

## Burnout syndrome in primary health care professionals: a cross-sectional study


## Síndrome de Burnout em profissionais de saúde atuantes na atenção básica: um estudo transversal

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**ABSTRACT | INTRODUCTION:** Burnout syndrome (BS) is a work-associated chronic stress condition composed of three dimensions: emotional exhaustion, depersonalization, and reduction of professional achievement. Professionals working in the Enlarged Family Health Support Centers (NASF-AB) and Primary Care are exposed to the vulnerabilities of the UHS, insecurity, and conflicts that can lead to professional exhaustion. **OBJECTIVE:** To investigate the prevalence of BS in health professionals working in the NASF-AB of Teresina/PI, in 2019. **METHOD:** This is a quantitative, cross-sectional study conducted with 13 professionals working in NASF-AB. For data collection and investigation, three questionnaires were applied: the first referring to sociodemographic variables; the second was the reduced version of the Job Stress Scale (JSS); and finally, the Maslach Burnout Inventory (MBI) questionnaire. **RESULTS:** Most professionals were female (92.3%) and aged  $\leq 35$  years. In the application of the JSS, 7 professionals (53.8%) presented high demand and 6 (46.2%) low demand; 8 (61.5%) high control and 5 (38.5%) low control; 9 (69.2%) high social support and 4 (30.8%) low social support. In the MBI, 10 professionals (76.9%) presented a high level of emotional exhaustion. Despite this, 11 professionals (84.6%) were professionally accomplished, and all interviewees (100%) obtained low depersonalization. **CONCLUSION:** The study was not able to verify accurately the prevalence of BS in professionals. Nevertheless, these professionals present a high risk of developing BS because they presented high levels of Emotional Demand and Exhaustion in the JSS and MBI questionnaires, respectively.

**KEYWORDS:** Burnout syndrome. Primary Health Care. Health care professionals.

**RESUMO | INTRODUÇÃO:** A Síndrome de Burnout (SB) é uma condição de estresse crônico associada ao trabalho composto por três dimensões: exaustão emocional, despersonalização e redução da realização profissional. Profissionais atuantes nos Núcleos Ampliados de Apoio à Saúde da Família (NASF-AB) e Atenção Básica são expostos às vulnerabilidades do SUS, inseguranças e conflitos que podem levá-lo ao esgotamento profissional. **OBJETIVO:** Investigar a prevalência da SB em profissionais de saúde que atuam no NASF-AB de Teresina/PI, nos anos de 2018 e 2019. **MÉTODOS:** Trata-se de um estudo transversal, quantitativo com aplicação de questionários, conduzido com 13 profissionais atuantes no NASF-AB. Para coleta de dados e investigação foram aplicados três questionários: o primeiro referente a variáveis sociodemográficas; o segundo foi a versão reduzida do questionário Job Stress Scale (JSS); e por fim, o questionário Maslach Burnout Inventory (MBI). **RESULTADOS:** A maioria dos profissionais era do sexo feminino (92,3%) e possuíam idade  $\leq 35$  anos. Na aplicação do JSS, 7 (53,8%) apresentaram alta demanda e 6 (46,2%) baixa demanda; 8 (61,5%) alto controle e 5 (38,5%) baixo controle; 9 (69,2%) alto apoio social e 4 (30,8%) baixo apoio social. No MBI, 10 profissionais (76,9%) apresentaram elevado nível de exaustão emocional. Apesar disso 11 profissionais (84,6%) mostraram-se realizados profissionalmente e todos os entrevistados (100%) obtiveram baixa despersonalização. **CONCLUSÃO:** No estudo não foi possível verificar com precisão a prevalência da SB nos profissionais. No entanto, pode-se concluir que tais profissionais apresentam um grande risco de desenvolverem a SB por apresentarem níveis elevados de Demanda e Exaustão Emocional nos questionários JSS e MBI, respectivamente.

**PALAVRAS-CHAVE:** Burnout. Atenção Primária à Saúde. Profissionais de saúde.

## Introduction

Primary Care (PC) was instituted as a model of comprehensive health care, which was gradually implemented in the UHS in 1988. According to Ordinance N. 2,436, of September 21, 2017, primary care is the set of individual, family and collective health actions that involve promotion, prevention, among other health activities carried out with a multidisciplinary team and directed to the population in a defined territory. Among the teams working in PHC are: Family Health Strategy Teams (FHS), Oral Health Teams, Strategies of Community Health Workers and the Expanded Family Health and Primary Care Centers (NASF-AB)<sup>1,2</sup>.

The NASF-AB was created by the Ministry of Health on January 24, 2008, through GM Ordinance n. 154, aiming to support the FHS teams and expand the actions of Primary Care in Brazil. The NASF-AB consists of a multidisciplinary and interdisciplinary team composed of different health professional categories, who, in an integrated manner, provide clinical, sanitary and pedagogical support to the professionals of the FHS teams<sup>3,4</sup>.

Despite becoming a municipal strategy to expand specialized care, NASF-AB is still considered insufficient given the complexity of Primary Care. Even with institutional support and assistance from the Ministry of Health, the working professionals face many challenges, including the often precarious working conditions associated with significant demand that hinders the care following the perspective of comprehensive care<sup>5,6</sup>.

In this context, professionals working in the NASF-AB are exposed to the needs and vulnerabilities present in the territories of the UHS activity, and the mismatch between training and the requirements in daily life can generate insecurity and conflicts within the work environment, often leading to the suffering and illness of those professionals. In addition, other work stressors can contribute to the onset of professional exhaustion<sup>7,8</sup>.

Professional exhaustion or Burnout Syndrome (BS) was first described in 1974 by the psychologist

Freudenberger to define a state of physical and mental exhaustion linked to work. In 1980, BS was described as a chronic stress condition associated with work composed of three dimensions: emotional exhaustion, depersonalization, and reduction of professional achievement<sup>9,10</sup>.

Despite being a public health problem, the diagnosis and treatment of this syndrome can be hampered, as symptoms are often confused with stress related to problems of personal origin. Moreover, there is a lack of recognition of the own professional about BS and its main symptoms and predisposing factors, which further favors underdiagnosis. Another worrying factor is that the overload and consequent development of BS in those professionals may affect the quality of care and embracement of users who use the health service, which may weaken the work process and the practice of care for that user<sup>11-13</sup>.

Knowledge about the number of professionals working in the NASF-AB with BS is necessary for a better understanding of reality, as well as a possible description of probable factors that may be associated with BS in professionals who agreed to participate in the study. The main objective of this study was to investigate the prevalence of BS in health professionals in the NASF-AB in the municipality of Teresina/PI in the years 2018 and 2019. Also another objective of the research was to promote the perception of the quality of life at work by the interviewed health professional, since the questionnaires applied can bring reflections about their work and the relationship the professional establish with it.

## Materials and methods

### Study characterization and ethical aspects

This is a study of a quantitative methodological approach, a cross-sectional follow-up period. It was developed in the city of Teresina, Piauí, between August/2018 and March/2019. During the research, there were three active NASF-AB, in the north, south, and east regions of the capital.

The study only began after approval by the Research Ethics Committee, by Plataforma Brasil, with the approval date on April 26, 2018, according to resolution 466/12 of the National Health Council, by signing an Informed Consent Form.

### **Sample characterization, inclusion and exclusion criteria**

The sample was chosen by convenience, consisting of health professionals working in the NASF-AB of the city of Teresina/PI. During data collection, which occurred between August/2018 and March 2019, professionals who were present in the Basic Health Units (BHU), where the NASFs-AB operate, were invited to participate in the study and informed of the importance of their participation. At least two visits were required in each NASFs-AB during the period of application of the questionnaires so that all health professionals at work could be approached and invited to participate in the study. As this research focused on verifying the prevalence of BS, it is understood that the participating professionals would not need long-term follow-up, or even during the execution of the research.

Health professionals who had been working in the NASF-AB for at least six months, who showed interest in participating in the research and who agreed to participate voluntarily by signing the Informed Consent Form (ICF) were included in the study. Those who gave up answering the questionnaires applied or who presented them with erasures were excluded.

### **Instruments and data collection**

Data were collected through the application of three questionnaires: 1) the reduced version of the Job Stress Scale (JSS) questionnaire to assess exposure to stress at work; 2) the Maslach Burnout Inventory (MBI) questionnaire to identify signs and symptoms related to Burnout Syndrome. In both questionnaires, the "Likert" scale was used to score and calculate the scores of the dimensions. Finally, a questionnaire was applied to know the sociodemographic characteristics of the population studied.

### **Data analysis**

Categorical variables were described in percentage, based on their frequencies. The scores of the dimensions of the JSS and MBI collection instrument were also expressed as a percentage, based on the scores of each participant in the sample.

To verify the normality of the distribution of the measure obtained by the JSS questionnaire, the Kolmogorov-Smirnov test was applied. In the Kolmogorov-Smirnov test to verify the normality of the distribution of the measurements obtained by the JSS, the dimension that presented ( $p > 0.05$ ) was considered as a normal distribution and the one with ( $p \leq 0.005$ ) was not considered as a normal distribution. To grade the normal dimensions, the cutoff point used was the value of the mean, while the dimension that did not present normal distribution would have as cutoff point the median value.

The quantitative analysis of the data was descriptive, the data were tabulated, processed, and analyzed in the program "Statistical Package for the Social Sciences" (SPSS) version 22.0.

## **Results**

Seventeen professionals were interviewed, of whom 4 were excluded from the research because they presented their questionnaire was incompletely answered, leaving only 13 professionals in the research. Of the 13 professionals (100%) who remained in the survey, 5 (38.5%) were physical therapists, 3 (23.1%) physical educators, 2 (15.4%) psychologists, 2 (15.4%) nutritionists, and 1 (7.7%) social worker. Table 1 presents data regarding the sociodemographic characteristics of the sample.

**Table 1.** Sociodemographic characteristics of the professionals interviewed working in the NASF-AB, Teresina/PI

Variables	Category	N	%
Sex	Female	12	92.3
	Male	1	7.7
Age	≤ 35 years	7	53.8
	> 35 years	6	46.2
Marital status	Married	7	53.8
	Unmarried	4	30.8
	Divorced	2	15.4
Children?	Yes	9	69.2
	No	4	30.8
Profession	Physical Therapist	5	38.5
	Physical Educator	3	23.1
	Psychologist	2	15.4
	Nutritionist	2	15.4
	Social Worker	1	7.7
Time of profession	≤ 10 years	8	61.5
	> 10 years	5	38.5
Degree	Specialization	9	69.2
	Master's	3	23.1
	Graduation	1	7.7
Physical activity	Yes	11	84.6
	No	2	15.4
Which physical activity?	Bodybuilding	6	46.2
	Hike	3	23.1
	Dance	1	7.7
	Pilates	1	7.7
How often do you practice physical activity weekly?	≤ 3 times	7	53.8
	> 3 times	4	30.8

Source: Research data, 2019.

To verify the normality of the distribution of the measure obtained by the Job Stress Scale (JSS), the Kolmogorov-Smirnov test was applied (Table 2), the dimensions Demand and Social Support presented normal distribution ( $p=0.200$  and  $p=0.121$ ), and their cutoff points were their means, 46.92 and 20.77, respectively. The Control dimension did not present normal distribution ( $p=0.010$ ), using its median 80.0 as a cutoff point.

**Table 2.** Kolmogorov-Smirnov test to verify the sample normality

Dimension	Statistics	df	Sig.
Demand	0.189	13	0.200
Control	0.271	13	0.010
Social support	0.210	13	0.121

Source: Research data, 2019.

Of the 13 professionals surveyed, 7 (53.8%) presented high demand and 6 (46.2%) low demand; 8 (61.5%) high control and 5 (38.5%) low control; 9 (69.2%) high social support and 4 (30.8%) low social support (TABLE 3).

**Table 3.** Distribution of the frequency and percentage regarding the dimensions in the application of the Job Stress Scale questionnaire

Dimension	Level	N	%
Demand	Low	7	53.8
	High	6	46.2
Control	Low	5	38.5
	High	8	61.5
Social Support	Low	4	30.8
	High	9	69.2

Source: Research data, 2019.

Regarding the results of the application of the Maslach Burnout Inventory, 10 professionals (76.6%) presented low level of emotional exhaustion and only 3 (23.1%) presented high level; in the professional achievement aspect, 2 (15.4%) had a level considered low and 11 (84.6%) high level; in the depersonalization aspects, all professionals (100%) presented low level (TABLE 4).

**Table 4.** Distribution of the frequency and percentage regarding the dimensions in the application of the Maslach Burnout Inventory questionnaire

Dimension	Level	N	%
Emotional Exhaustion	Low	10	76.9
	High	3	23.1
Professional achievement	Low	2	15.4
	High	11	84.6
Depersonalization	Low	13	100.0

Source: Research data, 2019.

## Discussion

BS or Professional exhaustion is described in the literature as a public health problem that is characterized mainly by the reduction in professional performance, feeling of helplessness, frustration, and disability to achieve goals at work. The main factors that generate occupational stress involve aspects of administration organization, work system, and quality of human relations<sup>14,15</sup>.

With the descriptive analysis of sociodemographic variables in this study, it was possible to perceive the predominance of female professionals (92.3%), who were mostly  $\leq 35$  years (69.2%), had children and were married (53.8%).

Age, in the literature, is said as one of the important variables in the study of BS. Younger professionals may be more likely to develop BS, since they present themselves in a transition phase between expectation and reality as soon as they start their careers, while older professionals tend to develop ways of coping with situations related to the performance of their work functions. As for having children and being in a stable relationship, there is no evidence in the literature that those variables can influence the risk of professionals developing BS, although they may influence the emotional exhaustion of those professionals<sup>11,16</sup>.

Maslach adds that few personal characteristics are associated with BS, and describes the syndrome as more social than an individual phenomenon<sup>17</sup>.

Of the 13 professionals who answered the Job Stress Scale (JSS) questionnaire, most of them presented a high level in the demand dimension (53.8%), while there was a high level in the control dimension. Based on the demand-control model of Karasek adapted by Alves, which aims to relate the control and demand coming from institutions with the response in the mental and physical health of the worker, the professionals of this study fit within the active work, when the demand and control are high. In active work, the worker has autonomy over his work rhythm, and despite the high demand, is not considered so exhausting<sup>18</sup>.

Other studies, such as that of Oliboni<sup>19</sup>, which aimed to analyze the relationship between occupational stress and absenteeism in nursing professionals, presented similar results in the application of the JSS questionnaire, but with a smaller difference between the high and low levels of each dimension. In the present survey, most of the professionals interviewed were also female (94.8%), and mostly presented high demand (63%) and high control (51%).

Another important variable was the Social Support dimension present in the JSS, in this study the professionals mostly presented high social support (69.2%), also corroborating the study by Oliboni<sup>19</sup>.

According to Kogien and Cedaro<sup>20</sup>, high psychological demands interfere in the worker's quality of life, being a possible triggering factor of stress at work, especially when high demand is associated with low control in work activity and low social support.

The results observed in the application of the Maslach Burnout Inventory questionnaire are similar to those found in studies that applied this same data collection instrument. In this study, 10 professionals (76.9%) presented a high level of emotional exhaustion, but despite this, 11 professionals (84.6%) were professionally achieved and all interviewees (100%) obtained low depersonalization.

Ramos<sup>11</sup>, in his research that aimed to identify the impact of BS on the quality of life of primary health care nursing professionals, obtained results with a low level of depersonalization (51.9%) and high level of professional achievement 55.8%, the results obtained for the professionals of the NASF-AB of Teresina differed very little from the study by Ramos, only in the emotional exhaustion dimension, where the interviewees presented low level (50%).

Silva<sup>15</sup> evaluated the prevalence of BS and associated factors in professionals working in Primary Care in Aracaju/SE, and the results were equivalent to that of this study. Most of the interviewees presented a high level of emotional exhaustion (43%), low level of depersonalization (51%) and medium and high level of professional achievement (43% and 25%, respectively).

Professional exhaustion is one of the first manifestations in the process of BS or the most obvious of this syndrome. Lorenz and Guirardello<sup>21</sup> attributed this high level of emotional exhaustion to low autonomy and little control over the work environment, in addition to poor organizational support that may be related to the expansion and consolidation of the Family Health Strategy (FHS) and Family Health Support Centers (NASF) focused on the family and its social relationships, guided by the principles of the UHS and technological innovation<sup>7,21</sup>.

It is noteworthy that the answers derived from an evaluation where the individual answers questions about him/herself may be influenced by social patterns and also reflect self-denial, a characteristic present in BS<sup>11</sup>.

Finally, the study presented some limitations, such as low sample number, due to the type of study chosen (convenience sample), for being a cross-sectional study that occurred in a given period of time for the application of the questionnaires. Moreover, due to the lack of standardization in the application and processing of data that were performed in other similar studies found in the literature, it entailed a certain restriction to compare the results found with the present study.



## Conclusion

The limitation of the study related to the sample size caused the data to be dispersed and inaccurate regarding the prevalence of BS in professionals working in the NASF-AB. Nevertheless, it can be concluded that those professionals presented a high risk of developing BS, since they exhibited high levels of Emotional Demand and Exhaustion in the JSS and MBI questionnaires, respectively.

Finally, further studies should be conducted to improve the understanding of risks, as well as the prevalence of BS in those professionals, in order to support the implementation of prevention measures and the development of intervention plans for professionals who already have this syndrome.

## Authors' contributions

Frota SCM participated in the Conception and design of the study, search and statistical analysis of the research data, interpretation of results, bibliographic survey, and writing of the scientific article. Nogueira LT guided the study and participated in the design and writing of the scientific article. Cavalcante ALP and Ibiapina NMS participated in data collection, statistical analysis of the data and bibliographic survey. Silva AD participated in the bibliographic survey. All authors participated in the critical review and final testing of the manuscript.

## Conflict of interests

No financial, legal, or political competing interests with third parties (government, commercial, private foundation, etc.) were disclosed for any aspect of the submitted work (including but not limited to grants, data monitoring board, study design, manuscript preparation, statistical analysis, etc.).

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