Kist, D. R., Possuelo, L. G., Krug, S. B. F.
Burnout syndrome in nurses of the family health strategies in southern Brazil

burnout

# Burnout syndrome in nurses of the family health strategies in southern Brazil

**RESUMO |** Objetivo: identificar a prevalência da Síndrome de Burnout e as características sociodemográficas e ocupacionais associadas em enfermeiros de ESFs de municípios da 28ª Região de Saúde do Rio Grande do Sul. Método: trata-se de um estudo transversal, incluindo enfermeiros de Estratégia Saúde da Família de 13 municípios de uma região do sul do Brasil que responderam um questionário online com aspectos sociodemográficos e ocupacionais e o Maslach Burnout Inventory para mensurar o desfecho de SB no período de março a agosto de 2018. Resultados: um total de 47 enfermeiros respondeu o instrumento. A prevalência de Síndrome de Burnout foi de 57,4%. Os enfermeiros que possuem interesse em trocar de profissão, assim como aqueles que trabalhavam na zona urbana apresentaram associação com a Síndrome de Burnout (p≤0,05). Conclusão: o estudo demonstrou alta prevalência de Síndrome de Burnout entre os enfermeiros que atuam em ESFs da 28ª Região de Saúde, indicando predisposição em desenvolvê-la.
**Descritores:** Esgotamento profissional; Estratégia saúde da família; Enfermeiras e enfermeiros

**ABSTRACT |** Objective: To identify the prevalence of Burnout Syndrome and AS associated sociodemographic and occupational characteristics in nurses of FHTs from municipalities of the 28th Health Region of Rio Grande do Sul. Methods: This is a cross-sectional study, including Family Health Strategy nurses from 13 municipalities of a region of southern Brazil that answered an online questionnaire with sociodemographic and occupational aspects and the Maslach Burnout Inventory to measure the SB outcome from March to August 2018. Results: A total of 47 nurses answered the instrument. The prevalence of SB was 57.4%. Nurses with an interest in changing jobs, as well as those working in the urban area, had an association with SB (p≤0.05). Conclusions: The study demonstrated a high prevalence of SB among nurses who work in FHSs of the 28th Health Region, indicating a predisposition to develop it.
**Keywords:** Burnout, professional; Family health strategy; Nurses

**RESUMEN |** Objetivo: Identificar la prevalencia de Sindome de Burnout y características sociodemográficas y ocupacionales asociadas en enfermeras de ESFs de municipios de la 28ª Región Sanitaria de Rio Grande do Sul. Métodos: Se trata de un estudio transversal, que incluye enfermeras de la Estrategia de Salud de la Familia de 13 municipios de una región del sur de Brasil. Quienes respondieron un cuestionario en línea con aspectos sociodemográficos y ocupacionales y el Maslach Burnout Inventory para medir el resultado de SB de marzo a agosto de 2018. Resultados: Un total de 47 enfermeras respondieron al instrumento. La prevalencia de BS fue del 57,4%. Las enfermeras que tienen interés en cambiar de profesión, así como las que trabajaban en el área urbana, se asociaron con BS (p≤0.05). Conclusiones: El estudio demostró una alta prevalencia de BS entre las enfermeras que trabajan en ESFs de la 28ª Región de Salud, lo que indica una predisposición a desarrollarla.
**Palabras claves:** Agotamiento profesional; Estrategia de salud familiar; Enfermeras y enfermeros

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## INTRODUCTION

Burnout Syndrome (BS) is a psychological condition generated from the constant accumulation of interpersonal and organizational stressors present in the work environment. This problem began to be investigated in the area of human services (social, health and education) due to direct and uninterrupted contact with people and recurrent occupational stressors. (1)

The main characteristics of this syndrome are defined by three dimensions: emotional exhaustion (EE), perceived by the feeling of tiredness, emotional and physical, depersonalization (DE), understood through the feeling of cynicism, emotional insensitivity and affective distance, and low professional achievement (LPA), understood as a feeling of ineffectiveness in the development of work and dissatisfaction. (2)

EE is considered the first stage of BS development, arising from work overload and interpersonal conflict at work. (2) However, changing any of these dimensions already signals a transitory process to burnout, and can serve as an early warning of imbalance at work. (1) The key characteristics

of the burnout experience are extreme tiredness, feeling of cynicism, detachment from work, feeling of ineffectiveness and lack of personal achievement, anxiety, hostility, depression. (1,2) These psychosomatic manifestations are considered worrying, especially among health and education professionals, as they can interfere in the care and learning process, respectively, offered to people.

Since January 2022, the revised list of occupational diseases of the World Health Organization (WHO) has come into effect with the incorporation of BS as a chronic occupational stress syndrome that has not been successfully managed. Based on this inclusion, it will be possible to formulate guidelines, based on national and international records and notifications, of causes of illness and deaths, diagnosis of the disease, as well as access to labor and social security rights provided for other occupational diseases. (3)

In Brazil, the Family Health Strategy (FHS) is considered the preferential access to the Unified Health Service (SUS), which integrates a network of services aimed at serving users and families in a defined territory. In the multiprofessional team, nurses are usually assigned the coordination of various functions and assistance to meet organizational, individual and collective demands, oriented towards comprehensive care in communication with the other levels of care. (4)

BS is significant among health professionals. (5) In nurses, the prevalence varies from 7% to 58.3% in national studies and from 17.2% to 46.2% in international studies. (6-8) Factors present in the work environment lead to professional burnout, as they are sometimes marked by feelings of injustice, such as unequal remuneration when compared to other professionals. (2)

In this work context, the main fac-

tors associated with the development of BS in nurses are related to the bond with the enrolled population, insufficient resources, material, physical and human, work overload due to the accumulation of managerial and care tasks and salary dissatisfaction. (3,9) The complexity of the work in the FHS involves the continuity of care for people of territoriality, affective bond, management of team activities, teamwork, communication with other services and levels of the Health Care Network. The need for high productivity, in a scenario of diverse subjectivities, reflects in emotional exhaustion. (6,11,12)

Given the above, related to the fact that negative effects of BS can affect the quality of life of nurses, patients and the institution, the objective is to identify the prevalence of BS and associated sociodemographic and occupational characteristics in nurses from FHSs from municipalities in the 28th Health Region of Rio Grande do Sul.

**METHOD**

This is a cross-sectional, exploratory, quantitative study. Located in southern Brazil, the State of Rio Grande do Sul (RS) is divided into 30 Health Regions, managed by 19 Coordinations. The 13th Regional Health Coordination (13th CRS/RS) is located in the Vales region and is responsible for the administration of the 28th Health Region, also known as the Vale do Rio Pardo Region, it covers 13 municipalities, comprising a population of 343,858 inhabitants. The rural territory is predominant, but the number of inhabitants is smaller than the urban area, which is characterized by subsistence agriculture and tobacco cultivation.

We chose to approach a specific region of southern Brazil, due to the diversity of urban and rural characteristics of the assisted population. The

approximation of work in the FHS to the social, economic, political and cultural aspects of rural and urban populations can be decisive in the work process of nurses and in the development of BS. (3) Also, the choice exclusively for nurses is justified due to the nature of this professional's work in the FHS, which, in addition to direct contact with other people, has the particularity of leadership and personal management among team members.

There are a total of 57 nurses working in the 55 FHSs in the region. Of these, 47 participated in the study. Assistance nurses who had been working in the FHS for at least six months and who signed the Free and Informed Consent Term (FICT) were included. Nurses who had administrative activities, who were away from their activities due to sick leave, vacations or any other reasons were not included.

For data collection, two instruments developed in online format using the free LimeSurvey software were used. One elaborated by the author for the characterization of the sociodemographic and occupational profile of the participants from self-administered, open and closed questions, containing 18 variables and the Maslach Burnout Inventory - Human Services Survey (MBI-HSS) to measure the burnout outcome. We chose to use it because it is internationally recognized and is one of the most suitable for investigating the prevalence of BS in health professionals. This was validated with internal consistency in the Cronbach's alpha value, satisfactory for EE ($\alpha$=0.879) and for LPA ($\alpha$=0.692) and below adequate for DE ($\alpha$=0.594). (12)

It should be noted that the MBI helps in the assessment of BS, in order to contribute to research, however, it cannot be used for diagnostic purposes, as there is a need for combined

psychological assessment methods. (1) The MBI-HSS applied to the population studied, contains 22 self-administered questions divided into three dimensions (EE, DE, LPA), filled in by the Likert scale ranging from 0-5, meaning from never to every day. (12)

The link to the online questionnaire was sent by email to the nurses who participated in the pilot study, without the need for modification. Subsequently, it was sent to the others, providing a period of 30 days for its completion. The difficulty in adopting an online survey tool is the delay in returning data, requiring recurring telephone contacts for better rates of use of the questionnaires. The collection was carried out from March to August 2018.

The research was carried out in 2018, during the master's degree, after the approval of the unisc zip code. The dissertation was presented in 2019, the milestone and advance on the burnout syndrome was perceived as an opportunity to publish the data of this research, since there is a need for more scientific subsidies on this current theme, with the aim of disseminating more knowledge and discussions about this illness from the perspective of different perspectives, subjects from different regions of Brazil and the world. A new update of the theoretical framework was carried out, with national and international citations from recent years based on the design of this article.

The data obtained from the MBI--HSS instrument were summed by dimension and classified as high, moderate or low. Table 1 presents the scoring scales for each dimension and the respective questions.

In this study, it was decided to consider the presence of burnout the criterion of Grunfeld et al. (13), which considers a high degree of alteration in at least one of the three dimensions, as described by other authors. (6,7)

| **Table 1 - Dimensions of Burnout Syndrome by Maslach Burnout Inventory – Human Services Survey (MBI/HSS), by classification level** | | | | |
|---|---|---|---|---|
| **Dimensions** | **Score scales** | | | **Questions** |
| | **High degree** | **Moderate degree** | **Low degree** | |
| EE | ≥ 27 | 19 – 26 | < 19 | 1, 2, 3, 6, 8, 13, 14, 16, 20 |
| DE | ≥ 10 | 6 – 9 | < 6 | 5, 10, 11, 15, 22 |
| LPA | ≤ 33 | 34 – 39 | ≥ 40 | 4, 7, 9, 12, 17, 18, 19, 21 |

Source: Adapted (7). Note 1: EE – Emotional exhaustion; DE – Depersonalization; LPA – Low Professional Achievement.

The authors state that any one of the three dimensions needs to be valued to prevent the development of negative experiences resulting from BS.

The Brazilian Economic Classification Criteria (CCEB) of the National Association of Research Companies (ABEP) of 2018 was used in this study to estimate the economic level of the participants. The distribution of classes A, B1, B2, C1, C2, D-E is the result of a points system that counts the possession of some items to classify people or families in economic classes in Brazil. (14) For this study the classes were regrouped into A-B1 and B2-C1.

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 23.0, using descriptive statistics, with absolute and relative frequencies, and arithmetic mean. To test the association between the categorical variables, the chi-square test was performed. For the analyses, the value of $p \leq 0.05$ was considered significant.

This study is the result of the Master's thesis of the Postgraduate Program in Health Promotion at the University of Santa Cruz do Sul (UNISC), approved by the Research Ethics Committee (CEP/UNISC) involving human beings through opinion nº 2,510,192 on February 21st, 2018.

**RESULTS**

The prevalence of BS in the participating nurses was 57.4% based on the criterion adopted in this analysis. It was found that the factors associated with BS were interest in changing professions (p=0.015) and location of the FHS (p=0.013). Nurses who are interested in changing professions, as well as those who worked in urban areas, were associated with BS.

Regarding the sociodemographic characteristics of the participants, there is a predominance of females, white skin color, up to 40 years of age, with a partner, without children, residing in the urban area and belonging to class B2-C1. With regard to occupational characteristics, most have worked in the FHS for up to five years, have no other employment relationship, are public servants, postgraduates, are satisfied with their work and do not want to change their place of work (Table 2) .

Regarding the evaluation of the MBI/HSS dimensions, it was identified that EE prevailed in high degree, followed by LPA and DE (Table 3).

**DISCUSSION**

The prevalence of BS in the investigated nurses (57.4%) was similar to that found in other current studies that studied BS in Primary Health Care

professionals with the same criteria as in this study. The frequency found in Brazil (7), Iran (15) and Ethiopia (16), were, respectively, 58.3%, 54.0%, 53.4%.

The predominance of BS identified in this and other studies is considered high by the authors and has been showing concern regarding the theme, since burnout influences the worker's illness, interpersonal relationships and the quality of health care in the community. Changing one of these dimensions already signals a transitory process to burnout, and can serve as an early warning of imbalance at work. (1)

The set of factors that impact the professional's high levels of stress, which lead to BS, are generally identified by the feeling of lack of control and resolution over situations in the work context (high demand and few resources), insufficient rewards on job performance (recognition), ongoing relationships with the multidisciplinary team that involve lack of support, and unresolved conflicts. These characteristics can generate, among other manifestations of BS, the loss of interest in work. (2,4,6)

Nurses interested in changing professions showed statistical significance with SB in this study (p=0.014). This factor can be influenced by the imbalance between the expectation of work performed in the FHS and the reality experienced in this work environment, which can cause professional disillusionment with the profession. The work process of nurses in the FHS is considered stressful due to the particularities routinely faced in this service, which require direct and close coexistence with people and territorial problems, conditions or resources unfavorable to the development of actions in accordance with the guidelines recommended for Primary Health Care, bureaucratization of the service and management of team acti-

**Table 2 – Results of the association of burnout syndrome with sociodemographic and occupational variables of nurses in the Family Health Strategy (n = 47). 28th Health Region, Rio Grande do Sul, Brazil. 2018**

| Variables | | BS | | Total | p- Value |
|---|---|---|---|---|---|
| Sociodemographic characteristics | | Yes | Não N (%) | N (%) | |
| Sex | Female | 23 (54,8) | 19 (45,2) | 42 (89,4) | 0,377* |
| | Male | 4 (80,0) | 1 (20,0) | 5 (10,6) | |
| Color/race | White | 27 (60,0) | 18 (40,0) | 45 (95,7) | 0,176* |
| | Not white | 0 (0,0) | 2 (100) | 2 (4,3) | |
| Age | ≤ 40 years | 25 (64,1) | 14 (35,9) | 39 (83,0) | 0,057* |
| | > 40 years | 2 (25,0) | 6 (75,0) | 8 (17,0) | |
| Marital status | with partner | 23 (57,5) | 17 (42,5) | 40 (85,1) | 1,000* |
| | without partner | 4 (57,1) | 3 (42,9) | 7 (14,9) | |
| Children | Yes | 12 (57,1) | 9 (42,8) | 21 (44,7) | 1,000 |
| | No | 15 (57,7) | 11 (42,3) | 26 (55,3) | |
| Residence | Rural zone | 1 (33,3) | 2 (66,6) | 3 (6,4) | 0,567* |
| | Urban zone | 26 (59,1) | 18 (40,9) | 44 (93,6) | |
| Socioeconomic level | A-B1 | 12 (57,1) | 9 (42,8) | 21 (44,7) | 1,000 |
| | B2-C1 | 15 (57,7) | 11 (42,3) | 26 (55,3) | |
| | | | | | |
| Working time in FHS | ≤ 5 years | 15 (53,6) | 13 (46,4) | 28 (59,6) | 0,561 |
| | > 5 years | 12 (63,2) | 7 (36,8) | 19 (40,4) | |
| Another employment bond | Yes | 4 (80) | 1 (20) | 5 (10,6) | 0,377* |
| | No | 23 (54,8) | 19 (45,2) | 42 (89,4) | |
| Contractual bond | Public tender / effective | 23 (56,1) | 18 (43,9) | 41 (87,2) | 1,000* |
| | Outsourced/ temporary | 4 (66,7) | 2 (33,3) | 6 (12,8) | |
| Post-graduation | Yes | 24 (61,5) | 15 (38,5) | 39 (83,0) | 0,258* |
| | No | 3 (37,5) | 5 (62,5) | 8 (17,4) | |
| Job satisfaction | Yes | 22 (53,6) | 19 (46,3) | 41 (87,2) | 0,221* |
| | No | 5 (83,3) | 1 (16,7) | 6 (12,7) | |
| Interested in changing careers | Yes | 7 (100) | 0 (0,0) | 7 (14,9) | 0,014* |
| | No | 20 (50,0) | 20 (50,0) | 40 (85,1) | |
| Interested in switching work places | Yes | 7 (58,3) | 5 (41,7) | 12 (25,5) | 1,000 |
| | No | 20 (57,1) | 15 (42,8) | 35 (74,5) | |
| FHS location | Rural Zone | 5 (31,2) | 11 (68,75) | 16 (34,0) | 0,013 |
| | Urban Zone | 22 (70,9) | 9 (29,0) | 31 (66,0) | |
| Stressed with work | Yes | 5 (45,4) | 6 (54,6) | 11 (26,2) | 0,489 |
| | No | 22 (61,1) | 14 (38,8) | 36 (76,6) | |
| Absences in the last month of work | Yes | 8 (66,7) | 4 (33,3) | 12 (25,0) | 0,517* |
| | No | 19 (54,3) | 16 (45,7) | 35 (74,5) | |

Fonte: Elaborada pelas autoras, 2018. Nota 1: Os valores em negrito apresentam significância estatística. Nota 2: SB – Síndrome de burnout; ESF – Estratégia Saúde da Família. Nota 3: * exato de Fisher

vities. (9,11)

In addition, the location of the FHS was evidenced as a risk of developing BS in the investigated nurses, according to the statistical significance evidenced in this study (p=0.013). Nurses working in urban areas showed a prevalence of 70.9% in developing burnout. In urban areas, nurses are exposed to conditions of poverty, violence, greater demand for work and great care pressure. (3) Work overload is possibly related to this data.

This study showed a lower prevalence of BS in nurses working in rural areas. This can be attributed to the perspective of this area being more unassisted in relation to health, education, means of communication, transport, which reflects in the lower access and demand for the health service. (17) Thus, it is believed that nurses working in FHSs located in rural areas face lower demands from organizational and interpersonal demands, despite the various vulnerable conditions.

It is considered that most nurses in this study are young, with a mean age of 34.9 (±6.8) years. The highest percentages of SB have been attributed to younger nurses, as they are not as mature in dealing with stressors present in the work environment as those with a higher age group. (6-7)

In addition, there is a predominance of women, a historical characteristic related to gender role stereotypes in the profession. (6-7) The importance of identifying gender is perceived due to double or triple working hours, related to domestic demands and, sometimes, more than one work relationship, in female populations.(18)

Regarding marital status, 85.1% of the participants reported having partners. Emotional stability and experience developed by interpersonal relationships in family life are factors that minimize the development of BS among nurses. (6-7) In addition, pro-

| Table 3 - Assessment of BS dimensions in FHS nurses. 28th Health Region, Rio Grande do Sul, Brazil. | | | |
|---|---|---|---|
| Dimensions | Degree | Total n (%) | p-Value |
| EE | Hugh | 16 (34,0) | 0,432 |
| | Moderated | 15 (32,0) | |
| | Low | 16 (34,0) | |
| DE | High | 12 (25,5) | 0,132 |
| | Moderated | 11 (23,4) | |
| | Low | 24 (51,1) | |
| LPA | High | 15 (31,9) | 0,503 |
| | Moderated | 15 (31,9) | |
| | Low | 17 (36,2) | |

Source: The authors, 2018. Note 1: EE – Emotional exhaustion; DE – Depersonalization; LPA - Low professional achievement

fessionals without a partner are more prone to burnout compared to those with a partner. (19)

Regarding occupational characteristics, nurses with up to five years of work in the FHS have a higher prevalence of BS. Professional inexperience is one of the factors related to BS in other studies. (7,19,20) The turnover of the work team and management can lead to the compromise of the emotional state of the professional. Still, the inexperience to deal with the vulnerabilities and responsibilities of the profession is a predisposing element to BS. (13)

In this study, the employment contract was predominant (87.2%), an aspect evaluated as positive in relation to SB, since temporary work can have political interference or illness, which generate economic instability for the worker. Such a stressor can motivate the development of BS. (18)

Considering the training of the participants, most have a postgraduate degree, an aspect that shows that nurses are seeking qualification. (6) However, it was identified in this study that nurses with a more advanced level of education are more likely to have BS (63.15%) than those without a graduate degree. This characteristic

is related to the expansion of expectations regarding the job market, which, in some cases, may not be achieved, leading to the professional's suffering. (6)

It was found that most participants declared themselves satisfied with their work, a factor considered protective against burnout. (6) On the other hand, it can be seen that the majority of participants satisfied with their work have a high prevalence of BS.

It is believed that this aspect may be related to the question addressed in the survey on job satisfaction, which was evaluated from a dichotomous qualitative variable (yes/no) and not through a scale to consider the level. The MBI, in addition to being quantified with a variation from 0 to 6, also has a greater amplitude in the adopted criterion.

Satisfaction is related to both the physical environment and the intrinsic aspects of the work environment and recognition. (18) Thus, it is assumed that, even when participants declare themselves professionally satisfied, there may be aspects of the work environment in the FHS or interpersonal relationships that reflect the high prevalence of BS, without, perhaps, realizing it early. Still, it is assumed that

perhaps it may have occurred because it was not explored in the instrument.

Regarding the dimensions evaluated by the MBI, EE was the most prevalent among nurses in the investigated population, probably because it is the first trait of BS, characterized by work overload, wear and tear, fatigue, loss of energy and enthusiasm for performing their duties. (1) The nurses investigated in this study who carry out their work in communities located in the urban area seem to have an association with the BS, probably due to the growing demand in the FHS, requiring nurses to have a greater workload and little control over the work environment, such as violence, poverty, unemployment or turnover of professionals, which can be motivated by work overload, poor organizational support. (21)

Emotional exhaustion can harm, including the expansion and consolidation of the FHS, guided by the principles of the SUS. (21) In meta--analysis (22) it can be seen that EE and LPA are common among nurses, predominantly Latin American, with a prevalence between 22 and 34%, confirmed by the two Brazilian studies included in the study, when compared with Spain, corroborating the results of this study. The authors relate this result to the close and continuous involvement with the problems of patients and families inserted in the territory of the FHS, the growing demand for work, and the lack of control in the work process, added to the difficulties of nursing work are aspects that can favor EE and LPA. To Maslach (2) Burnout is perceived as more of a social phenomenon than an individual one.

However, DE is considered the second phase of BS characterized by behaviors of cynicism, insensitivity and indolence as a means of coping, an aspect that demands attention regarding the health of the worker and the quality of care. When the profes-

sional reaches a high degree of DE, there is a greater risk of absenteeism and job turnover. (2)

The tendency of professionals with burnout is to withdraw and camouflage suffering through defensive measures. Over time, chronic stressors at work lead to an imbalance between work demands and the ability to cope with them, leading to rigidity, loss of idealism and distancing people in a dehumanized way as a way of protecting themselves. Still, there is an impact on interpersonal relationships, since with the development of BS, conflicts between the team increase, work productivity changes and generates precariousness in the assistance provided. (2)

## CONCLUSION

The study demonstrated the high prevalence in the SB dimensions among FHS nurses in the 28th Health Region. As it is performed in FHSs in urban and rural locations, it can be seen that the BS was associated with nurses working in urban areas. It is believed to be due to greater exposure to more complex demands, due to the prevailing location in the periphery and to territorial approximation.

Furthermore, the results indicated an association between BS and the interest in changing professions. It is believed that this can be influenced by the imbalance between the expectation of work performed in the FHS and the reality experienced in this work environment, which can lead to professional disillusionment with the profession and reflections on the quality of care.

It is considered that the use of the online questionnaire as the main tool for data collection was a possible limitation of this stage of the research. It was expected that the use of the internet as a research tool would contribute to the speed of data collection,

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> Since January 2022, the revised list of occupational diseases of the World Health Organization (WHO) has come into effect with the incorporation of BS as a chronic occupational stress syndrome that has not been successfully managed.
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better rates of use of the questionnaires and lower cost. However, to obtain the results presented, insistent contacts were necessary for the return of the participants, possibly due to the high demand of work required.

Although the study was carried out in a specific region, it is believed to be representative, since the total population of FHS nurses in Health Region 28/RS was considered, of rural and urban locations from a validated and internationally recognized instrument. It is understood that because they are governed by the same health policy on a national scale, with similar challenges and difficulties, the data can, in a way, be generalized to promote other studies with the intention of investigating other occupational or regional contexts.

This research made it possible to know the regional reality about the BS and aspects associated with the work of nurses in the FHS. It is expected that this can generate reflections and transformations about the theme and the organization of the work of the FHSs, as well as subsidize studies in other contexts. It is believed that the importance of actions that improve job satisfaction and educational opportunities should be strengthened in the nurses' work environment, aiming at coping with BS.

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