for the three subscales: emotional exhaustion, depersonalization and personal fulfillment. No significant differences were identified among the *burnout* mean values and the socio-professional characteristics of the participants, or among the hospital sectors.

Nursing and health managers in the hospital environment are recommended to develop actions and programs aimed at worker health and quality of life at work. Regarding the developments of this study, the possibility of further investigations exploring the issue in question through a qualitative approach is pointed out, in order to discuss aspects that influence the professional satisfaction of nurses.

### Collaborations:

1 – conception, design, analysis and interpretation of data: José Luís Guedes dos Santos, Caroline Cechinel Peiter and Alacoque Lorenzini Erdmann;

2 – writing and relevant critical review of the intellectual content: José Luís Guedes dos Santos, Rosângela Marion da Silva, Caroline Cechinel Peiter, Fernando Henrique Antunes Menegon and Alacoque Lorenzini Erdmann;

3 – final approval of the version to be published: José Luís Guedes dos Santos, Rosângela Marion da Silva, Caroline Cechinel Peiter, Fernando Henrique Antunes Menegon and Alacoque Lorenzini Erdmann.

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