

# CUIDADO É FUNDAMENTAL

UNIVERSIDADE FEDERAL DO ESTADO DO RIO DE JANEIRO • ESCOLA DE ENFERMAGEM ALFREDO PINTO

SYSTEMATIC REVIEW OF THE LITERATURE

DOI: 10.9789/2175-5361.2017.v9i2.551-557

## Síndrome de burnout em profissionais de enfermagem de uma unidade de terapia intensiva

Burnout syndrome in nursing professionals from an intensive care unit

*Síndrome de burnout* en una unidad de cuidados intensivos enfermería profesionalLarissa Santi Fernandes<sup>1</sup>; Maria José Trevizani Nitsche<sup>2</sup>; Ilda de Godoy<sup>3</sup>

### How to quote this article:

Fernandes LS; Nitsche MJT; De Godoy I. Burnout Syndrome in nursing professionals from an Intensive Care Unit. Rev Fund Care Online. 2017 abr/jun; 9(2):551-557. DOI: <http://dx.doi.org/10.9789/2175-5361.2017.v9i2.551-557>

### ABSTRACT

**Objective:** To assess Burnout Syndrome's level in nursing professionals from an Intensive Care Unit. **Methodology:** A quantitative cross-sectional study, conducted with 47 nursing professionals working in the intensive care unit of a public hospital of high complexity, from April to October 2012. We used a self-administered structured questionnaire plus the Maslach Burnout Inventory, was analyzed by logistic regression using the Wald test. **Result:** 74.5% of the respondents had a high level for exhaustion, 93.7% for low job satisfaction and high level to 93.7% depersonalisation. **Conclusions:** The intensive environment is conducive to the Syndrome's development.

**Descriptors:** Burnout; Nursing; Intensive Care; Health Promotion.

<sup>1</sup> Nurse, Master, Public Health Program, Faculty of Medicine of Botucatu/UNESP. Botucatu (SP), Brasil. E-mail: [lalaser@gmail.com](mailto:lalaser@gmail.com).

<sup>2</sup> Nurse, PhD Professor, Faculty of Medicine of Botucatu/UNESP. Botucatu (SP), Brasil. E-mail: [zecatze@fmb.unesp.br](mailto:zecatze@fmb.unesp.br).

<sup>3</sup> Nurse, PhD Professor, Faculty of Medicine of Botucatu/UNESP. Botucatu (SP), Brasil. E-mail: [degodoy@fmb.unesp.br](mailto:degodoy@fmb.unesp.br).

## RESUMO

**Objetivo:** Avaliar o nível da Síndrome de Burnout nos profissionais de Enfermagem na Unidade de Terapia Intensiva. **Métodos:** Estudo quantitativo e transversal, realizado com 47 profissionais de Enfermagem que trabalham na Unidade de Terapia Intensiva de um hospital público de alta complexidade, no período de Abril a Outubro de 2012. Utilizou-se um questionário estruturado autoaplicável acrescido do Maslach Burnout Inventory, analisou-se por regressão logística pelo teste de Wald. **Resultados:** 74,5% dos profissionais obtiveram um alto nível para exaustão, 93,7% baixo nível para realização profissional e 93,7% alto nível para despersonalização. **Conclusão:** O ambiente intensivista é propício para o desenvolvimento da Síndrome.

**Descritores:** Burnout; Enfermagem; Terapia intensiva; Promoção da Saúde.

## RESÚMEN

**Objetivo:** Evaluar el nivel de síndrome de Burnout en los profesionales de enfermería en la Unidad de Cuidados Intensivos. **Métodos:** Un estudio transversal cuantitativo, realizado con 47 profesionales de enfermería que trabajan en la unidad de cuidados intensivos de un hospital público de alta complejidad, de abril a octubre de 2012. Se utilizó un cuestionario estructurado autoadministrado más el Maslach Burnout Inventory, se analizó mediante regresión logística utilizando el test de Wald. **Resultados:** El 74,5% de los encuestados tenía un alto nivel de agotamiento, el 93,7% para la baja satisfacción en el trabajo y el alto nivel de 93,7% despersonalización. **Conclusión:** El medio ambiente intensivo es propicio para el desarrollo del síndrome.

**Descritores:** Burnout; Enfermería; Cuidados Intensivos; Promoción de la Salud.

## INTRODUCTION

Burnout Syndrome (SB) or Job Burnout is one of the consequences of professional stress. It is characterized by the response to chronic emotional and interpersonal sources of stress at work, which reaches a great number of health professionals.<sup>1-5</sup>

In this sense, work stress is characterized as an adaptive response of the body in new situations, especially those perceived as threatening. However, this process is individual, with variations on the perception of tension and various psychopathological manifestations. It can generate a variety of physical, psychological and cognitive symptoms, requiring prolonged adaptive responses such as overcoming, tolerate or adapt to stressors, which can compromise the individual and the organizations and trigger the Burnout Syndrome.<sup>6-7</sup>

The Burnout Syndrome presents a multidimensional concept, consisting of emotional exhaustion, reduced personal accomplishment and depersonalization of the other. Emotional exhaustion refers to the lack of energy and enthusiasm, fatigue, a feeling of exhaustion of emotional resources needed to handle the stressful situation, which can add to the sense of frustration and tension among workers. The reduction of personal accomplishment refers to the perception of deteriorating aptitudes and dissatisfaction with the achievements and successes of themselves at work,

becoming unhappy and dissatisfied with their professional development, with consequent decline in their sense of competence and success, and their capacity for social interaction as well. The depersonalization refers to negative attitudes, insensitivity and lack of concern in relation to other people, leading professionals to treat their patients, colleagues and organization in a dehumanized way.<sup>2,8-11</sup>

The Burnout Syndrome is most evident in nursing professionals as a result of demand, workload, double shifts, occupational hazards, precariousness of material resources, lack of qualified personnel and conflictual interpersonal relationships. The gradual exposure to these factors, considered stressors, leads to physical and emotional exhaustion, interfering with life quality and damaging the interaction with their functions and the work environment that triggers the syndrome.<sup>12-14</sup>

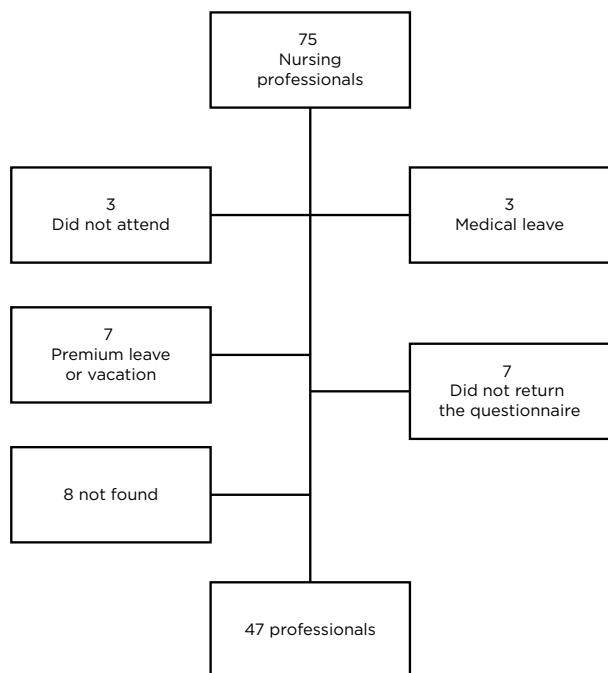
Therefore, due to the Syndrome's consequences on life quality, in the performance of nursing professionals, regarding the severity's degree of the patients admitted to the Intensive Care Unit (ICU) and labor's demand, this study aimed to evaluate the association between the category professional nursing and the occurrence of SB in the Adult ICU of a public hospital of high complexity by the absence of previous studies regarding this service.

## METHODS

This is a descriptive study of a quantitative approach, transversal and analytical, among workers from the Adult ICU of the nursing area from a high complexity public hospital, from April to October 2012. The criteria adopted was all nursing professionals (nurses, nursing technicians and nursing assistants) located in the Section of Nursing Technician in the Hospital of Botucatu - UNESP who, at the time of the research, were not in a sick leave and/or prolonged sick leave and vacation.

Figure 1 shows the flowchart with the number of professional participants (47) and the excluded (28), and the total of professionals working in the Adult ICU at the time of the study.

**Figure 1-** Flowchart of the sample of professionals in the adult intensive care unit, Botucatu, Abr/Out, 2012



The professionals were informed about the research and its objective, and only those who agreed to be part of the research and signed the Consent Agreement and Clarified participated in the study.

For data collection it was used a structured, self-administered, according to the model used in a study by Jodas and Haddad<sup>15</sup>, authorized in Brazil in 2001. The questionnaire included socio-demographic, professional, information on leisure activities, predictors and somatic symptoms related to the Burnout Syndrome. It was added the Maslach Burnout Inventory (MBI), which helped to identify the symptoms of the syndrome.<sup>12,15</sup>

Composed by 22 questions, divided according to these categories: the questions from one to nine (1-9) refer to the level of emotional exhaustion, questions 10 to 17 refer to professional achievement, and the questions 18 to 22 to depersonalization.<sup>15-16</sup>

To score the instrument, it was adopted the Linkert scale, which ranges from zero to six (0 to 6), being: zero (0) never, one (1) once a year or less, two (2) once month or less, three (3) a few times a month, four (4) once a week, five (5) a few times a week, six (6) everyday.<sup>1,15</sup>

The answers were summed up according to each category and compared to the reference values of the Advanced Studies Group on the Burnout Syndrome.<sup>14</sup>

The Maslach Burnout Inventory questionnaire ranks as Burnout Syndrome the obtaining of high level to emotional exhaustion and depersonalization and low for professional achievement. However, for Burnout's manifestation it is necessary that the professional fits these three established criteria.<sup>15</sup>

The questionnaires were entered into Microsoft Excel 2010 program's spreadsheets by the author of the research.

In the statistical analysis it was adopted as an independent variable the professional category (Technical Nurse/Nurse/Nursing Assistant) and the dependent variable SB. Potential confounders were: time of profession, acting in the ICU, have more than one job, weekly working hours, age, gender, having children or not, practicing physical activity and statutory regime (yes/no).

The analysis was performed in two steps. In step one, the confounders were identified relating each potential confounder with the chance of being diagnosed with SB by multiple logistic regression. In step two, the relationship between business categories and the chance diagnostic SB was analyzed by multiple logistic regression, considering the confounders identified in step one. We used the Wald test and calculated the odds ratio (OR). Relationships were considered significant if  $p < 0.05$ . Analyses were performed with the software SPSS v15.0.

Whereas there was no intention of estimating causal relationships, but only positive (or negative) relationships, the choice of cross-sectional design does not embed systematic error, and therefore, design defect. Selection error can occur, depending if the sample was not randomly selected. It is unlikely to have information error because the stress was not measured directly by the researcher who knew the case and, moreover, there is no chance of the profession misclassification.

The study was approved by the Research Ethics Committee (CEP) of the Faculty of Medicine of Botucatu (FMB) - UNESP in March 2012, under Protocol CEP 4129-2012, and is in accordance with Resolution CNS - 196/96. This study did not count on financial aid.

## RESULTS

Were interviewed 11 nurses (23.4%), 29 technicians (61.7%) and seven nursing assistants (14.9%), totaling 47 employees. The average age of respondents was 32.9 + 7.4 years and the professional exercise time was eight + 6.2 years. The average weekly working hours was 41.2 + 2.9 hours.

The average score in relation to emotional exhaustion was 31.09 + 9.2 points, professional achievement was 21.11 + 7.7 points and depersonalization was 15.36 + 4.5 points.

Table 1 shows the distribution of workers by sex, marital status, children, work status, working hours, working time, degree, college or course and physical activity, according to professional category (Nurse, Technical Nursing and Nursing Assistant).

The professionals were female (83%), married (49%) with children (55.3%), governed by the Consolidation of Labor Laws (CLT) (63.8%) worked in a 12-hour basis (44.7%), 68.1% had completed high school, 69.5% did not go to college and/or a course and 59.5% did not exercise.

**Table 1** - Distribution of sex, marital status, number of children, employment status, working time, title, college or course and physical activity, according to professional category. Botucatu, SP, Brasil, 2012

Epidemiological Data	Nurse		Nursing Technician		Nursing assistant		Total	
	n	%	n	%	n	%	n	%
<b>Sex</b>								
Female	10	21,2	22	46,9	7	14,9	39	83,0
<b>Marital status</b>								
Married	3	6,4	17	36,2	3	6,4	23	49,0
Single	8	17,0	10	21,3	2	4,3	20	42,6
Divorced	0	0	2	4,3	2	4,3	4	8,6
<b>Children</b>								
Yes	3	6,4	16	34,0	7	14,9	26	55,3
<b>Work Situation</b>								
Statutory	2	4,4	6	12,8	7	14,9	15	32,1
CLT	9	19,1	21	44,7	0	0	30	63,8
Temporary	0	0	2	4,3	0	0	2	4,3
<b>Work time</b>								
Six hours	2	4,2	1	2,1	1	2,1	4	8,4
Twelve hours	8	17,1	24	51,0	4	8,5	36	76,6
Any time	1	2,1	4	8,5	2	4,3	7	14,9
<b>Titration</b>								
High School	0	0	25	53,2	7	14,9	32	68,1
Graduation	3	6,4	4	8,5	0	0	7	14,9
Specialization	8	17,0	0	0	0	0	8	17,0
<b>College or Course</b>								
Yes	4	8,7	8	17,4	2	4,3	14	30,4
<b>Physical activity</b>								
Yes	3	6,4	13	27,7	2	4,3	18	38,4

In regard to emotional exhaustion classification, 74.5% of subjects reported a high standard, as well as depersonalization (93.7%) and 93.6% scored low for professional satisfaction, as described in Table 2.

**Table 2** - Emotional exhaustion classification, professional accomplishment and depersonalization according to professional category. Botucatu, SP, Brasil, 2012

Professional Category / Classification	Nurse (%)	Technical Nurse (%)	Nursing Assistant (%)	Total (%)
<b>Emotional exhaustion</b>				
High	21,3	44,7	8,5	74,5
Medium	2,1	14,9	4,3	21,3
Low	0	2,1	2,1	4,2
<b>Professional accomplishment</b>				
High	0	0	0	0
Medium	4,3	2,1	0	6,4
Low	19,1	59,6	14,9	93,6
<b>Depersonalization</b>				
High	21,3	59,6	12,8	93,7
Medium	2,1	2,1	2,1	6,3
Low	0	0	0	0

Both men and women were assessed positively to SB (8.5% and 57.4%, respectively). Among the professionals working under employed regime (42.5%) and 23.4% of statutory presented the syndrome. Among those who work 12 hours, 48.9% had the SB, compared with those who work only one shift (17%). Among those who attended high school, 44.7% were positively evaluated for the syndrome, 10.6% of graduates and 10.6% of the experts presented the SB. Regarding physically active, 27.7% had the SB, compared with 36.2% of non-practitioners who had the syndrome.

The chance to acquire SB was significantly higher among employees working in two or more shifts (OR = 4,07; IC95% =1,13 – 14,5; p = 0,031).

Table 3 shows the estimation of the parameters of the regression model ( $\beta$ ), the standard error associated with this estimate (p), p value associated with the test (p), the odds ratio (OR) and the confidence interval of OR (95), by variable and professional category by working in two or more shifts.

**Table 3** - Chance of SB according to sociodemographic variables and variables on the work. Botucatu, SP, Brasil, 2012

Variable	Burnout Syndrome						
	$\beta$	Ep	Wald	p	OR	IC95%	
Male	-0,811	0,788	1,060	0,303	0,444	0,095	2,081
Age	0,066	0,049	1,859	0,173	1,069	0,971	1,176
Living with partner	1,114	0,651	2,930	0,087	3,046	0,851	10,905
Has children	-0,446	0,629	0,503	0,478	0,64	0,186	2,196
Has any leisure activity	0,446	0,629	0,503	0,478	1,562	0,455	5,362
Practices some physical activity	0,594	0,649	0,839	0,36	1,812	0,508	6,464
Time in the profession	0,03	0,053	0,323	0,570	1,030	0,929	1,142
Hired as statutory	0,501	0,689	0,529	0,467	1,650	0,428	6,363
Workload	0,158	0,136	1,347	0,246	1,171	0,897	1,529
Works 12 hours	1,405	0,651	4,662	0,031	4,074	1,138	14,581
Has another job	-1,576	0,932	2,860	0,091	0,207	0,033	1,284
Last vacation time	0,175	0,499	0,123	0,726	1,192	0,448	3,170
<b>Profession in two or more shifts</b>							
Nurse			1,40	0,50			
Technical Nurse	0,26	0,80	0,11	0,741	1,30	0,27	6,28
Nursing Assistant	-0,88	1,09	0,65	0,420	0,42	0,05	3,51
Works 12 hours	1,64	0,71	5,36	0,021	5,15	1,29	20,62
Constant	-0,25	0,74	0,11	0,741	0,78		

The association between SB and work in two or more shifts was maintained (OR = 5.15, 95% CI 1.29 to 20.62). The OR may be overestimated due to the study design and analysis option.

## DISCUSSION

In this study, 83% of the respondents were female, according to the characteristics of the profession. The gender variable is not directly related to the acquisition of the syndrome and the female gender can be considered an inhibiting agent of the action of aggressors.<sup>17</sup> In our study, both sexes presented SB (8.5% female and 57.4% male).

In this study, 74.5% and 93.7% of the professionals presented high marks for emotional exhaustion and depersonalization, respectively, and 93.6%, low for professional achievement. Our findings are much higher than reported in the literature, in which 21.3% and 32.8% had high marks for emotional exhaustion and depersonalization, respectively and 26.2%, low rating for professional achievement.<sup>15</sup> These findings suggest the existence of emotional and physical wear and tear of professional to meet the needs of hospitalized patients.

Employees and statutory labor regime are governed by labor laws that differ according to pay, vacation and benefits. Such differences were observed in the production of an organizational setting, with emphasis on cooperation, integration and participation of clinical activity and may be the triggering factor for SB in those under the CLT regime.<sup>18</sup> In our study there was a higher percentage of employees than statutory labor regime's staff (63.8% and 32.1%, respectively); as well as those referred to SB (42.5% and 23.4%, respectively).

The 12 hours of work regime may influence SB's development, since the excessive workload leads to feelings of not achieving effective work and detachment of the patient.<sup>14</sup> This work overload is also due to the insufficient number of scaled professional regarding required labor demand.<sup>15</sup> In our study, 44.7% of employees worked at the day shift and 31.9% worked at night. There was a statistical significance between the 12-hour working regime and the SB in our study ( $p = 0.031$ ).

The higher the educational level, the higher the propensity to SB.<sup>15</sup> In our study, most professionals completed high school (68.1%), and 44.7% had the SB. These findings lead us to question ourselves whether the fact of belonging to a lower professional class, that has a lot of demand with low salaries and taking orders, can influence the acquisition of the Syndrome.

It is known that physical activity is a protective factor for the development of SB as at practicing any activity can vent their energy and discontent, functioning as an outlet of the tensions of the day-to-day. In our study, 59.5% did not practice physical activity and of these 36.2% were rated positively to the SB, corroborating to the literature.<sup>5</sup>

In our study there were significant differences between working 12 hours and SB, but there was not between sex, age, marital status, children, leisure activity and exercise, profession, type of employment, working hours and other employment with Burnout Syndrome.

## CONCLUSION

Professionals who were working under labor laws were more likely to develop the SB, as much as those who worked 12 hours a day and were not physically active. However, in our study, gender did not affect the acquisition of SB.

## REFERENCES

1. Benevides-Pereira AMT. Burnout: quando o trabalho ameaça o bem estar do trabalhador. 2ª ed. São Paulo: Casa do Psicólogo; 2002.
2. Ezaías GM, Gouveia PB, Haddad M do CL, Vannuchi MTO, Sardinha DSS. Síndrome de burnout em trabalhadores de saúde em um hospital de média complexidade. *Rev Enferm UERJ*. 2010;18(4):524-9.
3. Franco GP, Barros ALBL, Nogueira-Martins LA, Zeitoun SS. Burnout in nursing residents. *Rev Esc Enferm USP*. 2011;45(1):12-8.
4. Panizzon C, Hecker Luz AM, Fensterseifer LM. Estresse da equipe de enfermagem de emergência clínica. *Rev Gaúcha Enferm*. 2008;29(3):391.
5. Ezaías GM, Haddad M do CL, Vannuchi MTO. Manifestações psico-comportamentais do burnout em trabalhadores de um hospital de média complexidade. *Rev Rene*. 2012;13(1).
6. Trindade L de L, Lautert L, Beck CLC. Coping mechanisms used by non-burned out and burned out workers in the family health strategy. *Rev Lat Am Enfermagem*. 2009 Oct;17(5):607-12.
7. Paschoalini B, Oliveira MM, Frigério MC, Dias A, Santos FH dos. Efeitos cognitivos e emocionais do estresse ocupacional em profissionais de enfermagem. *Acta Paul Enferm*. 2008;21(3):487-92.
8. Meneghini F, Paz AA, Lautert L. Fatores ocupacionais associados aos componentes da síndrome de burnout em trabalhadores de enfermagem. *Texto Contexto Enferm*. 2011;20(2):225.
9. Borges LO, Argolo JCT, Pereira A, Machado EAP, Silva W. A síndrome de burnout e os valores organizacionais: um estudo comparativo em hospitais universitários. *Psicol Reflex Crit*. 2002;15(1):189-200.
10. Mallmann CS, Palazzo LS, Carlotto MS, Castro Aerts DRG de. Fatores associados à síndrome de burnout em funcionários públicos municipais. *Psicol Teor Prat*. 2009;11(2):69-82.
11. Rosa C, Carlotto MS. Síndrome de burnout e satisfação no trabalho em profissionais de uma instituição hospitalar. *Rev SBPH*. 2005;8(2):1-15.
12. Pereira CA, Miranda LCS, Passos JP. The occupational stress of the nursing team in closed sector. *J Res Fundam Care Online* [periódico na Internet]. 2009 [acessado 2014 Jan 28];1(2):196-202. Available from: <http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/346/331>.
13. Raggio B, Malacarne P. Burnout in intensive care unit. *Minerva Anesthesiol*. 2007;73(4):195-200.
14. de Oliveira PR, Tristão RM, Neiva ER. Burnout e suporte organizacional em profissionais de UTI-Neonatal. *Edu Pro C e T* [periódico na Internet]. 2006 [citado 2014 Jan 27]; 1(1):27-37. Available from: <http://www.paulomargotto.com.br/documentos/BURNOUT.pdf>.
15. Jodas DA, Haddad MCL. Síndrome de burnout em trabalhadores de enfermagem de um pronto socorro de hospital universitário. *Acta Paul Enferm*. 2009;22(2):192-7.
16. Moreno F, Gil GP, Haddad MCL, Vannuchil MTO. Estratégias e intervenções no enfrentamento da síndrome de burnout. *Rev Enferm UERJ*. 2011; 19(1):140-5.
17. Cimiotti JP, Aiken LH, Sloane DM, Wu ES. Nurse staffing, burnout, and health care-associated infection. *Am J Infect Control* [periódico na Internet]. 2012 [citado 2014 Jan 30]; 40:486-90. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3509207/pdf/nihms387953.pdf>.
18. Mealer M, Burnham EL, Goode CJ, Rothbaum B, Moss M. The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses. *Depress Anxiety* [periódico na Internet]. 2009 [citado 2014 Jan 29]; 26(12):1118-26. D Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2919801/pdf/nihms211783.pdf>.

Received on: 20/12/2014

Reviews required: No

Approved on: 15/06/2016

Published on: 10/04/2017

**Author responsible for correspondence:**

Larissa Santi Fernandes  
Travessa Lourenço Vernini, 55  
Jardim Paraíso – Botucatu/SP  
E-mail: lalaser@gmail.com  
ZIP-code: 18610-210