

# Preliminary identification of burnout syndrome in nursing residents of a university hospital

Identificação preliminar da síndrome de burnout em residentes de enfermagemde um hospital universitário

Natalia Moreira Leitão<sup>1</sup> • Karina Cordeiro de Freitas<sup>2</sup> • Magda Guimarães de Araujo Faria<sup>3</sup> • Paula Soares Brandão<sup>4</sup> • Luciana Valadão Alves Kebian<sup>5</sup> • Janaína Mengal Gomes Fabri<sup>6</sup>

#### **RESUMO**

Objetiva-se avaliar a tendência para o desenvolvimento da Síndrome de Burnout entre os residentes de enfermagem de um hospital universitário do município do Rio de Janeiro. O método é o estudo descritivo quantitativo transversal. Os participantes foram os 128 residentes de enfermagem de um hospital universitário da cidade do Rio de Janeiro. A coleta e análise de dados se basearam no uso do Maslach Burnout Inventory (MBI) e um instrumento de dados sócio-demográficos. Resultados: A prevalência de resultado indicativo para síndrome de burnout na população estudada foi de 49% e a dimensão mais acometida foi a exaustão emocional, seguida da realização profissional e despersonalização. Concluiu-se que os residentes de enfermagem fazem parte de uma população extremamente vulnerável para o desenvolvimento da síndrome, sobretudo porque conjugam atribuições de profissionais e aprendizes.

Descritores: Esgotamento profissional; Internato não médico; Equipe de enfermagem.

## **ABSTRACT**

Aimed to evaluate the tendency for the development of Burnout Syndrome among nursing residents of a university hospital in the city of Rio de Janeiro. The method is the cross-sectional quantitative descriptive study. The participants were the 128 nursing residents of a university hospital in the city of Rio de Janeiro. Data collection and analysis were based on the use of the Maslach Burnout Inventory (MBI) and a socio-demographic data instrument. Results: The prevalence of indicative results for burnout syndrome in the studied population was 49%, and the most affected dimension was emotional exhaustion followed by professional performance and depersonalization. It concludes that nursing residents are part of a population extremely vulnerable to the development of the syndrome, mainly because they combine the assignments of professionals and apprentices.

**Descriptors:** Burnout, Professional; Internship, Nonmedical; Nursing, Team.

## NOTA

<sup>&</sup>lt;sup>6</sup>Mestre em enfermagem. Professora assistente do departamento de enfermagem médico-cirurgica da faculdade de enfermagem da Universidade do estado do Rio de Janeiro.



<sup>&</sup>lt;sup>1</sup>Enfermeira pela universidade do estado do Rio de janeiro. Residente do Instituto Nacional do câncer- Rio de janeiro

<sup>&</sup>lt;sup>2</sup>Enfermeira pela universidade do estado do Rio de janeiro.

<sup>&</sup>lt;sup>3</sup>Dra em enfermagem. Professora adjunta do departamento de enfermagem em saúde pública da faculdade de enfermagem da Universidade do estado do Rio de Janeiro

<sup>&</sup>lt;sup>4</sup>Mestre em saúde pública. Professora assistente do departamento de enfermagem em saúde pública da faculdade de enfermagem da Universidade do estado do Rio de Janeiro.

<sup>&</sup>lt;sup>5</sup>Dra em enfermagem. Professora adjunta do Instituto Federal de Educação, Ciência e Tecnologia Fluminense - Campus Macaé.

## INTRODUCTION

Burnout syndrome is a psychological affliction related to stressful interpersonal contact in the workplace. It is considered an occupational hazard in professions in which contact and interactionist relations predominate. This syndrome is influenced by socioenvironmental aspects and interferes in the work and personal life of the professionals who develop it, and may lead to leaves of absence, and even to the use of illicit substances (1).

Thus, it is possible to affirm that nurses are susceptible to develop such syndrome, especially those who work in hospital environments. The hospital work requires constant attention of the worker, in the scope of prevention of work accidents, coordination of actions that must take into account the high workload, assistance to the public, overload of tasks and possible conflicts within the action team (2). In addition, other variables that influence nurses' work in the hospital environment, such as physical, emotional, low pay and social discredit are identified (3).

All these exhausting conditions induce a process of worker vulnerability, professionals who sometimes expose themselves to occupational hazards and to workloads that can lead to illness, causing damages not only to this professional, but also to the quality of the care provided to clients <sup>(4)</sup>.

Although such traces of susceptibility permeate almost the whole body of nursing workers in a hospital, it can be said that nursing residents are considered as a group of maximum vulnerability, because they have a two-dimensional work process, oscillating between the condition of a student and professional, nursing residents <sup>(5)</sup>.

The professional residency programs of multiprofessional and professional health were instituted as of the enactment of Federal Law No. 11,129 <sup>(6)</sup>, being defined as modality of postgraduate education latosensu, directed to health professionals, excepted the doctor, acting in the education in service. Subsequently, a new legal document stipulates the hours of residence programs, whose weekly distribution is 60 (sixty) hours per week, with a minimum duration of 02 (two) years <sup>(7)</sup>.

Nursing residency is a specialization where 80% of activities are focused on practical activities and requires a rigid training scheme in order to train professionals who are better prepared to work in the labor market (8).

In a research carried out in 2015, it was observed that approximately 85% of the professionals who graduated from the residency were able to position themselves in the job market <sup>(9)</sup>. Although the literature presents positive results regarding the employability after the end of the residence, the two-dimensional process of work of the nursing resident produces a physical and emotional exhaustion that can be determinant for the development of the Burnout Syndrome.

Thus, the guiding question of this research is: Do nursing residents tend to develop Burnout syndrome? The objective of this research was to evaluate the tendency for the development of Burnout Syndrome among nursing residents of a university hospital in the city of Rio de Janeiro.

The relevance of this research is based on the possibility of this study being a guiding indicator for future changes in the work process, evaluation and monitoring of these residents. Thus contributing to the necessary changes to minimize mental illness in the work of this population.

# **METHOD**

This was a quantitative, descriptive and cross-sectional study. The scenario chosen for the development of the research was a university hospital located in the city of Rio de Janeiro, Brazil.

The study participants were the 128 nursing residents working in the year 2016, distributed between R1 and R2 (1st and 2nd year of residence respectively) and among 12 specialties areas, namely: a) Cardiovascular; b) Surgical Center; c) Surgical; d) Medical Clinic; e) Nephrology; f) Neonatology; g) Obstetrics; h) Pediatrics; i) Psychiatry and Mental Health; j) Adolescent Health; k) Intensive Therapy; l) Work Nursing.

The exclusion criteria in this collection were: I. Residents removed from their activities by medical leave during collection; 2. Residents on vacation. It should be noted that during the collection period, that is, between October and December 2016, all residents were able to participate in the research.

Knowing the existence of differences in the demands of work and type of clientele in the fields of action of the residents, the programs were grouped in 3 major areas: I. Women and Children's Area: Neonatology, Pediatrics, Adolescent Health and Obstetrics; 2. Surgical Area: Cardiology, Surgical and Surgical Center; 3. Clinical Area: Mental Health and Psychiatry, Medical Clinic, Worked Nursing, Intensive Care and Nephrology.

For data collection, the Maslach Burnout Inventory-MBI (10) was used as the instrument. This instrument is a self-administered form that was created to evaluate the incidence of Burnout Syndrome in health workers.

The instrument is composed of 22 closed, scalar and ordinal questions, ranging from 1 to 7. Each of the MBI items corresponds to one of the three dimensions of Burnout syndrome. To cite: 1. Emotional Exhaustion; 2. Depersonalization; 3. Personal Achievement.

Emotional exhaustion is the first response to chronic work stress and is characterized by lack of energy, enthusiasm, and a sense of resource depletion (human, psychic and physical). Workers believe they are no longer able to

spend more energy for customer service as they did before. Depersonalization is characterized by the negative perception of solving problems and having satisfaction in their behaviors. At this stage, the endpoint is usually an emotional insensitivity that causes the professional to treat clients, colleagues, and the organization as objects. The professional achievement is about how the worker evaluates themselves in a negative way in the professional scope (11).

The variables of the MBI have three graduations of scores, to mention: Low (B), High (A) and Moderate (M). However, it is necessary to observe that there is no consensus in the literature on the parameters consistent with the effective identification of the syndrome and, therefore, the original parameter proposed by Maslach was adopted, that is, the articulation between the high score of emotional exhaustion and depersonalization and low professional achievement score (11).

A priori, it is added that the data were collected, quantified, tabulated and analyzed after approval by the Research Ethics Committee under the opinion 1,658,806 and CAAE 57976016.2.0000.5282, obeying the current national norm set forth in Resolution 466 / 12 of the National Health Council (12).

#### **RESULTS**

Of the total number of effective nurses in the residency program, 51 answered the survey questionnaire, that is, 41.4%. In addition, among these, 64.7% were R1 and 35.3% were R2. The socio-demographic profile of the residents indicates the prevalence of single nurses (83%), without children (96%) and residents of neighborhoods adjacent to the hospital (69%). It is also worth noting that 49% reported having a religious belief and 61% indicated that they performed physical activities outside working hours.

Regarding the MBI analysis, it was observed that after the sum of the scores for each dimension of the syndrome, 90% of the residents had a high level in at least one of the three dimensions evaluated. In addition, it was emphasized that no discrepant results were found between residents of the first and second year, nor between the areas evaluated. The prevalence of indicative results for Burnout syndrome in the study population was 49% and the distribution of the results according to the dimension analyzed is shown in Graph 1.

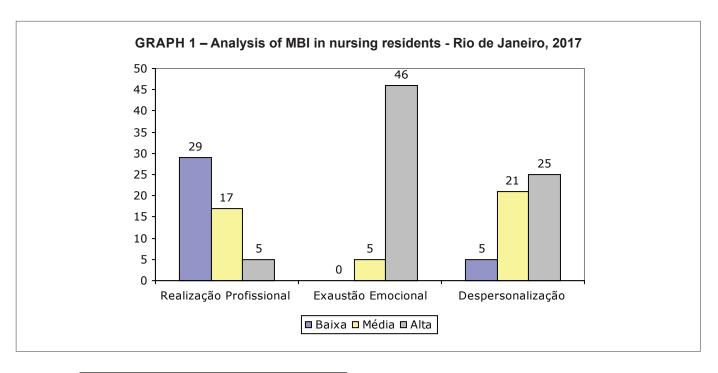
Participants in the women's and children's area answered 20 questionnaires, where it was observed that residents experienced more frequent emotional exhaustion (90%), followed by low professional achievement (40%) and depersonalization (40%), according to Graph 2.

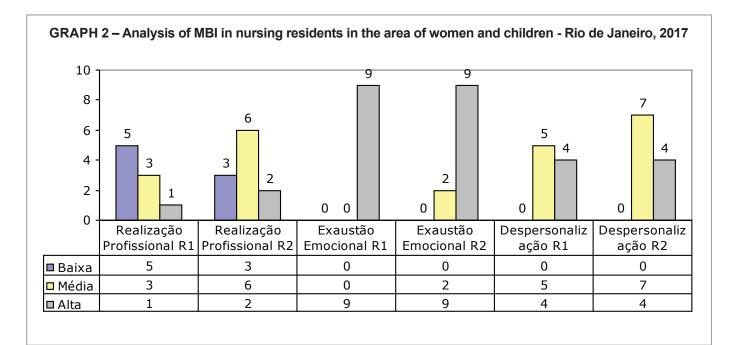
In the surgical area, only nine residents of the first year answered the questionnaire and the results were: high emotional exhaustion (100%), low professional achievement (78%) and moderate depersonalization (44%), according to Graph 3.

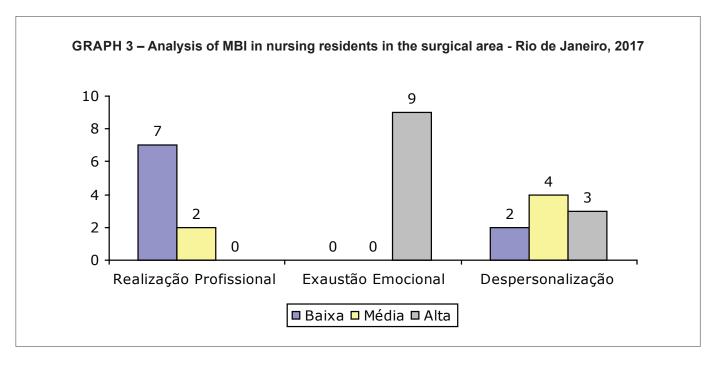
In the clinical area, 22 residents answered the questionnaire and it was observed that RI and R2 had the same pattern, to mention: high emotional exhaustion (86%), followed by low professional achievement (64%) and high depersonalization (64%), as shown in Graph 4.

## **DISCUSSION**

It should be noted that at the time of data collection, the city and state of Rio de Janeiro experienced an intense economic and political crisis <sup>(13)</sup>, with a direct impact on the work process of the residents participating in this study. The main consequences of this dismantling process were: I. Delay of scholarships related to the monthly payment of residents; 2. Lack of supplies in







the hospital; 3. Strike between the servers, including preceptors and tutors and; 4. Contingency in the work of residents.

As for the profile, this one is similar to another study, where it was observed that 90% of the residents were unmarried and 70% did not have children. To study the residence, 80% of the individuals were from the State of Rio de Janeiro and 77.7% lived with relatives <sup>(5)</sup>. Regarding the performance of physical activities, the result of this study is similar to other findings in the literature <sup>(14)</sup>.

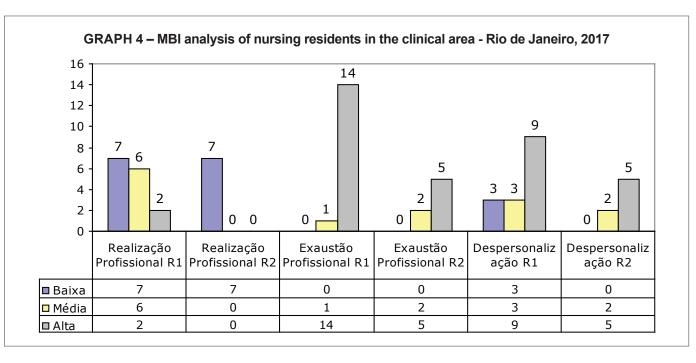
When analyzing the one-dimensional changes in MBI, the present study showed a percentage up to 25% higher than the findings of similar studies <sup>(15)</sup>.

In relation to the real indicative of illness, that is, the change in the three dimensions analyzed, the present

study also shows a significant increase, since the national scientific literature presents indexes ranging from 3 to 27% (11,16).

It is worth noting that despite the high prevalence found in the present analysis, studies of specific areas present even more worrying data. A survey conducted with residents of the pediatrics area pointed out the prevalence of scores that indicated the existence of Burnout syndrome in 66% of the target population (17). In addition, it was identified that residents of the first year had results closer to normal, when compared to the others, a result that diverges from the findings.

The process of getting sick withBurnout syndromeexperienced by health professionals, especially nurses, affects workers in all settings. In the emergency and



emergency scenario, the prevalence of changes in the three dimensions studied in MBI with professionals reaches 38% <sup>(18)</sup>. Working in closed areas requires professional agility and efficiency in performing life-sustaining procedures <sup>(19)</sup>. In this context, the nursing care provided in these units is considered exhaustive and tense, becoming physical and mental exhaustion, which can be a catalyst for Burnout.

Regarding the implications of the dimensions evaluated in MBI, the present result is convergent with other findings that indicate emotional exhaustion as the main alteration evaluated <sup>(20)</sup>.

This exhaustion can have repercussions on Burnout Syndrome and, consequently, on work absenteeism, medical leave and the risk of work accidents. In addition, it is observed that this dimension is closely related to the nurses' work process in hospital settings, from emergency care to unit management, evidencing the high responsibility in the search for customer needs (19).

Based on the data presented above, it can be seen that resident nurses working in closed areas are highly susceptible to developing Burnout Syndrome. In these sectors, there are long hours of work, collection of agility and skill, collection of family members and guaranteeing the minimum of damages to the patient, making quick and concrete decisions leading the whole team.

## CONCLUSION

The research reached its goal by identifying that the mental health of nursing residents is increasingly compromised by stress, physical and emotional exhaustion, long working hours, and above all by being apprentices and nurses. In this sense, the tendency todevelop Burnout Syndrome is 49% in the studied population.

It was possible to observe the convergence of results among the three large areas analyzed, which indicates the existence of a pattern of illness, which is believed to be related to issues related to the work process, but also to the historical moment experienced by the institution through the political, social and economic dismantling that have been occurring in recent years.

It is recalled that it is not possible to cure all sources of stress in the process of training resident nurses. However, it is necessary that all participants in this process be co-responsible, to mention: administrators, managers and even the State in guaranteeing adequate conditions for the accomplishment of the activities, understanding that the contention of the stressors can attenuate the aggravations the health of these professionals.

There is also an urgent need for future analyzes that contemplate the work process and sickness of nursing residents, given the current shortage of research on this subject.

#### **REFERENCES**

- I. Santos SMP, Souza V, Rueda FJM. Burnout and its relationship with the organizational climate in hospital employees. ABCS health sci.[Internet] 2015; 40(1) [acesso em 28 de mai 2018]. Disponível: DOI: https://doi.org/10.7322/abcshs.v40i1.697
- Melo CMSS, Ferreira SCM. Integrativereviewonnursingworkercareexposed to biologicaloccupationalhazards. Enferm. atual. (Rio de Janeiro). [Internet] 2015; 12(2) [acesso em 28 de mai 2018]. Disponível: https://revistaenfermagematual.com. br/uploads/revistas/12/revista.pdf
- 3. Amaral JF, Ribeiro JP, Paixão DX. Quality of life in the work of nursing professionals in the hospital environment: An integrative review. Espaç. Saúde. [Internet] 2015; 74: 40-44[acesso em 20 de ago 2018]. Disponível: DOI: http://dx.doi.org/10.22421/1517-7130.2015v16n1p66
- 4. Felli VEA. Nursing and sickness work conditions: reasons to reduce the working hours to 30 hours. Enferm. foco[Internet] 2012; 3(4)[acesso em 28 de mai 2018]. Disponível: http://biblioteca.cofen.gov.br/wp-content/uploads/2016/02/Condicoes-de-trabalho-de-enfermagem-e-adoecimento.pdf
- Tavares KFA, Souza NVDO, Silva LD, Kestenberg CCF. Prevalence of Burnout syndrome among resident nurses. Acta paul. enferm. [Internet] 2014; 27(3) [acesso em 28 de mai 2018]. Disponível: DOI: http://dx.doi.org/10.1590/1982-0194201400044
- 6. Brasil. Lei n° 11.129 de 30 de junho de 2005. Establishes the National Youth Inclusion Program – ProJovem; cria o Conselho Nacional da Juventude – CNJ e a Secretaria Nacional de Juventude. Brasília, 2005
- 7. Ministério da Educação (BR). Portaria Interministerial MEC/ MS nº 1.077, de 12 de novembro de 2009. Provides for Multiprofessional Residency in Health and Residency in Professional Health Area. Brasília, 2009.
- 8. Brasil. Comissão Nacional de Residência Multiprofissional em Saúde. Resolução CNRMS n° 3, de 4 de maio de 2010. It deals with the duration and the workload of the programs of Multiprofessional Residency in Health and Residency in Occupational Health Area and on the evaluation and frequency of resident health professionals. Brasília, 2010.
- Zanoni CS, Haddad MCL, Rossaneis MA, Vannuchi MTO, Gvozd R. Nursing residency contributions in the professional performance of graduates. Semina cienc. biol. saude. [Internet] 2015;
  (1) [acesso em 28 de mai 2018]. Disponível: DOI: http://dx.doi.org/10.5433/1679-0367.2015v36n1Suplp215
- 10. Maslach C.The Client Role in Staff Burn-Out. J. soc. issues. [Internet] 1978; 34(4) [acesso em 28 de mai 2018]. Disponível: DOI: https://doi.org/10.1111/j.1540-4560.1978. tb00778.x
- II. Silva DKC, Pacheco MJT, Marques HS, Branco RCC, Silva Neto MAC, Nascimento MDSB. Rev. bras. med. trab.[Inter-

- net] 2017; 15(1) [acesso em 28 de mai 2018]. Disponível: http://www.rbmt.org.br/details/208/pt-BR/burnout-no-tra-balho-de-medicos-pediatras
- 12. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução n°466, de 12 de dezembro de 2012. Regulates research involving humans. Brasília: MS [Internet].2012 [acesso em 20 ago 2018]; p.59. Disponível em: http://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf.
- 13. Silva HNM.The crisis of the state of Rio de Janeiro, economic and political relations. Boletim de conjuntura [Internet] 2018; 2(4) [acesso em 28 de mai 2018]. Disponível: https://repositorio.ufsc.br/bitstream/handle/123456789/182555/Conflitos-e-Revolucoes-29-41.pdf?sequence=1&isAllowed=y
- 14. Fernandes LS; Nitsche MJT; Godoy I. Burnout syndrome in nursing professionals of an intensive care unit. Rev Fund Care. [Internet] 2017; 9(2) [acesso em 28 de mai 2018]. Disponível: DOI: http://dx.doi.org/10.9789/2175-5361.2017. v9i2.551-557
- 15. Andrade HS, Gomes HS, Mesquita GV, Ribeiro JLV, Ferreira GCX. Prevalence of burnout syndrome in pediatric intensive care. Rev interdisciplinar. [Internet] 2017; 10(3) [acesso em 28 de mai 2018]. Disponível:https://revistainterdisciplinar.uninovafapi.edu.br/index.php/revinter/article/view/1290
- 16. Guido LA, Goulart CT, Silva RM, Lopes LFD, Ferreira EM. Stress and burnout among multiprofessional residents. Rev. Latino-Am. Enferm. [Internet] 2012; 20(6) [acesso em 28 de mai 2018]. Disponível:http://www.scielo.br/pdf/rlae/v20n6/pt\_08.pdf
- 17. Martins AE, Davenport MC, Del Valle MP, Di Lalla S, Domínguez P, Ormando L et al. Impact of a brief intervention on the burnout levels of pediatric residents. J. Pediatr. [Internet] 2011; 87(6) [acesso em 28 de mai 2018]. Disponível: http://www.scielo.br/scielo.php?script=sci\_arttext&pid=S0021-75572011000600006&Ing=en. http://dx.doi.org/10.2223/JPED.2127
- 18. Batista LMA, Sousa ARQ, Nunes FMP, Nobre JOC, Nunes EQ. Burnout syndrome in nurses of emergency mobile service. Rev. Temas Saúde. [Internet] 2016; 16(3): 147-62 [acesso em 28 de mai 2018]. Disponível: http://temasemsaude.com/wp-content/uploads/2016/09/16309.pdf
- 19. MontezeliJH, Peres AM, Bernardino E. Management skills required of nurses in an emergency room.Rev. pesqui. cuid. fundam.[Internet] 2013; 5(3): 245-52 [acesso em 28 de mai 2018]. Disponível: DOI: 10.9789/2175-5361.2013v5n3p245
- 20. Fonseca TCP, Melo R. Burnout syndrome among nursing professionals from intensive care units in a public hospital. Rev. enferm. UFPE on line. [Internet] 2016; 10(supl.1): 296-303 [acesso em 28 de mai 2018]. Disponível: DOI: 10.5205/reuol.7901-80479-1-SP.1001sup201614