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Burnout syndrome in professionals of the primary healthcare network in Aracaju, Brazil

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Abstract *The Burnout Syndrome (SB) stems from the chronic emotional stress experienced by the worker, characterized by emotional exhaustion, depersonalization and low personal accomplishment. May involve professionals whose work relates directly to the public. Aims to assess the prevalence of SB and associated factors in higher education professionals, linked to the Primary Care Network Health in the city of Aracaju / SE, who answered the sociodemographic questionnaire and the Maslach Inventory for Burnout. The average age was 44.9 years, most nurses, women, married with children and graduate. The prevalence of SB was 6.7% to 10.8%, associated factors were younger age, excessive hours of work and job dissatisfaction. There was no difference between the categories evaluated and the majority does not have the SB. However, 54.1% had a high and moderate risk of developing this syndrome, reflecting a process of illness that threatens the welfare of top-level professionals from the Primary Care Network Health Aracaju - SE. These findings point to the importance of adopting preventive and interventional measures as collateral for a better working environment.*

Key words *Work exhaustion, primary healthcare, workers' health*

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Introduction

In recent years, the effect of work on the physical and mental health of professionals has been seen as an important subject[1]. According to Lima[2] work is not always a source of professional realization, and can often generate problems of dissatisfaction and exhaustion, which can affect the quality of the services provided.

The syndrome known as Burnout Syndrome is a group of psychological symptoms arising from chronic emotional tension suffered by the worker, and is characterized by emotional exhaustion, feelings of alienation, and low personal realization. It can affect professionals whose work requires direct contact with the public[3]. The syndrome is recognized all over the world as one of the major psycho-social problems that affect the quality of life of professionals in various areas, principally those that involve healthcare, education and human services, and this generates an important occupational and social question[4-6].

Moreira[7] reports that burnout syndrome is not exclusive to health workers and education professionals, but happens in individuals whose professions expose them to intense tension and stress, such as police, accountants, stockbrokers, directors or executives of companies, air traffic controllers, trainers and sportspeople. According to the Brazilian Social Security Ministry, in 2007 a total of 4.2 million people spent time off work, and 3,852 were diagnosed as suffering from Burnout Syndrome[8].

The syndrome can have adverse financial effects, such as early retirement, absenteeism and employee turnover[9]. According to Vieira[10], in health professionals it occurs at a rate between 30% and 47%. In Finland, this percentage is 27.6%, and in Brazil 10%[10]. Moreira[7] reports that since 1974, when it was described for the first time, Burnout Syndrome has been the subject of study by various researchers, especially in the area of education. As from the 1990s, studies on the effects of work on the mental health of professionals, such as stress and Burnout Syndrome, have progressively increased[11,12].

A study on Portuguese family doctors operating in primary healthcare centers (*Centros de Atenção Primária à Saúde*) suggests that a significant percentage, estimated over a range between 4.1% and 32.4%, of these professionals, are suffering from Burnout Syndrome[13]. Primary healthcare, or basic healthcare, is characterized by a group of actions, both individual and collective, including promotion, protection and maintenance of health, prevention of complications, diagnosis, treatment and rehabilitation. It uses technologies of high complexity and low density, which are intended to solve the more frequent and important health problems in the territory in question[14]

In spite of the increasing interest in the subject, Burnout Syndrome is still little known among workers and the general public. Suggestions for matters of prevention and intervention, designed for professionals in the area of health, might result in higher quality in the provision of services to the population[15]. In health, one sees a larger number of studies in the occupational group of nurses and doctors that work in hospitals, principally in the urgency/emergency services and intensive care units[11]. Work on the population of professionals in basic healthcare is still rare, although there is a need for care of the mental health of these people who act at the principal doorway to Brazil's Unified Health System[16]. The individual who enters a university is seeking a profession that will satisfy him or her emotionally and financially. This is an expectation that is also seen in the area of health where, from the start, the student brings with her a number of motivations about the profession, which are polished and shaped with the difficulties, disappointments and rewards that happen during the course[17]. Sometimes, this expectation is frustrated by adversity in exercising the profession that is chosen – making the person susceptible to Burnout Syndrome.

This study aims to assess the degree of occurrence of Burnout Syndrome and associated factors in post-university professionals connected to the Primary Healthcare Network (*Rede de Atenção Primária à Saúde*) of the municipality of Aracaju, in the Brazilian state of Sergipe.

Methodology

This is a transversal study held over the period June through August 2012. It was planned in accordance with the Declaration of Helsinki and with resolution 196/1996[18] of the National Health Council; and was approved by the Research Ethics Committee of Tiradentes University. The post-university level professionals were distributed consecutively by category in the primary healthcare network, in the city of Aracaju, in the State of Sergipe, Brazil; the objectives of the research were duly explained to them, especially in relation to confidentiality and non-identification

of the people involved, and also the benefits that could be achieved; they could also refuse to participate in the study, or to leave it. After signing the informed consent form, they answered the questionnaires.

Sample

The following were considered as criteria for inclusion: having a formal link with the Municipal Health Secretariat; working in Primary Healthcare, with a workload of at least 30 hours/week; and having a university education. Professionals who refused to participate in the study, and those who for any reason were away from work due to holidays or medical leave, a bonus or other reasons were excluded from the sample.

For calculation of the size of the sample, it was supposed that the variable that contains the response of interest has a proportion of 35.7% in the population, with maximum estimating error of 7%, and significance level of 5%. Taking losses into account, an addition of 10% was used[7]. Thus, the calculated size of the sample was 198 individuals.

Variables and instruments used

To evaluate the social-demographic and health characteristics of the professionals, an individual structured questionnaire was used, adapted from Costa et al.[19], containing the following information: gender; age; marital status; profession; whether having a religion; having completed post-graduation; having children; owning one's own home. Economic characteristics and those related to occupation were also analyzed: income, in multiples of the minimum wage; whether or not having another job; working hours per week; satisfaction with the profession; work as a source of realization; future expectations; feelings about the work; whether would make the same choice of profession again; whether the respondent has thought about abandoning the profession; whether she believes that she is succeeding in developing the skills necessary to be a good professional; whether she practices any physical activity; whether she finds emotional support in the work environment; whether she feels happy; whether she is emotional, calm or tense; and whether she has any physical or mental illness.

According to Benevides-Pereira[20], the psychometric properties of the Maslach Burnout Inventory (MBI) have three versions for application in specific work situations: the Human Services Survey (HSS), for evaluating professionals in human services such as doctors, nurses, psychologists, social assistance, and others; the Educators Survey (ED), for teachers and educators; and the General Survey (GS), indicated for workers in general. For analysis, the MBI Manual puts forward as a principle the obtaining of high score in Emotional Exhaustion (EE) and feelings of alienation (DE), and a low score in Professional Realization (RP)[21].

The Burnout Syndrome was assessed using the Maslach Inventory, for Research in Health Services (MBI HSS). This can be self-applied, and evaluates the three dimensions of the syndrome: EE, DE and RP[7]. It has been validated and translated to Portuguese by Benevides-Pereira[20], and is widely employed all over the world, independently of the occupational characteristics of the sample and of its origin. The form of scoring of the items researched adopts the scale of the Likert type which varies from 0 to 6: (0) never, (1) once a year or less, (2) once a month or less, (3) sometimes in the month, (4) once a week, (5) sometimes per week and (6) everyday[1].

According to Ebisui[21], the weighting of each of the dimensions in the conjunction of the elements that comprise the SB in the MBI Manual is not clear, and for this reason he suggested that one should score the dimensions separately. Thus, the Maslach classification[22], for diagnosis of the syndrome when individuals present high EE, high DE and low RP, the analysis of each dimension was carried out separately and subjects were classified as of High, Moderate and Low risk, depending on the score: *High* risk: *high EE* + *high DE* + high RP or *high EE* + Low DE + *low RP* or low EE + *high DE*+ *low RP; Moderate* risk: *high EE* or *high DE* or *low RP; Low* risk: *low EE* + *low DE* + *high RP*[21].

Statistical analysis

In the categorical variables simple and relative frequencies were used, and the numerical variables were described as average, standard deviation and confidence interval 95% (CI 95%), when relevant. For the test of hypotheses, considering the categorical variables, Pearson's χ^2 test was applied. The comparison between two or more groups (High risk, Moderate risk, Low risk) was made with ANOVA (analysis of variance) with one factor, followed by the Tukey post-hoc test for the quantitative variables. The

confidence level was 0.05 for error α and power 0.80, and the tests were assumed to be two-sided. The SPSS (Statistical Package for Social Sciences) program, version 19.0, was used in the statistical calculations.

Results

Of the 216 professionals selected, 90% (194/216) answered the questionnaires adequately. The average age of this group was 44.9 years (standard deviation 10.5, minimum age 25, maximum age 64). 84% were female (162/194), thus five times more frequent than males, and 66% were married (127/194). Of the professionals, 61% (132/216) had post-graduate education, 37% were nurses (72/194) and 28% were doctors (54/194) (Table 1). Of these, 28 were general practitioners, 15 pediatricians and 11 gynecologists. Their working week varied between 30 and 60 hours – for the majority it was 40 hours per week.

When considering the Maslach criterion, the prevalence of SB found was 7% (13/194; CI 95%: 3.1–10.3). Of these 9 were nurses, 3 were doctors, 2 were dentists and 2 were social assistants, there being no statistical difference between the professions and the different variables studied. The high risk can also be present when two of those criteria are altered[21] and by this alternative protocol it can be considered that the prevalence was 11% (21/194; CI 95%: 6.2–15.5).

These dimensions, when evaluated separately, presented a high frequency of 64% for emotional exhaustion. This represents the positive response – at least once per week – for feeling emotionally exhausted, at a limit, due to working more than expected; feeling frustrated, being stressed by dealing directly with people, which demands a great effort; and, also, tiredness on waking up in the morning and going out to face one more working day.

In relation to feelings of alienation, a frequency of 50% was found, due to the positive

Table 1. Characteristics of professionals of the Primary Health Care Network, Aracaju, Sergipe, Brazil, 2012.

Variable	n (%)
Age (years)*	44.9 ± 10.5
Gender	
Female	162 (83.5)
Male	32 (16.5)
Marital status	
Married	127(65.5)
Single / divorced / widowed	67 (34.5)
Profession	
Nurse	72 (37.1)
Doctor	54 (27.8)
Dentist	39 (20.1)
Social assistant	29 (14.9)
Religion	
Yes	110(56.7)
No	84 (43.3)
Post-graduate studies	
Yes	132 (68)
No	62 (32)
Children	
Yes	137(70.6)
No	57 (29.4)
Owner of home	
Yes	171(88.1)
No	23 (11.9)
Other employment	
Yes	101(52.1)
No	93 (47.9)

* Reported as average and standard deviation. Other values are expressed as number of occurrences or simple frequency or percentage.

Table 2. Frequency distribution of degrees of Emotional exhaustion, Alienation, and Professional efficacy, with respective CI, of professionals of the Primary Health Care Network of Aracaju, Sergipe, Brazil, 2012.

Dimension		High	Average	Low
Emotional exhaustion (EE)*	n (%)	84 (43%)	41 (21%)	69 (36%)
	IC	36.1 - 50,0	16 - 27.3	28.9 - 42.8
Alienation (DE)**	n (%)	33 (17%)	63 (33%)	98 (51%)
	IC	11.9 - 22.7	26.3 - 39.7%	43.8 - 57.7
Professional efficacy (EP)***	n (%)	48 (25%)	84 (43%)	62 (32%)
	IC	18.6 - 30.9	36.6 - 50.5	25.3 - 38.7

* Cronbach's alpha for EE is 0.921. ** Cronbach's alpha for DE is 0.813. *** Cronbach's alpha for EP is 0.670.

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response – some times per month – for: feeling that the patients blame the respondent for some of their problems; treating them as if they were objects, becoming less sensitive with people since starting this work; not, really, being concerned with what happens to some of the patients; concern with the possibility that this work is making the respondent emotionally harder (Table 2).

While a low degree of professional realization was reported by 32%, 68% said that: working with the patients left them full of energy, stimulated after working hours, calm in the working environment, with a positive influence on the life of other people, dealing adequately with the problems of the patients, due to easily understanding what they feel, and, thus, achieving professional realization (Table 2).

More than half (54.1%) of the professionals showed high and moderate risk for Burnout Syndrome (Table 3). In relation to age this risk (p = 0.006) was high and moderate among the younger people (41.4 ± 10.3), when compared to the older people (47.1 ± 10.2). This can also be observed with those who report a working week greater than 40 hours (p = 0.04) (Table 4).

The group with high and moderate risk of the syndrome presented a significant increase in professional dissatisfaction, as well as: a desire to abandon the profession; reporting that the work was not a source of realization; feelings of discomfort; mental disorder diagnosed by a psychiatrist; emotional tension; and limited/average future expectations. A lower number of these professionals stated that they felt happy in the group of high and moderate risk (Table 5).

Table 3. Frequency of risk of Burnout Syndrome and respective CI 95% in professionals of the Primary Health Care Network of Aracaju, Sergipe, Brazil, 2012.

Burnout risk	n (%)	Confidence interval 95%
High	54 (27.8)	21.6 - 34.0
Moderate	51 (26.3)	20.6 - 32.0
Low	89 (45.9)	39.2 - 52.6

Discussion

Professional exhaustion (burnout) – described as a mental condition characterized by a reduction of working performance, feelings of not being supported, feeling frustrated, and incapacity to meet working targets is, currently, a public health

Table 4. Frequency distribution of professionals by Burnout risk group and social-demographic variables.

	Burnout risk			
	High	Moderate	Low	p value
Age*	41.4 ± 10.3	44.8 ± 10.2	47.1 ± 10.2	
Gender				0.006
Female	47(87.0)	42(82.4)	73(82.0)	
Male	7(13.0)	9(17.6)	16(18.0)	
Marital status				0.71
Married	30(55.6)	32(62.7)	65(73.0)	
Single / divorced / widowed	24(44.4)	19(37.3)	24(24.0)	0.09
Religion	30(55.6)	29(56.9)	51(57.3)	0.98
Children	35(64.8)	36(70.6)	66(74.2)	0.49
Owner of home	43(79.6)	46(90.2)	82(92.1)	0.07
Other employment	31(57.4)	23(45.1)	47(52.8)	0.44
Working week in hours				
30 h	2(3.7)	7(13.7)	10(11.2)	0.04
40 h	27(50.0)	25(49.0)	45(50.6)	
50 h	2(3.7)	8(15.7)	13(14.7)	
60 h	7(13.0)	4(7.8)	12(13.5)	
More than 60 h	16(29.6)	7(13.7)	10(4.6)	
Post-graduate studies	39(72.2)	33(64.7)	60(67.4)	0.7

* Values reported as average and standard deviation, and Anova test of factor with $p < 0.05$. Other values in n(%). χ-squared test.

Table 5. Frequency distribution of professionals of the Primary Health Care Network, by burnout risk as evidenced by feelings expressed in relation to work and aspects of health.

	Burnout risk			
	High	**Moderate**	**Low**	**p value**
Professional dissatisfaction	16(29.6)	16(31.4)	9(10.1)	0.002*
Has thought of abandoning the profession	18(33.3)	13(25.5)	14(15.7)	0.05*
Work is not a source of realization	16(29.6)	7(13.7)	5(5.6)	<0.0001*
Feeling about work				
Comfortable	26(48.1)	30(58.8)	72(80.9)	<0.0001*
Uncomfortable	28(51.9)	21(41.2)	17(19.1)	
Emotional tone				
Calm	21(38.9)	27(52.9)	66(74.2)	<0.0001*
Tense	33(61.1)	24(47.1)	23(25.8)	
Emotional support	40(74.1)	40(78.4)	72(80.9)	0.63
Future expectations				
Good	30(55.6)	28(55.9)	72(80.9)	0.001*
Regular	24(44.4)	23(45.1)	17(19.1)	
Feels happy	46(85.2)	42(82.4)	84(94.4)	0.06
Physical activity	25(46.3)	24(47.1)	49(55.1)	0.51
Physical illness	21(38.9)	24(47.1)	30(33.7)	0.3
Diagnosis of mental disorder	15(27.8)	10(19.6)	10(11.2)	0.04*

* Significant for < 0.05 – χ-squared test. n (%)

problem[9]. Special attention needs to be given to the manifestations of Burnout Syndrome in professionals working in public service, where specific demands, tasks and abilities in relation to the public are called for. In the Primary Healthcare Network, as well as the demands of the work, professionals also deal daily with illness, subjective suffering and somatic symptoms.

This present study is unprecedented in Aracaju, with professionals of post-university level of the Primary Healthcare Network, for evaluation of Burnout Syndrome in a multi-professional team, comprising doctors, nurses, dentists and social assistants. These people have the responsibility to take actions directed toward problems of health in a consent-based manner with the community where they work, aiming to provide care for individuals and families over time, at all times maintaining a proactive stance in relation to the health-illness problems of the population[14].

In this study, the professionals of the Primary Health Care Network had average age of 44.9 ± 10.5 years, the majority being women (83.5%), married (65.5%), with children (70.6%) and of post-university level (68%). These data are similar to those reported by authors such as: Ebisui[19], Moreira et al.[7], Jodas and Haddad[8], Gomes[23], Santos and Cardoso[24] and Marcelino et al.[13], which shows that the sample studied has similar aspects in social-demographic terms and in terms of schooling to those shown by the relative literature, and in harmony with their data on the percentage of females – who have been in the majority. No difference between the genders was found in relation to the prevalence of Burnout Syndrome in the professionals of the REAP of Aracaju.

The prevalence of Burnout Syndrome was 7% (CI 95%, 3.1–10.3), in the professionals of REAP, without a difference between the categories studied, but more significant in the younger people, who thus have less time in the profession. These are figures in line with the work of Martins et al.[25], who observe that age was also associated with feeling of burnout, since the professionals aged 30 years or more showed 2.2 times less likelihood of presenting burnout compared to those who were 29 or younger. These results show the importance of intervention with guidance in the direction of psychological support for these professionals, aiming to minimize the effects of Burnout Syndrome, or indeed to avoid it.

A working week of more than 40 hours was also associated with risk of Burnout Syndrome. Jodas and Haddad[8], when evaluating nurses in a first aid facility, found 54.1% of their subjects having a high risk of Burnout Syndrome, and 37.7% with low risk, considering that overwork

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and occupational tension are major sources of stress. High demand from the work should be avoided, because it generates not only emotional stress, which tends to be expressed in suffering, but because it can lead to Burnout Syndrome, which builds up in phases.

Considering criterion (1), high EE and DE associated with low RP and 11% (CI of 6.2–15.5), in accordance with criterion (2), of two dimensions altered, in Spain, MUNOZ, 2003, found that 76.4% of the professionals suffered from Burnout[26]. Other surveys, however, show a level of occurrence similar to that of this present study[3,6,8,19,27,28]. In relation to the dimensions it was perceived that majority of the professionals in primary healthcare in the municipality of Aracaju (Sergipe) present average and high emotional exhaustion and feelings of alienation, while professional realization was predominantly low and average, to the detriment of high. These data are in harmony with the literature which shows variable results, probably due to differences existing in the working environment[3,6,7,9,13,19,28,29]. The variables that were associated with the greatest risk of Burnout Syndrome in the present work were similar to those of Oliva-Costa[30]; Lima et al.[2], Mota et al.[29] and Pranjic and Males-Bilic[31], which considered excess work, emotional tension generated by daily contact with the population assisted, discontentment and deficient interaction between professionals, to be important factors in generating the problem[31].

Unhealthy environment and hardship of the work in the Primary Healthcare Network cause permanent exposure to one or more factors that can lead to illnesses or suffering, arising from the very nature of the work itself and from its organization, evidenced by non-specific organic and cyclical signs and symptoms among the health workers[32]. The environment of the Primary Health Care Network can cause stress and emotional tension in these workers, since in this location that tasks are set, and in it the professional experiences variable degrees of control over the activities that she/he carries out.

The doctor has tasks attributed to him/her of integral assistance to individuals and families at all phases of human development. S/he thus carries out activities of spontaneous or programed demand in clinical practice, pediatrics, gynecology and obstetrics, outpatient surgeries, small clinical surgical emergencies and procedures for the purpose of diagnosis, attending in her/his consultancy office, at home and in the other spaces of the community[14]. These are duties that can lead to psychosomatic stress, principally due to the responsibilities for assistance and safety of the patient and family, conflicting relationships within the team itself or with another team, lack of recognition, problems with equipment and material, or inadequate work locations, among other challenges.

The dental surgeon has to carry out a diagnosis for the purpose of obtaining the epidemiological profile for planning and programming of oral health, carrying out clinical procedures of Basic Healthcare in oral health, including attending to emergencies and small outpatient surgeries. S/he has to provide overall care in individual and collective oral health to all families, to individuals and to specific groups, seeking to integrate health actions in a multidisciplinary fashion[14]. Working in conditions that are often inadequate, with problems of environment and equipment, can result in emotional wear and, in the long term lead to illness.

Nurses have duties to provide integrated assistance to people and families in the Family Health Unit (USF) and, when indicated or necessary, in home visits and/or in other community spaces. S/he has to carry out nursing consultations, request complimentary tests and examinations, and prescribe medications, while obeying the legal provisions governing the profession, and in accordance with protocols or other technical rules laid down by the Health Ministry. S/he has to plan, manage, coordinate and assess action carried out by the team of the health unit; supervise, coordinate and carry out activities of permanent education, and participate in the management of the inputs necessary for the adequate functioning of the USF[14]. In relation to the psycho-social aspects of the work, there are various components that interfere with the health of these professionals. These notably include: time pressure, state of alertness, fragmentation of tasks, administrative and environmental questions, and issues of relationships. Further, subjects such as competitiveness, low autonomy, invariability of the activities, insecurity in the work, lack of support (from colleagues and superiors), and feeling overburdened, would be related to increase of stress in these workers.

The social assistant has the duty of providing social services, orienting individuals, families, the community and institutions about rights and duties (rules of law, codes and legislation), services and social resources and education programs. S/he has to plan, coordinate and evaluate social plans, programs and projects in various different areas of professional activity (social securi-

ty, education, work, legal matters, housing and others)[33]. When the work of these professionals is made more precarious by double or multiple employment, excessive working hours, precarious employment links and low salaries, these become factors potentially leading to Burnout Syndrome.

In view of these facts, it is important to call attention to a process in which professionals of post-university level become ill, in the Primary Health Care Network of Aracaju – constituting a threat to the worker's well-being – in view of the evidence in this present survey that more than half of the professionals evaluated presented a high or moderate degree of risk for developing Burnout Syndrome. Studies suggest that active strategies for facing these factors can reduce burnout, and that it is important to employ management practices that result in control of work and provide the employees with the resources for carrying out their function[34,35].

Working conditions are also responsible for the development of Burnout Syndrome – causing losses to the individuals and the institution, with the potential to compromise the quality of the services provided to the public. There are possibilities for confronting this syndrome, and it is suggested that measures of prevention and intervention should be implemented, such as: realization of permanent education activities, greater use of technologies, adoption of sporadic pauses during the working day, and improvement of the organizational climate by good governance of conflicts arising from differences of positions between and inside teams. The purpose of this effort would be to ensure work environments that generate physical and mental health for the professionals who – being themselves in a good condition, will be able to provide better assistance to users who are in such need of the public health services.

Conclusion

The majority of the health professionals of the Primary Healthcare Network of Aracaju do not present Burnout Syndrome. However, the index of pre-disposition to develop the syndrome was high. This reflects a process of becoming ill which threatens the well-being of these professionals. The factors associated with Burnout Syndrome were more frequent in the younger age groups, without among people a conjugal partner, with excessive working hours, who were dissatisfied with their profession. There was no statistically significant difference of Burnout Syndrome between the genders, nor between the four professional categories researched.

Collaborations

SCPS Silva helped in the conception and design, article writing, data collection; MAP Nunes made the methodology, analysis and interpretation of data; VR Santana contributed in the collection and interpretation of data; FP Reis helped in guiding and final approval of the article; J Machado Neto participated in article writing and data collection; SO Lima participated in orientation, article writing, its critical review, and approval of the version to be published.

References

1. Benevides-Pereira AMT, organizador. *Burnout: quando o trabalho ameaça o bem-estar do trabalhador*. 4ª ed. São Paulo: Casa do Psicólogo; 2010.
2. Lima RAS, Souza AI, Galindo RH, Feliciano KVO. Vulnerabilidade ao *burnout* entre médicos de hospital público do Recife. *Cien Saude Colet* 2013; 18(4):1051-1058.
3. Tironi MOS, Nascimento Sobrinho CL, Barros DS, Reis EJFB, Marques Filho ES, Almeida A, Bitencourt A, Feitosa AIR, Neves FS, Mota ICC, França J, Borges LG, Lordão MBJ, Trindade MV, Teles MS, Almeida MBT, Souza YG. Trabalho e Síndrome da Estafa Profissional (Síndrome de Burnout) em médicos intensivistas de Salvador. *Rev. Assoc. Med. Bras*. 2009; 55(6):656-662.
4. Sousa IF, Mendonça H. *Burnout* em Professores Universitários: Impacto de Percepções de Justiça e Comprometimento Afetivo. *Pic. Teor. Pesq*. 2009; 25(4):499-508.
5. Vieira I. Conceito(s) de *burnout*: questões atuais da pesquisa e a contribuição da clínica. *Rev. Bras. Saúde Ocup.* 2010; 35(122):269-276.
6. Costa EF, Santos SA, Santos AT, Melo EV, Andrade TM. Burnout Syndrome and associated factors among medical students: a cross-sectional study. *Clinics* 2012; 67(6):573-579.
7. Moreira DS, Magnago RF, Sakae TM, Magajewski FR. Prevalence of burnout syndrome in nursing staff in a large hospital in south of Brazil. *Cad Saude Publica* 2009; 25(7):1559-1568.
8. Jodas DA, Haddad MCL. Síndrome de Burnout em trabalhadores de enfermagem de um pronto socorro de hospital universitário. *Acta Paul Enferm* 2009; 22(2):192-197.
9. Segura O. Burnout: concepts and implications affecting public health. *Biomedica* 2014; 34(4):535-545.
10. Vieira I, Ramos A, Martins D, Bucasio E, Benevides -Pereira AM, Figueira I, Jardim S. *Burnout* na clínica psiquiátrica: relato de um caso. *Rev Psquiatria* 2006; 28(3):352-356.
11. Khamisa N, Peltzer K, Oldenburg B. Burnout in Relation to Specific Contributing Factors and Health Outcomes among Nurses: A Systematic Review. *Int J Environ Res Public Health* 2013; 10(6):2214-2240.
12. Dubois CA, Bentein K, Mansour JB, Gilbert F, Bédard JL. Why some employees adopt or resist reorganization of work practices in health care: associations between perceived loss of resources, burnout, and attitudes to change. *Int J Environ Res Public Health* 2014; 11(1):187-201.
13. Marcelino G, Cerveira JM, Carvalho I, Costa JA, Lopes M, Calado NE, Marques-Vidal P. Burnout levels among Portuguese family doctors: a nationwide survey. *BMJ Open* 2012; 2(3).
14. Brasil. Ministério da Saúde (MS). Secretaria de Atenção À Saúde. Departamento de Atenção Básica. *Política Nacional de Atenção Básica*. 4ª ed. Brasília: MS; 2007.
15. Maia LDG, Silva ND, Mendes PHC. Síndrome de Burnout em agentes comunitários de saúde: aspectos de sua formação e prática. *Rev. Bras. Saúde Ocup.* 2011; 36(123):93-102.
16. Albuquerque FJB, Melo CFM, Araújo Neto JLA. Avaliação da síndrome de *burnout* em profissionais da Estratégia Saúde da Família da capital paraibana. *Psicol Reflex Crit* 2012; 25(3).
17. Trindade LMDF, Vieira MJ. Curso de medicina: motivações e expectativas de estudantes iniciantes. *Rev Brasileira de Educação Médica* 2009; 33(4):542-554.
18. Brasil. Ministério da Saúde (MS). Conselho Nacional de Saúde. Resolução nº 196 de 10 de outubro de 1996. Diretrizes e Normas Regulamentadoras de Pesquisas Envolvendo Seres Humanos. *Diário Oficial da União* 1996; 16 out.
19. Costa EFO, Andrade TM, Silvany Neto AM, Melo EV, Rosa ACA, Alencar MA, Silva AM. Transtornos mentais comuns entre estudantes de medicina da Universidade Federal de Sergipe: estudo transversal. *Rev Bras Psiquiatr* 2010; 32(1):11-19.
20. Benevides-Pereira AMT. MBI – Maslach Burnout Inventory e suas adaptações para o Brasil [resumo]. In: *Anais da 32ª Reunião Anual de Psicologia*; 2001; Rio de Janeiro; 2001.
21. Ebisui CTN. *Trabalho docente do enfermeiro e a Síndrome de Burnout: desafios e perspectivas* [tese]. Ribeirão Preto: Universidade de São Paulo; 2008.
22. Maslach C, Jackson SE. *Maslach Burnout Inventory, Manual*. Palo Alto: University of California; 1981.
23. Gomes AR, Cruz JF, Cabanelas S. Estresse Ocupacional em Profissionais de Saúde: Um Estudo com Enfermeiros Portugueses Psicologia. *Teoria e Pesquisa* 2009; 25(3):307-318.
24. Santos AFO, Cardoso CL. Profissionais de saúde mental: manifestação de stress e burnout. *Estudos de Psicologia* 2010; 27(1):67-74.
25. Martins LF, Laport TJ, Menezes VP, Medeiros PB, Ronzani TM. Burnout syndrome in primary health care professionals. *Cien Saude Colet* 2014; 19(12):4739-4750.
26. Martínez de la Casa Muñoz A, del Castillo Comas C, Magaña Loarte E, Bru Espino I, Franco Moreno A, Segura Fragoso A. Study of the prevalence of burnout in doctors in the Health Area of Talavera de La Reina. *Aten Primária* 2003; 32(6):343-348.
27. Pedersen AF, Andersen CM, Olesen F, Vedsted P. Risk of Burnout in Danish GPs and Exploration of Factors Associated with Development of Burnout: A Two-Wave Panel Study. *Int. Jour. of Fam. Med*. 2013; 2013:603713.
28. Soler JK, Yaman H, Esteva M, Dobbs F, Asenova RS, Katic M, Ozvacic Z, Desgranges JP, Moreau A, Lionis C, Kotányi P, Carelli F, Nowak PR, de Aguiar Sá Azeredo Z, Marklund E, Churchill D, Ungan M; European General Practice Research Network Burnout Study Group. Burnout in European family doctors: the EGPRN study. *Fam Pract* 2008; 25(4):245-265.
29. Mota CM, Dosea GS, Nunes PS. Assessment of the prevalence of burnout syndrome in community health agents of the city of Aracaju in the state of Sergipe, Brazil. *Cien Saude Colet* 2014; 19(12):4719-4726.

30. Costa EF, Santos SA, Santos AT, Melo EV, Andrade TM. Burnout Syndrome and associated factors among medical students: a cross-sectional study. *Clinics (Sao Paulo)* 2012; 67(6):573-580.
31. Pranjic N, Males-Bilic L. Work ability index, absenteeism and depression among patients with burnout syndrome. *Mater Sociomed* 2014; 26(4):249-252.
32. Magnago TSB, Lisboa MTL, Griep RH, Kirchhof ALC, Guido LA. Aspectos psicossociais do trabalho e distúrbio musculoesquelético em trabalhadores de enfermagem. *Rev. Latino-Am. Enfermagem* 2010; 18(3):140-147.
33. Delgado LB. Espaço sócio-ocupacional do assistente social: seu arcabouço jurídico-político. *Serv. Soc. Soc.* 2013; 113:131-151.
34. Li X, Guan L, Chang H, Zhang B. Core Self-Evaluation and Burnout among Nurses: The Mediating Role of Coping Styles. *PLoS One* 2014; 9(12):e115799.
35. Portoghese I, Galletta M, Coppola RC, Finco G, Campagna M. Burnout and workload among health care workers: the moderating role of job control. *Saf Health Work* 2014; 5(3):152-157.

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