Revista Brasileira de Enfermagem
REBEn

SUPPLEMENTARY EDITION 3
PSYCHIATRIC NURSING AND MENTAL HEALTH

ORIGINAL ARTICLE

Influence of burnout syndrome on the quality of life of nursing professionals: quantitative study

Influência da síndrome de burnout na qualidade de vida de profissionais da enfermagem: estudo quantitativo

Influencia del síndrome de burnout en la calidad de vida de profesionales de enfermería: estudio cuantitativo

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How to cite this article:
Ribeiro EKA, Santos RC, Araújo-Monteiro GKN, Brandão BMLS, Silva JC, Souto RQ. Influence of burnout syndrome on the quality of life of nursing professionals: quantitative study. Rev Bras Enferm. 2021;74(Suppl 3):e20200298. doi: http://dx.doi.org/10.1590/0034-7167-2020-0298

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Submission: 07-30-2020 **Approval:** 09-15-2020

ABSTRACT

Objective: To estimate the prevalence and factors associated with the burnout syndrome and quality of life among nursing professionals. **Methods:** Cross-sectional, analytical study, developed with 83 professionals in emergency care units in the city of Campina Grande-PB. A questionnaire was used to characterize the sample, the Maslach Burnout Inventory scale and the SF-36. Data was analyzed using descriptive and inferential statistics. **Results:** Most professionals showed low professional effectiveness (78.3; n=65), average depersonalization (53.0%; n=44) and average emotional exhaustion (55.4%; n=46). There was a statistical difference between the scores of the syndrome and the pain (p=0.03), vitality (p=0.04) and social aspect (p=0.03); significant correlation between the syndrome and vitality (p<0.001), mental health (p=0.01) and general quality of life (p=0.04). **Conclusion:** The burnout syndrome has an influence on the outcome of quality of life of nursing professionals, being more prevalent among professionals with older age, high income and among nurses.
Descriptors: Burnout, Professional; Quality of Life; Syndrome; Nursing; Burnout, Psychological.

RESUMO

Objetivo: Estimar a prevalência e fatores associados à síndrome de *burnout* e qualidade de vida entre profissionais de enfermagem. **Métodos:** Estudo transversal, analítico, desenvolvido com 83 profissionais nas unidades de pronto atendimento do município de Campina Grande-PB. Utilizou-se um questionário para caracterização da amostra, a escala *Maslach Burnout Inventory* e a SF-36. Os dados foram analisados mediante estatística descritiva e inferencial. **Resultados:** A maioria dos profissionais apresentou baixa eficácia profissional (78,3; n=65), média despersonalização (53,0%; n=44) e média exaustão emocional (55,4%; n=46). Houve diferença estatística entre os escores da síndrome e da dor (p=0,03), vitalidade (p=0,04) e aspecto social (p=0,03); correlação significativa entre a síndrome e a vitalidade (p<0,001), saúde mental (p=0,01) e qualidade de vida geral (p=0,04). **Conclusão:** A síndrome de *burnout* apresenta influência no desfecho de qualidade de vida de profissionais da enfermagem, sendo mais prevalente entre profissionais com idade mais avançada, renda elevada e entre enfermeiros.
Descritores: Esgotamento Profissional; Qualidade de Vida; Síndrome; Enfermagem; Esgotamento Psicológico.

RESUMEN

Objetivo: Estimar la prevalencia y factores relacionados al síndrome de *Burnout* y calidad de vida entre profesionales de enfermería. **Métodos:** Estudio transversal, analítico, desarrollado con 83 profesionales en las atenciones de emergencia de Campina Grande-PB. Utilizó un cuestionario para caracterización de la muestra, la escala *Maslach Burnout Inventory* y la SF-36. Los datos analizados mediante estadística descriptiva e inferencial. **Resultados:** La mayoría de los profesionales presentó baja eficacia profesional (78,3; n=65), mediana despersonalización (53,0%; n=44) y mediana agotamiento emocional (55,4%; n=46). Hubo diferencia estadística entre los escores del síndrome y del dolor (p=0,03), vitalidad (p=0,04) y aspecto social (p=0,03); correlación significativa entre el síndrome y la vitalidad (p<0,001), salud mental (p=0,01) y calidad de vida general (p=0,04). **Conclusión:** El síndrome de *Burnout* presenta influencia en el desfecho de calidad de vida de profesionales de la enfermería, siendo más predominante entre profesionales con edad más avanzada, renta elevada y entre enfermeros.
Descriptores: Agotamiento Profesional; Calidad de Vida; Síndrome; Enfermería; Agotamiento Psicológico.

INTRODUCTION

Work is considered to be a source of personal achievement, strengthening interpersonal relationships, satisfying basic human needs and survival[1]. The uniqueness of health work is related to the specificities of the service provided, as it is a relationship between beings with complex needs. In the health service environment, the professional is commonly exposed to dealing with suffering and is challenged to develop political, ethical and technical mechanisms to manage their own suffering under the circumstances[2]. In this sense, the work process among health professionals is constituted by potentially stressful conditions, which can directly affect their health as well as the quality of care provided to users[3].

Occupational stress manifests itself as a public health problem, characterized by injury of a multifactorial cause, resulting from the relationship between the worker and his environment[4]. Nevertheless, continuous exposure to occupational stressful events can cause burnout syndrome (BS), mental and behavioral disorders[5].

BS, in turn, is configured as a series of physical and psychosocial symptoms, among which are fatigue, difficulty in interpersonal relationships, bad mood, irritability, low productivity and absenteeism[6]. Occupational stress, although triggered by multi-causal factors, is closely associated with chronic stress in the workplace and has three dimensions: emotional exhaustion, depersonalization and low professional achievement[7].

Emotional exhaustion comprises a lack of energy and a feeling of exhaustion by emotional resources, while depersonalization involves a state of emotional insensitivity, which implies anxiety, self-centered behavior, demotivation and irritability[6]. With regard to low professional achievement, there is a tendency to negative self-assessment of the work process, professional dissatisfaction and distance from other professionals[8].

The practice of nursing in critical patient care environments can be a source of occupational stress since the professional experiences stressful situations, whether due to an exhaustive workday or unhealthy working conditions, inadequate personal dimensioning and highly complex assistance[9]. A study carried out with nursing professionals in Iran estimated that 36% had symptoms of BS; however, in Brazil, it was found that this percentage was 14.3%[9-10] in research developed in Minas Gerais[11]. Different working conditions, specific assistance and sociodemographic characteristics are factors that influence and justify the disparities in prevalence rates between different countries.

Considering that this problem affects the health of the worker, it can be said that it also affects the quality of life, which translates into a broad concept of personal perception about the sociocultural context, expectations, desires and their interrelationship with the community and work[12]. Thus, evaluating the quality of life of nurses enables reflection on the proposal of measures for their health, which will reflect on the quality of care, satisfaction with life, reduction of stress levels[13] and prevention of BS.

In addition, investigating the relationship between BS and quality of life indices can provide contributions to changes in nursing care, construction of critical reflective processes among managers and professionals and feasibility in adopting strategies that mitigate work overload and dissatisfaction, providing thus, satisfactory levels of mental health in health institutions.

OBJECTIVE

To estimate the prevalence and factors associated with the burnout syndrome and quality of life among nursing professionals.

METHODS

Ethical aspects

The ethical assumptions determined in Resolution 466/12 of the National Health Council clarify that, for the development of research with human beings, it is necessary to appraise an Ethics in Research Committee (ERC). Thus, this study obtained a favorable opinion from the ERC of the Center for Higher Education and Development (CHED).

Study design, period and location

This is a cross-sectional, analytical study with a quantitative approach, carried out in the two Emergency Care Units in the municipality of Campina Grande-PB, developed from January to March 2018. The study was guided by the Strengthening the Reporting of Observational Studies in tool Epidemiology (STROBE).

Population or sample; inclusion and exclusion criteria

The research population was composed of nursing professionals (technicians and nurses) of both sexes and any age, working in the two emergency care units in the municipality of Campina Grande-PB. The sample was non-probabilistic for accessibility, totalling 83 employees.

Nursing professionals over 18 years old, who had worked in the service for at least six months working in the emergency care unit, were included. Those who were absent from the work environment at the time of data collection and those who were diagnosed with BS less than a year ago were excluded — this criterion was adopted to minimize the possibility of emotional destabilization related to unpleasant memories by the professional.

Study protocol

Three instruments were used for data collection: a questionnaire to characterize the sample prepared by the research team, the scale "BS Evaluation - Maslach Burnout Inventory (MBI)" and the Brazilian version of the SF-36 quality of life questionnaire, applied in the sequence described.

The BS rating scale was developed and validated by Christina Maslach. It is a self-assessment scale, in which the subject is asked to evaluate, in seven possibilities, how often he feels a set of feelings expressed in sentences[14]. The version that was applied in this study contains 22 items, being used for health-care professionals (HCP).

The SF-36, on the other hand, is a quality of life assessment questionnaire composed of 36 questions that assess eight different domains: functional capacity; physical aspects; pain; general health status; vitality; social aspects; emotional aspects; and mental health[15].

Previous contact was made with the unit's coordination to perform data collection at a time determined by the service. The professionals were approached and invited to participate in the

research, and the data collection took place at a time and place convenient to the employee.

The analysis of the studied outcome was carried out only at the end of data collection, in order to preserve the anonymity of the participants. In addition, researchers behave around the place of service, to present the results of the research and to clarify measures for the prevention of health problems in nursing workers.

Analysis of results and statistics

The BS scale assessment followed the precepts of its applicability, identifying three conceptual dimensions: emotional exhaustion, professional fulfilment and depersonalization. The definition of BS was characterized by a low score for professional effectiveness and a high score for emotional exhaustion and depersonalization. This variable was determined as a study dependent variable.

The independent variables were extracted from the sample characterization questionnaire (sex, age, marital status, income, number of children, type of residence and professional category), from the facets of quality of life (functional capacity, limitations due to physical aspects, pain, general health status, vitality, social aspects, limitations due to emotional aspects and mental health) and general quality of life (low and high quality of life).

Each facet of quality of life was determined in a score from 0 to 100, and the determination of low and high quality of life was performed by the median cut of the score; and the overall quality of life was determined by the weighted average of the eight facets.

The data were tabulated in Microsoft Excel and analyzed in SPSS, version 25.0, in which they received descriptive statistical treatment through relative and absolute frequencies. The inferential analysis took place between the sample characterization data and the scale domains using Pearson's chi-square test or Fisher's exact test, Spearman's correlation test and Mann-Whitney comparison test, with 0.05 being the value of p adopted for statistical significance. Since the distribution shows a tendency towards non-normality of the data, the non-parametric test was chosen, determined by the Kolmogorov-Smirnov test.

RESULTS

Table 1 shows the relationship between sociodemographic data and BS. It is observed that the syndrome predominated among older individuals (15%; n = 6), women (15.1%; n = 11), nurses (17.1%; n = 7), who do not have relationship (19.5%; n = 8), have children (23.1%; n = 6) and receive more than one salary (14.3%; n = 8).

The analysis of the categories evaluated in BS according to their levels is shown in Table 2, and it is possible to verify that most professionals had low professional effectiveness (78.3; n = 65), average depersonalization (53%; n = 44) and average emotional exhaustion (55.4%; n = 46).

The BS comparison analysis was performed with the classification of each quality of life domain (Table 3). As it is a non-normal distribution, data regarding the median and interquartile range are being displayed, identifying that there is a statistically significant difference between the scores of the syndrome and the median of the domains of quality of life related to pain (p = 0.03), vitality (p = 0.04) and social aspect (p = 0.03).

Table 1 – Association of sociodemographic characteristics with burnout syndrome among respondents, Campina Grande, Paraíba, Brazil, 2018 (N = 83)

Variables	Burnout syndrome		*p* value*
	With syndrome n (%)	Without syndrome n (%)	
Age			
Less than or equal to 37 years	6 (14.0)	37 (86.0)	0.892*
Older than 37 years	6 (15.0)	34 (85.0)	
Sex			
Female	11 (15.1)	62 (84.9)	0.557**
Male	1 (10.0)	9 (90.0)	
Graduation			
Nursing technician	5 (11.9)	37 (88.1)	0.503*
Nurse	7 (17.1)	34 (82.9)	
Marital status			
In a relationship	4 (9.5)	38 (90.5)	0.196*
Single	8 (19.5)	33 (80.5)	
With children			
Yes	6 (11.1)	48 (88.9)	0.190**
No	6 (23.1)	20 (76.9)	
Income			
Up to 1 salary	3 (12.0)	22 (88.0)	0.543**
Greater than 1 salary	8 (14.3)	48 (85.7)	

*Note: * Pearson's chi-square test; ** Fisher's exact test.*

Table 2 – Distribution of burnout syndrome categories according to their levels, Campina Grande, Paraíba, Brazil, 2018 (N = 83)

Variables	Low n (%)	Medium n (%)	High n (%)
Professional effectiveness	65 (78.3)	17 (20.5)	1 (1.2)
Depersonalization	23 (27.7)	44 (53.0)	16 (19.3)
Emotional exhaustion	20 (24.1)	46 (55.4)	17(20.5)

Table 3 – Comparison of quality of life domains with the burnout syndrome score among participants, Campina Grande, Paraíba, Brazil, 2018

Variables	Burnout syndrome score		
	Median	Interquartile range	*p* value*
Functional capacity			
Low functional capacity	21.1	18.3-22.0	0.38
High functional capacity	20.0		
Physical aspect			
Low physical aspect	20.0	18.3-22.0	0.77
High physical aspect	20.0		
Pain			
Light pain	20.6	18.3-22.0	0.03
Heavy pain	19.6		
General health status			
Low general health	20.00	18.3-22.0	0.85
High general health	20.0		
Vitality			
Low vitality	20.3	18.3-22.0	0.04
High vitality	19.3		
Social aspect			
Low social aspect	20.6	18.3-22.0	0.03
High social aspect	19.3		
Emotional aspect			
Low emotional aspect	20.6	18.3-22.0	0.06
High emotional aspect	19.8		
Mental health			
Low mental health	20.6	18.3-22.0	0.09
High mental health	19.8		
Quality of life			
High quality of life	20.6	18.3-22.0	0.14
Low quality of life	20.0		

*Note: * Mann-Whitney comparison test.*

Table 4 – Correlation between the quality of life domains and the burnout syndrome score of the interviewees, Campina Grande, Paraíba, Brazil, 2018

Variables	Burnout syndrome score	
	Correlation coefficient	*p* value*
Functional capacity	-0.149	0.21
Physical limitations	-0.101	0.40
Pain	-0.209	0.07
General health status	-0.044	0.71
Vitality	-0.353	< 0.00
Aspects social	-0.216	0.06
Limitations due to emotional aspects	-0.049	0.68
Mental health	-0.279	0.01
Quality of life	-0.234	0.04

*Note: * Spearman's correlation test.*

When correlating the domain score data related to quality of life with the syndrome score, it was found that there is a negative correlation between the variables, so that the higher the BS score, the lower the participants' quality of life. The correlation was statistically significant between the syndrome with vitality (p <0.001), mental health (p = 0.01) and quality of life (p = 0.04).

DISCUSSION

The sociodemographic profile of the investigated population corroborated other studies that describe nursing as a predominantly female workforce, with children and with some type of relationship[16-19].

BS is more common in females, as shown by a study in São Paulo[9], in which 16% of participating nurses were classified with BS. In another study, carried out in a medium-sized municipality in Minas Gerais, in the Primary Health Care units, a higher prevalence of female professionals was also identified[20]. The data of the present study agree with those evidenced in a research[21] developed in the state of São Paulo, in which the majority of nursing professionals who were part of the sample were female (92%), married (50%) and with children (35%).

Regarding the age of people who were classified as BS, a study carried out in a large university hospital in the city of São Paulo shows that the age group in which BS was higher is between 22 and 29 years old[9]; in another study in the interior of the state of SP, a greater number of young adults working in different Intensive Care Units who had this syndrome was identified[22]. This relationship can be justified by the length of professional practice, suggesting, therefore, that younger professionals were more mentally burdened because they were less experienced and more insecure[23].

The present study shows that exhaustion and depersonalization data showed higher percentages among nurses when compared to technicians. Supporting this result, a study carried out in two Psychosocial Care Centers (CAPS) located in the interior of Piauí showed that, regarding professional exhaustion, nurses (66.67%) were the ones who suffered the most in relation to nursing technicians (33 , 33%); however, when it comes to depersonalization, only 16.67% of both categories showed this result[23].

The literature has presented BS as a common problem among nursing professionals, regardless of their specialty[9,20,24-25]. There was a prevalence of the syndrome among 14.5% of the sample's professionals, diverging from a study carried out with Mexican nurses, which registered the occurrence of the phenomenon in 34.6% of them[26]; however, the data ratify a national survey of nurses in an intensive care unit in which 14.3% had BS[9].

Regarding the assessment of the syndrome according to the levels of the categories, most professionals showed low efficacy, as well as an average level of depersonalization and exhaustion. Given the predominance of average levels, it is clear that participants who have not yet been classified with BS are close to developing it.

The results of a meta-analysis demonstrate the prevalence of high exhaustion and depersonalization, as well as low professional achievement among nurses[27]. In the research carried out in Minas Gerais, nursing workers showed low levels of emotional exhaustion and depersonalization and moderate levels of job satisfaction[11]. These scores can be justified by the precariousness of the work condition, since the nursing professional faces a reality of exhaustive hours, resulting in high rates of job abandonment, decreased quality of care and increased errors[9,28].

In the evaluation of BS compared to the domains of quality of life, it was verified how much one phenomenon affects the other, with a correlation between the domains of quality of life (such as vitality, mental health and quality of life) with BS. In this study, some of these domains were related to BS, in line with other national and international investigations[29-30].

With regard to pain, a review study observed the relationship between burnout and this variable, in which the syndrome is characterized as a risk factor for hospitalizations for musculoskeletal disorders. Among the types of pain, headache, neck-shoulder pain and low back pain are more present in the symptoms and, contextualizing with the public under discussion, who remains in the same position for several hours or experiences critical stress situations, it is inevitable its interference in the levels of quality of life and psychological well-being[31].

Vitality consists of the individual's perception of energy levels and fatigue for daily activities[32]. Observing that this domain had low levels and was related to BS, it is clear that the equivalent symptoms, such as tiredness and demotivation, are included in the three dimensions of the syndrome. Consequently, there may be a decrease in work productivity, absenteeism and changes in the physical and mental health of nurses[33].

The social aspect of quality of life was also related to BS; and, although this condition is relevant to the work environment, its outcomes interfere in the personal lives of nursing professionals[29]. In a meta-analysis review, the authors found that positive affects and social factors were associated with burnout, however an effective social support network, inside and outside work, contributes to coping with the syndrome, reduces levels of tension, anxiety and stress, as well as strengthening the resilience of these workers[34].

The BS exhibited a negative correlation with the mental health domain of the interviewees, pointing out that the highest scores of the syndrome are in those individuals who have more fragility in mental health. This data converges with those of a study carried out with health professionals, in which mental health influenced the highest scores of the syndrome[35].

The installation of BS favors the emergence of diseases that affect mental health, with the presence of symptoms such as fatigue, tiredness, changes in sleep, irritability, isolation, even pathologies such as anxiety, mood disorders and depression[29,35].

These changes hinder the ability to cope with situations of work stress, directly interfering in the quality of life[36].

In this context, it appears that stress is aggravated by BS, negatively influencing the perception of the workplace, leading to trauma, dissatisfaction and demotivation in the performance of their function[35-36]. This data confirms the results exposed in international studies, as in Greece [36], China[37] e Portugal[38].

Investigative studies of the impacts of BS on the quality of life of nursing professionals are relevant, since this professional team offers care that enables the constant experience of episodes of stress and psychological suffering, when dealing with multiple emergency situations, accidents deaths, deaths and overload of duties[36].

Study limitations

The overload of nurses' duties was considered a limitation of the study, as it interferes with the time available for these professionals to carry out the research, requiring greater availability for the researcher to find them again in order to obtain the data.

Contributions to the area of Nursing, Health or Public Policy

Understanding the relationship between BS and nurses' quality of life makes it possible to identify the impacts that work activity has on the professional's performance, physical and mental health, as well as analyzing the factors that most strongly interfere in the quality of life of this individual. In addition, this understanding supports the development of strategies to prevent constant stress situations in professional practice, aiming to avoid the onset of the syndrome and contribute to the quality of life.

CONCLUSION

BS predominated among older professionals, women, nurses, unrelated, who have children and receive a higher income. The syndrome interferes with the quality of life of these professionals, causing a greater impact in the domains of vitality, pain, social aspect and mental health. Furthermore, it is possible to point out that the higher the BS, the lower the quality of life of the participants.

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