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Prevalence of burnout syndrome in nurses at a public hospital

Prevalência da síndrome de Burnout em enfermeiros de um hospital público

Prevalencia del síndrome de Burnout en enfermeras de un hospital público

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ABSTRACT

Objective: to identify the prevalence and dimensions of Burnout syndrome, and to analyze associated factors. **Method:** this cross-sectional study with 171 nurses at a public hospital was conducted in 2020 using the MBI-HSS to estimate prevalence of Burnout syndrome, indicated by alteration in any of its dimensions. **Results:** 9.9% of participants displayed high emotional exhaustion (EE), 7% showed strong depersonalization (DE) and 59.1% reported poor professional achievement (PPA). EE and DE were associated with a statutory contract type and receiving two or more job incentives. Little educational activity was associated with EE and childlessness, with PPA. **Conclusion:** prevalence of Burnout syndrome was high (62.6%). This underlines the importance of preventive actions and early diagnosis that contribute to preserving these workers' physical and mental health and thus to improving the quality of care.

Descriptors: Nurses; Occupational Distress; Burnout, Professional; Burnout, Psychological.

RESUMO

Objetivo: identificar a prevalência da Síndrome de Burnout (SB), suas dimensões e analisar os fatores associados. **Método:** estudo transversal, realizado com 171 enfermeiros de um hospital público, em 2020. Foi utilizado o MBI-HSS para estimar a prevalência da SB, considerando sua presença quando verificada alteração em pelo menos uma de suas dimensões. **Resultados:** 9,9% dos participantes apresentaram alta exaustão emocional (EE), 7% alta despersonalização (DE) e 59,1% baixa realização profissional (RP). EE e DE foram associadas a modalidade contratual do tipo estatutário e recebimento de dois ou mais incentivos no exercício do trabalho. Pouca realização de atividades educativas foi associada a EE e a ausência de filhos a baixa RP. **Conclusão:** evidenciou-se uma alta prevalência da SB (62,6%). Reforça-se a importância de ações preventivas e de diagnóstico precoce que contribuam para a preservação da saúde física e mental desses trabalhadores e, consequentemente, para melhoria da qualidade da assistência.

Descritores: Enfermeiras e Enfermeiros; Estresse Ocupacional; Esgotamento Profissional; Esgotamento Psicológico.

RESUMEN

Objetivo: identificar la prevalencia de Síndrome de Burnout (SB), sus dimensiones y analizar los factores asociados. **Método:** estudio transversal, realizado junto a 171 enfermeros de un hospital público, en 2020. Se utilizó el MBI-HSS para estimar la prevalencia de SB, considerando su presencia cuando hay alteración en, al menos, una de sus dimensiones. **Resultados:** 9,9% de los participantes tenían alto agotamiento emocional (EE), 7% alta despersonalización (DE) y 59,1% baja realización profesional (RP). EE y DE se asociaron con la modalidad contractual del tipo estatutario y tener dos o más incentivos en el ejercicio del trabajo. La realización de pocas actividades educativas se asoció con la EE y la ausencia de niños con la baja RP. **Conclusión:** hubo una alta prevalencia de SB (62,6%). Se destaca la importancia de acciones preventivas y de diagnóstico temprano que contribuyan a la preservación de la salud física y mental de estos trabajadores y, en consecuencia, a mejorar la calidad de la atención.

Descriptores: Enfermeras y Enfermeros; Estrés Laboral; Agotamiento Profesional; Agotamiento Psicológico.

INTRODUCTION

A number of studies related to Nursing[1,2] have described the precarious working conditions and work-related stressors that cause physical and mental wear out in these workers. Hospitals are unhealthy environments highly propitious for physical and mental ailments. In them, nurses are exposed to several situations of occupational stress and risk such as overcrowding, insufficient material and human resources, overload, interpersonal conflicts at work, bonding with patients and family members in situations of suffering and death, unsatisfactory remuneration, and low social recognition of the profession[3].

Among the disorders caused by stressful situations in the Nursing field, Burnout Syndrome (BS) is an occupational syndrome that affects these workers worldwide[3,4]. This fact generates harms to employers, to the economy and to the public coffers[3], evidencing a severe problem both in the field of workers' health and for the health services[5,6].

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BS is a multicausal psychological disorder, which emerges as the individual's response to prolonged exposure to stressors at work resulting from the imbalance between demand and the worker's resoluteness[7-10]. Health and education professionals are those most at risk for developing BS due to the demands specific to the services of these categories, such as more constant, close and emotional contact with other individuals in their work environment[8], which makes the demands at work exceed individual's adaptation and control abilities[11-13].

BS is evaluated through the identification of three dimensions: Emotional Exhaustion (EE), which refers to workers' physical and psychological exhaustion to deal with stressful situations at work; Depersonalization (DE), evidenced when workers distance themselves from social relationships in the work environment; and low Professional Fulfillment (PF), present when professionals tend to negative self-assessments[7-9].

A number of studies point to a variety of factors associated with BS. The individual factors, represented by the sociodemographic context and the workers' subjectivity, are not considered triggers, but they can act as facilitators or inhibitors of the stressors[14-16], among the most discussed factors we can mention age, gender, schooling and working time[17,18]. In turn, the organizational factors are determined by the stressful events in the workplace, such as pressure at work, lack of autonomy, overload, relationship and communication problems, conflicting role and insufficient resources in the service, as the fewer resources offered by the organization, the greater the chance of developing BS[14-16,18].

Despite being a global phenomenon and the relevance of BS studies in the reality of Nursing, reflected in the increase in research on the topic, the scarcity of publications on BS in nurses in Brazil is still a reality[19] and there is still no consensus on the association of these and other factors with BS, whether as a precursor, a symptom or a consequence[18]. Given the above, the current study is justified for expanding understanding of the factors that can contribute to the predisposition for BS in hospital nurses, assisting in the elaboration of preventive and interventional measures aimed at preventing Burnout early in time, contributing benefits to workers' health and to care quality.

The objective of this study was to identify the prevalence of BS and its dimensions, as well as to analyze the associated factors.

METHOD

This is an observational and cross-sectional study conducted with nurses from a public hospital in the state of Rio de Janeiro. The institution is characterized as a medium-sized hospital and offers care in more than 30 medical specialties, maintaining integrality of its activities within the Unified Health System (*Sistema Único de Saúde*, SUS), particularly in the medium- and high-complexity areas, with outpatient care, offering an outpatient service with 171 offices, and a hospital with 233 active beds, which together add up to an annual mean of 70,000 visits.

All the 186 nurses from the institution, in full professional activity at the data collection moment, were invited to take part in the study: both those working in the assistance sectors, such as the outpatient service, medical and surgical clinics, adult and neonatal intensive care center, surgical center and maternity and those in sectors without direct assistance to patients, such as central sterile supply department, permanent education, and leadership/supervision positions. The researcher, seven professionals absent due to vacation or any other type of absence during the data collection period were excluded, as well as 17 professionals who did not answer the questionnaire after three contact attempts, totaling 171 participants.

Recruitment of the participants was performed via email and *WhatsApp,* by means of an invitation letter explaining the study. In the initial period, before the COVID-19 pandemic, in-person approaches in the different services were made in order to inform and sensitize the professionals to participate in the study. Data collection took place by applying an online questionnaire between February and August 2020. With the intention of reaching the ideal number of participants, the option to answer the printed questionnaire was offered.

The questionnaire was prepared in the *Google Forms* platform, in two modules. Module I consisted in investigating the sociodemographic variables and those related to training and to the job (listed in Table 1). In turn, Module II consisted in measuring BS by using the *Maslach Burnout Inventory-Human Services Survey* (MBI-HSS).

MBI-HSS has 22 items divided into three dimensions: emotional exhaustion (nine items), depersonalization (eight items) and personal fulfillment (five items). In this study, the score system in a Likert type scale suggested by Tamayo (1997)[20] was used, in the Brazilian adaptation of the instrument. This scale varies from 1 to 5, where 1 corresponds to "Never", 2 is "A few times a year", 3 is "A few times in the month", 4 is "A few times in the week", and 5 is "Every day". The MBI questionnaire used in this research presented a Cronbach's Alpha value of 0.78, showing that this instrument has satisfactory internal consistency.

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To analyze the MBI-HSS results, the classification criterion suggested by Shirom (1989)[21] was used, which considers that individuals with a mean equal to or greater than 4 in the answer options related to the EE and DE dimensions, evaluated separately, which corresponds to "A few times in the week" on the Likert scale, are at high risk of being affected by BS. For the symptoms related to the PF dimension, this condition was identified when such mean was less than or equal to 4[6].

In this study, it was decided to consider presence of Burnout when there was a change in any of the dimensions, that is, presence of a high EE level, a high DE level or a low PF level, according to the criterion set forth by Grunfeld *et al.* (2000)[22]. Choice of such a criterion is based on the observation that altered scores for any of the dimensions should be valued in order to prevent BS worsening and also to provide comparisons with other studies. It is noted that MBI is considered a valid instrument to identify BS; however, the need for diagnostic confirmation through clinical methods is indicated[9].

A descriptive analysis of the distribution and prevalence values of the variables referring to each of the dimensions (EE, DE and PF) and to the presence of BS was performed. In order to identify the association of the exposure and outcome variables, the chi-square test was performed and, when necessary, Fisher's exact test, considering those with $p \leq 0.05$ as statistically significant. Poisson regression was employed to calculate the unadjusted and adjusted odds ratios with their respective 95% confidence intervals. In order to elaborate the adjusted model, the variables that presented $p \leq 0.20$ in the bivariate analysis were included. The variables that obtained $p < 0.05$ were kept in the final model.

The Mann-Whitney test was performed to analyze the association of performance time with the dimensions and with development of BS. The associations that obtained *p*-values≤0.05 were considered statistically significant.

The data collected were organized in a database using Microsoft Excel. The descriptive analyses, the chi-square test and the Mann-Whitney test were performed in the *Statistical Package for the Social Sciences* (SPSS) program, version 20, and the Poisson regression was performed in Stata 16.

The research protocol followed the rules established in Resolution No. 466/2012 of the National Health Council (*Conselho Nacional de Saúde*, CNS), being approved by the Committees of Ethics in Research with Human Beings of the researchers' institution of origin and of the institution that was the study locus. All the nurses agreed with the Free and Informed Consent Form (FICF).

RESULTS

A total of 171 valid questionnaires were collected for data analysis, totaling a sample which corresponded to 87.24% of the nurses from the public hospital under study. Regarding the sociodemographic and socio-occupational characteristics, the research participants were predominantly women (84.2%), married or living with a partner (67.8%) and had at least one child (91.8%). Their age varied between 26 and 69 years old (M=40.41, SD=9.96), with 49.7% between 35 and 49. In relation to the training level, the professionals reported having graduate studies (97.4%) and 68.2% of the participants had more than 10 years of study.

The socio-occupational data indicate that the mean performance time in the health area was 16.11 years, varying from 1 to 46 (SD=9.68). In the hospital, the professionals' working time varied from 0 to 44 years, with a mean of 6.95 (SD=9.42). More than half of the professionals had only one employment contract (60.7%), worked on-duty (73.1%), were statutory (53.2%), received two or more incentives in the exercise of their work, earned between 6 and 10 minimum wages (54.4%), had a weekly hour load of 30 hours in the hospital (46.8%) and those with more than one job (38%) had a weekly hour load of at least 60 hours (35.7%).

Regarding the BS dimensions, 9.9% of the participants presented high levels in EE, 7% showed high DE and 59.1% obtained low PF scores. Table 1 shows the statistical results corresponding to the investigation of the association between the independent variables and the BS dimensions. Both dimensions (EE and DE) presented a significant association for the professionals with the statutory contractual modality (p=0.011; p=0.006) and for those who received two or more incentives in the exercise of their work (p=0.055; p=0.029). Undergoing few educational activities in their work process was associated with EE (p=0.004).

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TABLE 1: Prevalence of the BS dimensions[2] and associated factors among the nurses from a public hospital (n=171). Rio de Janeiro, RJ, Brazil, 2020.

Variable	N	EE			DE			PF		
		f	p%	*p*	f	p%	*p*	f	p%	*p*
Gender										
Female	144	13	9.0	0.315	8	5.6	0.100	86	59.7	0.686
Male	27	4	14.8		4	14.8		15	55.6	
Family arrangement[(2)]										
Married or lives with a partner	116	12	10.3	0.798	10	8.6	0.342	65	56.0	0.242
Lives alone, with relatives or friends	55	5	9.1		2	3.6		36	65.5	
Children[(2)]										
Yes	98	12	12.2	0.243	9	9.2	0.199	47	48.0	**0.001**
No	73	5	6.8		3	4.1		54	74.0	
Age[(1) / (2)]										
26-40 years old	106	10	9.4	0.726	8	7.5	1.000	63	59.4	0.928
41+ years old	63	7	11.1		4	6.3		37	58.7	
Training time[(1)]										
≤ 10 years	54	5	9.3	0.826	4	7.4	1.000	37	68.5	0.080
> 10 years	116	12	10.3		8	6.9		63	54.3	
No. of employment contracts[(2)]										
One	103	11	10.7	0.691	9	8.7	0.367	58	56.3	0.367
Two or more	68	6	8.8		3	4.4		43	63.2	
Highest training level[(2)]										
Lato sensu undergraduate or graduate studies	119	11	9.2	0.645	9	7.6	1.000	73	61.3	0.359
Stricto sensu graduate studies	52	6	11.5		3	5.8		28	53.8	
Weekly hour load (adding up all the contracts)[(2)]										
Up to 36h	90	8	8.9	0.628	6	6.7	0.850	51	56.7	0.502
40h or more	81	9	11.1		6	7.4		50	61.7	
Weekly hour load in the institution[(2)]										
Up to 36h	143	14	9.8	1.000	9	6.3	0.418	86	60.1	0.518
40h	28	3	10.7		3	10.7		15	53.6	
Works in shifts										
Yes	125	11	8.8	0.400	8	6.4	0.736	79	63.2	0.070
No	46	6	13.0		4	8.7		22	47.8	
Employment contract modality[(2)]										
CLT	80	3	3.8	**0.011**	1	1.2	**0.006**	45	56.2	0.483
Statutory	91	14	15.4		11	12.1		56	61.5	
Receives some incentive in the exercise of their work[(2)]										
One	67	3	4.5	**0.055**	1	1.5	**0.029**	40	59.7	0.892
Two or more	104	14	13.5		11	10.6		61	58.7	
Wage[(2)]										
Up to 6 MWs	55	7	12.7	0.402	6	10.9	0.204	31	56.4	0.621
More than 6 MWs	116	10	8.6		6	5.2		70	60.3	
Frequency of the activities performed[(2)]										
Care:										
Average/Low	71	5	7.0	0.286	2	2.8	0.126	44	62.0	0.515
High	100	12	12.0		10	10.0		57	57.0	
Administrative/ Managerial:										
Average/Low	63	5	7.9	0.503	5	7.9	0.762	40	63.5	0.368
High	108	12	11.1		7	6.5		61	56.5	
Educational:										
Average/Low	105	16	15.2	**0.004**	9	8.6	0.374	64	61.0	0.527
High	66	1	1.5		3	4.5		37	56.1	
Research: Average/Low	113	14	12.4	0.135	8	7.1	1.000	67	59.3	0.933
High	58	3	5.2		4	6.9		34	58.6	
Performance sector[(1)]										
Head/Supervisor	14	1	7.1	1.000	0	0	0.602	10	71.4	0.317
Other sectors	156	16	10.3		12	7.7		90	57.7	
Answered before or during the pandemic										
Before	116	4	7.3	0.422	2	3.6	0.342	31	56.4	0.621
During	55	13	11.2		10	8.6		70	60.3	

Notes: [(1)] Variable with missing data; [(2)] In order to investigate the association of the variables with the BS dimensions, it was decided to group the categories of some variables due to the low frequency found; Values in bold type are statistically significant.
N – Population; f - Frequency of the event; p% - Prevalence.

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Presence of children was the only variable that had a significant association with PF, with absence of children being significantly associated with low PF.

The analysis of the association of working time with the dimensions and with development of BS, by the Mann-Whitney test, indicated that the working time in the institution exerts an effect on the increase of EE (p=0.036), on the reduction of PF (p=0.030) and on development of BS (p=0.010).

62.6% prevalence of BS was identified, considering the presence of alterations in any of the dimensions (high EE, high DE or low PF) among the nurses studied. It is noted that 64 professionals, which accounts for 37.4% of the sample, did not present changes in any of the dimensions.

Table 2 presents the prevalence and the prevalence ratio of BS according to the criteria set forth by Grunfeld *et al.* (2000)[22] and the associated factors, the *p*-value and the confidence interval for each factor. In the univariate Poisson regression, the only variable that presented a statistically significant association with BS was presence children, with their absence being significantly associated with development of BS (p=0.001). The individuals who have children present a 32% lower probability of BS than those without children (PR=0.68; 95%CI=0.54–0.85, *p*=0.001). Training time presented a marginally significant difference (p=0.054).

TABLE 2: Prevalence (p%) and prevalence ratio (PR) of Burnout Syndrome, according to the variables selected, among the nurses from a public hospital (N=171). Rio de Janeiro, RJ, Brazil, 2020.

VARIABLE		BS					
		N	f	p%	PR	CI (95%)	*p*
Gender	Female	144	90	62.5	1		0.964
	Male	27	17	63.0	1	0.73 – 1.38	
Family arrangement[2]	Married or lives with a partner	116	70	60.3	1		0.368
	Lives alone, with relatives (father, mother, child) or friends	55	37	67.3	1.11	0.88 – 1.41	
Children[2]	No	73	56	76.7	1		**0.001**
	Yes	98	51	52.0	**0.68**	**0.54 – 0.85**	
Age[1] / [2]	26-40 years old	106	67	63.2	1		0.867
	41+ years old	63	39	61.9	0.98	0.77 – 1.25	
Training time[1]	≤ 10 years	54	39	72.2	1		**0.054**
	> 10 years	116	67	57.8	0.80	0.64 – 1.00	
Highest training level[2]	*Lato sensu* undergraduate or graduate studies	119	77	64.7	1		0.403
	Stricto sensu graduate studies	52	30	57.7	0.90	0.68 – 1.17	
No. of employment contracts[2]	One	103	62	60.2	1		0.424
	Two or more	68	45	66.2	1.09	0.87 – 1.39	
Weekly hour load (adding up all the contracts)[2]	Up to 36h	90	54	60.0	1		0.464
	40h or more	81	53	65.4	1.09	0.86 – 1.37	
Weekly hour load in the institution[2]	Up to 36h	143	90	62.9	1		0.828
	40h	28	17	60.7	0.96	0.70 – 1.33	
Works in shifts	Yes	125	83	66.4	1		0.121
	No	46	24	52.2	0.78	0.58 – 1.06	
Employment contract modality[2]	CLT	80	47	58.8	1		0.339
	Statutory	91	60	65.9	1.12	0.89 – 1.42	
Receives some incentive in the exercise of their work[2]	One	67	41	61.2	1		0.767
	Two or more	104	66	63.5	1.04	0.81 – 1.32	
Wage (adding up all the contracts)[2]	Up to 6 minimum wages	55	34	61.8	1		0.889
	More than 6 minimum wages	116	73	62.6	1.02	0.79 – 1.31	
Frequency of the activities performed[2]							
Care:	Average/Low	71	45	63.4	1.02		0.854
	High	100	62	62.0	1	0.81 – 1.29	
Administrative/Managerial:	Average/Low	63	42	66.7	1.10		0.390
	High	108	65	60.2	1	0.88 – 1.40	
Educational:	Average/Low	105	70	66.7	1.19		0.180
	High	66	37	56.1	1	0.92 – 1.53	
Research:	Average/Low	113	71	62.8	1.01		0.923
	High	58	36	62.1	1	0.79 – 1.29	

Notes: [1] Variable with missing data. [2] In order to investigate the association of the variables with the BS dimensions, it was decided to group the categories of some variables due to the low frequency found. Values in bold type are statistically significant.
N - Population; f - Frequency of the event; p% - Percentage; PR – Prevalence Ratio; CI - Confidence Interval.

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Performed using Poisson regression and controlled for gender, the multivariate regression analysis showed that the factors significantly associated with BS were the following: absence of children (PR=0.66; 95%CI=0.52 – 0.83, p<0.001) and working on-duty (PR=0.75; 95%CI=0.56 – 0.99, p=0.050) (Table 3).

TABLE 3: Unadjusted prevalence ratio (PR_{Unadj}) and Adjusted prevalence ratio (PR_{Ad}) according to factors associated with Burnout Syndrome. Rio de Janeiro, RJ, Brazil, 2020.

VARIABLE	PR_{Unadj}	*p*	CI (95%)	PR_{Ad}*	*p*	CI (95%)
Children						
No	1			1		
Yes	0.68	**0.001**	**0.54 – 0.85**	0.66	**<0.001**	**0.52 – 0.83**
Works in shifts						
Yes	1			1		
No	0.78	0.121	0.58 – 1.06	0.75	**0.050**	**0.56 – 0.99**

Notes: *Controlled for gender.
Values in bold type are statistically significant.
PR_{Unad} - Unadjusted Prevalence Ratio; CI - Confidence Interval; PR_{Ad} – Adjusted Prevalence Ratio

DISCUSSION

The 62.6% prevalence of BS identified in this study was higher than that found in other studies carried out with Oncology nurses from a hospital in São Paulo[23], intensive care nurses from a large city in Bahia[24] and intensive care nurses from five Brazilian capital cities[25]. These studies identified percentages of 55.2%, 53.6% and 45.3%, respectively, also considering the criteria set forth by Grunfeld *et al.* (2000)[22], that is, Burnout was classified by altered levels in at least one of the syndrome's dimensions.

Following the criteria established to classify each of the Burnout syndrome dimensions, high EE was found in 9.9% of the professionals, 7.0% presented high DE levels and 59.1% had low PF levels. These values were similar to those found in other studies[24,26], which also used MBI to assess the syndrome's dimensions in Nursing professionals from Brazilian public hospitals.

Among the professionals there was predominance of women, married or living with a partner, with a mean age of 40.41 years old (SD=9.96) and with children. The fact that both the current research and other studies related to Nursing found results with female predominance supports the fact that the profession is historically linked to charitable work, performed essentially by women. However, the typically female concentration in the Nursing profession has increasingly been giving way to men in this category[27].

Considering the socio-occupational data, most of the participants had only one employment contract, worked under statutory regime, earned between 6 and 10 minimum wages, worked on-duty, with a weekly hour load of 30 hours in the institution, and most of those with more than one contract (39.8%) had a weekly hour load that exceeded 60 hours. It is noted that working on shifts that exceed 40 regular hours can cause harms to the body due to lost nights of sleep and greater work overload[4]; however, there was no significant association between working hours and BS in this study.

The male professionals presented higher EE and DE percentages, although there were no statistically significant differences for the “gender” variable in this study. Results of a study carried out with Nursing professionals from three medium-/large-sized hospitals in Minas Gerais[28] and a meta-analysis of 183 studies on the relationship between gender and BS[29], indicated that men presented more depersonalization in relation to women. Possibly, one of the reasons can be related to the fact that Nursing requires relational and emotional skills, which are little encouraged in men, in addition to the low social recognition of the profession and to the low remuneration. This makes men have a feeling of frustration and incompetence in relation to the role of providers promoted by the macho culture[29].

Having a partner or not did not present any association with the prevalence of BS or its dimensions. Absence of children proved to be significantly associated with low values in the PF dimension (p=0.001) and with BS ($p \leq 0.001$). There is no consensus in the literature regarding the fact that having children is a protective or triggering factor for BS[30] since, on the one hand, fatherhood/motherhood can contribute to better emotional balance, acting as a protective factor against BS[31] and, on the other hand, it can be negatively related due to the occupational and personal overload, which contributes to increased stress, favoring development of the syndrome[32].

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Although there was no significant difference, a higher BS percentage was identified among the professionals with less training time. Younger and recently graduate professionals are more affected by BS, when compared to their older counterparts with more years of study[33]. This is possibly because longer experience allows for a feeling of confidence and satisfaction with their own work performance to be strengthened as the challenges are overcome, making professionals more self-confident[33,34].

In this research, the dimensions and BS were not associated with the number of employment contracts or with the weekly hour load. However, in those with two or more jobs, low PF and a higher percentage of BS were observed, and those with a weekly hour load of more than 40 hours a week had higher EE and DE levels, low PF and a higher BS index. These results are in agreement with the literature studied, which points out that professionals with high hour loads and double working hours are subjected to greater physical and emotional exhaustion, which are predictors of the syndrome[4,35].

Contrary to what was verified in another study, in which Nursing professionals with a statutory type of contract presented lower incidence of Burnout[36], it was observed that having a contractual modality of the statutory type and receiving one or more incentives in the exercise of their work were significantly associated with development of high EE and DE levels (p=0.011, p=0.006 and p=0.055, p=0.029, respectively).

It is assumed that stability in the employment relationship makes professionals more intensely involved with their workplace, and the absence of expectations for changes can explain the increase in EE among their workers with a statutory type of contract[28]. In addition to that, professional stability may be related to career interruption or low professional growth, as many professionals resist looking for other job positions, either in the work institution itself or in the labor market[34].

In statutory professionals, a mean working time in the institution of 10.91 years was observed, a value that is significantly higher than the mean working time of nurses with a CLT regime, which was 2.44 years. This may explain the association between the statutory regime and high EE and DE levels, as longer working time in the institution exerted an effect on the increase in EE and on the reduction in PF (p=0.036 and p=0.030, respectively), as well as on the development of BS (p=0.010).

The sum of the work routine with the everyday demands and insufficiency of resources can explain this association[37]. The coping mechanisms in relation to these situations may wither over time, favoring the increase of EE, DE and low PF[28].

The low frequency in terms of undergoing educational activities in the work routine was associated with high EE, indicating a higher risk for BS. The high demand associated with lack of sufficient human resources is possibly related to the increase in EE[14,16,18], in addition to making it impossible to carry out nurses' entire work process, including planning and practice of educational actions[38], reason why the professionals end up prioritizing assistance to the detriment of educational activities.

The results of this paper are important to encourage other studies on BS in nurses working in hospitals, given that such scenarios, especially those in the public sectors of our country, face a reality of underfunding in health and its reflexes in the work environment.

The comparison of research results on Burnout must be carried out with caution, considering the existence of several instruments for measuring the syndrome, which may constitute a study limitation. It is noted that MBI-HSS is the instrument most used by the national and international scientific community to measure the prevalence of BS, showing high reliability regardless of the sample[39]. Such instrument allows assessing in a more thorough way how workers experience their job according to all three Burnout dimensions, enabling identification of BS in the professionals.

Study limitations

As limitations of this research, we can think of a possible selection bias, as it failed to include workers who were on leave and who could be the most affected by BS, which could characterize the "healthy worker effect". This is a possibility in cross-sectional studies on occupational health. However, 84% participation was obtained from the hospital's nurses, which can be considered a representative sample.

CONCLUSION

Although no significant associations were identified between most of the variables studied and presence of BS and its dimensions in this study, there was significant prevalence of BS, as 62.6% of the professionals under study presented changes in at least one of the dimensions measured. The need to develop studies on the theme is highlighted, which assist in the elaboration of measures that prevent BS development, considering that hospitals are unhealthy environments with work routines marked by situations of occupational stress and risk.

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A more in-depth analysis by the management is recommended about the possible causes of BS, so that strategies are sought to reduce the main work-related stressors. Such interventions may include the creation of spaces that provide opportunities for the workers' active participation in discussions about organization of the work process and offering training courses and permanent education aimed at care, as knowledge possession prevents anxiety and insecurity in the workers, implying greater autonomy and preventing occupational accidents. Efforts should not be restricted to management, workers must make their voices heard, seeking better working conditions, constantly after professional qualification, in addition to seeking to perform activities that make them feel good and help them cope with work stressors.

It is believed that, in this way, there may be an improvement in quality of life at work, with development of preventive actions and early diagnosis that contribute to preservation of the physical and mental health of these workers and, consequently, to improve care quality.

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