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Frequency of burnout syndrome in a sample of intensivists physiotherapists

Frequência da síndrome de *burnout* em uma amostra de fisioterapeutas intensivistas

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RESUMO | INTRODUÇÃO: A síndrome de Burnout é uma condição que envolve basicamente três dimensões: a exaustão emocional, a despersonalização e a redução da realização profissional. Apresenta-se hoje, como um dos grandes problemas psicossociais no Brasil, sendo recordista em afastamento e incapacidades para o trabalho. **OBJETIVO:** estimar a frequência de Síndrome de *Burnout* em uma amostra de fisioterapeutas intensivistas na cidade de Salvador, Bahia, Brasil. **MÉTODO:** estudo transversal, utilizando-se o *Maslach Burnout Inventory* para avaliar a síndrome e suas dimensões e o Inventário de Sintomas para avaliar a frequência com que alguns sintomas são sentidos no cotidiano dos fisioterapeutas intensivistas. **RESULTADOS:** foram incluídos dados de 45 fisioterapeutas intensivistas, sendo que nove (20%) apresentaram alto nível de exaustão emocional, 1 (2,2%) alto nível para despersonalização e 6 (13,3%) com alta reduzida realização profissional. A frequência da síndrome de Burmout apresentou um percentual relevante: 31,1% (14 participantes). **CONCLUSÃO:** o número de pacientes, assim como o número de atendimento destes, por plantão contribui para uma sobrecarga física e mental do profissional, caracterizando o trabalho da fisioterapia como fator de risco para a incidência da SB.

PALAVRAS-CHAVE: Terapia intensiva. Fisioterapeutas. Burnout.

ABSTRACT | INTRODUCTION: Burnout syndrome is a condition that basically involves three dimensions: emotional exhaustion, depersonalization and reduction of professional achievement. He presents himself today as one of the great psychosocial problems in Brazil, being a record holder in his absence and incapacities for work. **OBJECTIVE:** To estimate the frequency of burnout syndrome in a sample of intensive physical therapists in the city of Salvador, Bahia, Brazil. **METHOD:** Cross-sectional, descriptive study using the Maslach Burnout Inventory to assess the syndrome and its dimensions and Symptoms Inventory to assess the frequency with which some symptoms are felt in the daily lives of intensive physical therapists. **RESULTS:** were included in the survey data for 45 intensive physical therapists, and 20% had high levels of emotional exhaustion, 1 (2.2%) high level to depersonalization and 6 (13.3%) with high reduced professional accomplishment. The frequency of the Burnout syndrome showed a significant percentage 31.1% (14 participants). **CONCLUSION:** The number of patients, as well as the number of these services, per shift contributes to physical and mental overload professional, featuring the work of physical therapy as a risk factor for the incidence of SB.

KEYWORDS: Critical care. Physical therapists. Burnout.

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Introduction

Burnout syndrome (BS) has been described by Maslash et al[1] as a condition that basically involves three dimensions: emotional exhaustion, depersonalization and reduction of professional achievement[1]. He presents himself today as one of the great psychosocial problems in Brazil, being a record holder in his absence and incapacities for work. There are several consequences of BS, among them the emergence of inappropriate behavior towards its clientele (irritation, neglect, detachment), decreased productivity, the installation of psychosomatic problems, absenteeism and presenteism[2].

Health workers are often exposed to excessive physical and mental stress during their work[3-5]. In this context, the equipment, furniture and clinic and hospital environments generally do not respect ergonomic precepts, emergency situations impose tasks that overwhelm the individual[6], the journey is often extensive, duplicated and accompanied by sequenced shifts. Work and suffering are routinely associated with physical and psychological stress[7,8].

As a health professional, the physiotherapist develops work activities in the rehabilitation of the individual, and its objective is to promote the reestablishment of sensory-motor functions affected by injuries and / or pathologies. However, feedback and recognition do not happen in different instances (remuneration, social recognition and others). In view of the above, this professional has become idealistic with the profession, trying to mitigate the difficulty found in the execution of his work activity and becoming overproductive and vulnerable. Attempts are also made to resolve their professional and personal conflicts, by exhausting themselves, and by overcoming obstacles, which can lead to psychic suffering and psychopathologies[9].

Intensive care units (ICUs) are considered to be an important cause of stress for patients and their families. However, it is emphasized that their environment is also stressful for the professional team[10,11]. UTI stress mainly occurs because it is a closed and hostile environment, with strenuous working conditions and rhythms, demanding routines, ethical issues that can be difficult and frequent decisions, as well as being responsible for the patient's life, living with suffering and the process of death and dying, unpredictability and excessive hours of work[11].

Studies indicate that the prevalence of BS among physicians varies from 25 to 60%[1,2], especially in intensivists, this condition is associated with work stress evidenced by the responsibility exercised in the ICU[10]. A systematic review involving seventeen observational studies pointed to a prevalence of 26% of Burnout in ICU Nurses[6]. Studies have investigated stressors and the prevalence of BS in Physical Therapists[9-13], however, studies with intensive physical therapists have not been described in the literature.The present study aimed to estimate the BS frequency in a sample of intensive physical therapists in the city of Salvador, Bahia, Brazil.

Methods

A descriptive, cross-sectional study was conducted in a population of intensive physical therapists between September and November 2009. Physiotherapists working in Adult Intensive Care Units (ICU) and Coronary Units (UCO) were included in five hospitals, four private individuals and one university public, located in the city of Salvador, Bahia. The sample was of convenience, using the non-probabilistic sampling technique called snowball. Physiotherapists working in more than one ICU and / or UCO only responded once to the instrument. Those who were away on medical leave or vacation during the survey period were excluded and the hours of their shift on duty did not match the researchers' availability.

For data collection a self-administered questionnaire was used where the researchers delivered to the physiotherapists personally in their work place waiting for the complete filling of this one. The questionnaire consists of three parts: the first one referring to general identification, sociodemographic characteristics and working conditions. The second composite of BS evaluation in its three dimensions, classified in low, moderate and high levels. For this, the Maslach Burnout Inventory (MBI) - HSS[12] was used, which is composed of 22 questions about the three dimensions of BS.

Emotional exhaustion was assessed by nine items, namely: (1,2,3,6,8,13,14,16,20), five-item depersonalization (5,10,11,15,22), and reduced professional achievement by eight items (4,7,9,12,17,18,19,21). Each question was scored from 0 to 6, and for each dimension were added the points reached in the group of questions. For emotional exhaustion, a score greater than or equal to 27 indicates high level; from 17 to 26, moderate level; and less than 16, low levels. For depersonalization, scores equal to or greater than 13 indicated high level, from 7 to 12, moderate and less than 6, low level. For reduced professional achievement, scores ranging from zero to 31 indicate high level, from 32 to 38; moderate level and greater or equal to 39, low. Although there was no consensus in the literature for the diagnosis of BS, the high level presence in at least one of the three dimensions was used as a definition[14].

The third part of the questionnaire consisted of an Inventory of Symptoms (ISE)[15], which is composed of 30 questions, which presents as closed questions related to the frequency with which these symptoms are felt in the daily routine of intensive care physio-therapists. They are separated into physical symptoms evaluated in seventeen items, being: (1,3,5,7,9,10,11,13,14,15,16,19,21,23,25, 26,27), psychic symptoms in three items (4,18,24), behavioral symptoms in 6 items (2,8,17,20,22,29) and defensive symptoms in four items (6,12,28,30).

We used the Microsoft Office Excel 2007 and SPSS v. 22.0 for the analysis of the data. They are expressed in proportions and measure of central tendency (arithmetic mean) and a measure of dispersion, evidenced by the standard deviation.

The present study was approved by an Ethics and Research Committee, under opinion number 2.133.847 (CAAE 69932917.1.0000.0041). Participation in the study was voluntary and confidential without identification of intensivist physiotherapists, the Informed Consent Term (TCLE) was signed by all the participants of the research.

Results

Data from 45 intensive physical therapists were included in the study, of which 31 (68.9%) were females, composed mostly of young adults with mean age of 27.9 (± 3.6) years, ranging from 23 to 40 years. It was observed that 33 (73.3%) of the professionals were single, 7 (15.6%) had children. Of the physiotherapists interviewed, 20 (44.4%) practiced physical activity ranging from 2 to 5 times a week (Table 1). A mean of 4.1 (± 3.3) years for the training time was obtained, and 3.6 (± 2.7) years of intensive care work, with a mean weekly workload of 55 (± 21.8) hours, ranging from 12 to 90 hours, averaging 9.9 (± 1.9) patients per day. The uninterrupted workload on duty indicated an average of 16.8 (± 7.3) hours (Table 2).

Of the professionals evaluated, 38 (84.4%) work in general ICU, and 18 (40%) in UCO, 24 (53.3%) have specialization, and 21 (46.7%) work in 2 hospitals. The monthly income of physiotherapists was over R$ 2,500.00 for 21 (46.7%) of the physiotherapists evaluated. Only 3 (6.7%) of the interviewees had another type of professional activity (Table 2).

Physiotherapists pointed out the main activities they did in their free time: leisure 42 (93.3%), computer use 35 (77.8%), reading / studying 33 (73.3%), and watching TV / videos 30 (66.7%) (Table 3). Regarding the stressors in the ICU and UCO, the following stand out: excessive noise 36 (80.0%), number of patients by physical therapists 27 (60.0%) and the possibility of complications in the care of hospitalized patients 23 (51.1 %) (Table 4).

Regarding Maslash Burnout Inventory (MBI), BS frequency in the study population was 31.1% (14 participants). The results for the three spheres of the syndrome, described in Table 5, did not show very high values for depersonalization, 77.8% (35 participants) presenting low level, 20% (9 participants) presenting moderate level and 2.2% participant) presenting high level. Regarding the frequency of emotional exhaustion, 44.4% (20 participants) presented low level, 35.6% (16 participants) moderate level and 20% (9 participants) high level. Regarding the low professional achievement, 64.4% (29 participants) had a low level, 22.2% (10 participants) moderate level, and 13.3% (6 participants) had a high level.

The Symptom Inventory showed a higher frequency for some symptoms related to BS: - Physicians: shoulder or neck pain 64.4% (29 participants), loss or excess of appetite 55.6% (25 participants), feeling of mental fatigue 48 , 9% (22 participants); - Behavioral: easy irritability 55.6% (25 participants), and continuous acceleration status 51.1% (23 participants); - Defensive: little time for himself 77.8% 935 participants), fast fatigue of all things 31.1% (14 participants); - Psychics: feeling unwilling to start anything 28.9% (13 participants), loss of sense of humor 26.7% (12 participants).

Table 1. Sociodemographic characteristics and life habits of the intensive care physicians of the Adult Intensive Care Unit and Coronary Unit in the city of Salvador, Bahia, Brazil (N =45).

Variables	n	%
Sex		
Male	14	31.1
Female	31	68.9
Marital status		
Married	12	26.7
Not married	33	73.3
Age (years)		
23 to 30	37	82.3
31 to 40	8	17.7
Children		
Yes	7	15.6
No	38	84.4
Physical activity practice		
Yes	20	44.4
No	25	55.6

Table 2. Characteristics related to the work and training of the intensivist physiotherapists of the Adult Intensive Care Unit and Coronary Unit in the city of Salvador, Bahia, Brazil (N =45).

Variables	n	%
Weekly workload (hours)		
24 to 59	15	33.2
60 to 90	29	64.6
> 90	1	2.2
Weekly workload in intensive care (hours)		
12 to 40	18	40.0
41 to 60	15	33.3
61 a 90	12	26.7
Uninterrupted working hours (hours)		
6	1	2.2
12	28	62.2
24	13	28.9
30	1	2.2
36	2	4.4
Number of hospital (s) that Works		
1	16	35.6
2	21	46.7
3 or more	8	17.8
Post Graduate course taken		
Yes	24	53.3
No	21	46.7
Number of patients seen / day		
1 to 9	11	24.4
10 to 15	33	73.4
16 to 20	1	2.2

Table 2. Characteristics related to the work and training of the intensivist physiotherapists of the Adult Intensive Care Unit and Coronary Unit in the city of Salvador, Bahia, Brazil (N =45). (continuation)

Variables	n	%
Workplace		
General ICU	38	84.4
UCO	18	40.0
Graduated time		
< 1 year	5	11.2
Betwenn 1 and 5 years	29	64.5
> 5 and up to 10 years	7	15.5
> 10 years	4	8.8
Working time in intensive care		
< 1 year	6	13.3
Between 1 and 3 years	19	42.2
> 3 and up to 6 anos	13	28.9
> 6 and up to 15 years	7	15.5
Monthly income (R$)		
Less than R$ 1000,00	1	2.2
Between R$ 1000,00 and R$ 2500,00	12	26.7
Between R$ 2501,00 and R$ 4000,00	21	46.7
Between R$ 4001,00 and R$ 5000,00	9	20.0
Between R$ 5001,00 and R$ 7000,00	2	4.4

ICU - intensive care unit; UCO - coronary unit

Table 3. Free time activities by intensive physical therapists of the Adult Intensive Care Unit and Coronary Unit in the city of Salvador, Bahia, Brazil (N = 45).

Variables	n	%
Sports practice	25	55.6
Using the computer	35	77.8
Craft activities	0	0
Watch TV & videos	30	66.7
Domestic jobs	22	48.9
Leisure activities	42	93.3
Reading and studies	33	73.3
Others	18	40.0

Table 4. Stressful factors in the Intensive Care Unit and Coronary Unit, in the city of Salvador, Bahia, Brazil (N = 45).

Variables	n	%
Excessive noise in ICU	36	80.0
Possibility of complications in patient care	23	51.1
Administrative issues	11	24.4
Dealing with suffering and death	16	35.6
Obligation to deal with several issues simultaneously	18	40.0
Number of patients per physiotherapist	27	60.0
Accelerated pace of professional activities	18	40.0
Lack of material resources	8	17.8
Commitment to team	6	13.3
Relationship with staff	18	40.0

Table 5. Criteria for the identification of Burnout Syndrome intensive physical therapists of the Adult Intensive Care Unit and Coronary Unit in the city of Salvador, Bahia, Brazil (N =45).

Variables	n	%
Emotional Exhaustion		
Low	20	44.4
Moderate	16	35.6
High	9	20.0
Depersonalization		
Low	35	77.8
Moderate	9	20.0
High	1	2.2
Professional achievement		
Low	29	64.4
Moderate	10	22.2
High	6	13.3
Burnout syndrome		
Yes	14	31.1
No	31	68.9

Discussion

The prevalence of BS in the studied population was 31.1%, in this context the literature data have shown a great variation in the prevalence of SB among health professionals. A study carried out with French intensive care physicians revealed a prevalence of 46.5% of SB, obtaining this difference probably due to the number of professionals interviewed (n = 978) and the population studied[9]. Another study conducted with Brazilian intensive care physicians found a prevalence of 63.3% of BS[13]. The prevalence of BS in nurses who work in intensive care in Rio de Janeiro was 55.3%[16]. To assess stress levels and coping resources of stress, 55 Portuguese physiotherapists answered a diagnostic tool. The findings showed high levels of work-related stress (35% moderately stressed and 36% stressed) in this population[17].

The main affected dimension among the intensivist physiotherapists evaluated in the present study was emotional exhaustion, which is considered the first reaction to the stress generated by the obligations and demands of the work[18]. The depersonalization that is developed by the professional in the face of physical and psychological symptoms is characterized by cold, ironic and negative attitudes that makes the professional treat the people involved in his work in a derogatory manner[19, 20]. The intensivist physiotherapists interviewed in the present study did not present relevant levels for this dimension.

Regarding the professional achievement, it is considered by some authors as the last dimension to be affected by the exacerbated stress having as main exposure, labor activities[1, 20, 21]. It is also characterized by inefficiency, reduced self-confidence, a sense of failure and, consequently, a decrease in professional achievement[21]. In the current research, 13.3% of physiotherapists presented a high index, this result can be attributed to low remuneration and lack of professional recognition.

A study involving 151 Polish physiotherapists problematizes the lack of professional autonomy as an aggravating factor for SB development[12]. Similarly, a study involving 500 Japanese physiotherapists reported that the lack of autonomy of these professionals can trigger professional stress[22]. In the meantime, many health professionals glimpse the profession in the perspective of charity, expecting from the health service a reward expressed in personal gratification. This view may prevent the practitioner from looking at the stressors that are causing him / her harm[4].

It should be emphasized that the studied population was composed of professionals working in the ICU and UCO being mostly female, young adults, single, childless, with little time of training and work in ICU, with large weekly uninterrupted workload on duty and who have no other professional activity. A study involving eight professional groups (n = 4965) indicated that there is a greater chance of developing BS in women, suggesting that these differences may be greater in countries with medium or low developmental status[23]. Some female characteristics, such as forms of dedication, level of care, multiplicity of functions and affectivity may be associated with the presence of emotional exhaustion and the occurrence of SB[9].

As for the age group we find a population composed of young adults with a mean age of 27.9 years ranging from 23 to 40 years, which reflects the stage of the work life that these professionals meet. In this context, a cohort (n = 882) involving Physiotherapists pointed to age as a risk factor for BS development[24]. Another cross-sectional study (n = 80) identified that younger physiotherapists (ages 20-29) are more likely to report stress factors in the workplace[19].

In terms of training time and intensive care work time, an average of 4.1 ± 3.3 and 3.6 ± 2.7 years, respectively, indicates a concentration of young professionals, which means less professional maturity, since they are still starting their personal and professional experiences, which makes them more vulnerable to BS development. A study involving 200 Polish physiotherapists indicated greater professional satisfaction among physiotherapists who had more than 15 years in the profession than physical therapists who had between 0 and 15 years of service[9]. The literature points out that young people seek financial stability without often discerning the right and wrong in their profession, often generating professional frustrations that may trigger the syndrome under study[25].

The professionals reported that excessive noise, the number of patients per physiotherapist and the possibility of complications in the care of hospitalized patients are the main stressors that have a direct relationship with high levels of emotional exhaustion. Those professionals working in two hospitals also had a greater predisposition to develop SB.

The activities practiced during the free time of the physiotherapist as sports activities, leisure activities, computer use, study and reading, watching TV and Video, can contribute to reduce the daily stress provoked by the profession of the physiotherapist[24]. It can be noticed that 77.7% of the physiotherapists interviewed in this study reported little time for themselves, which is an aggravating factor for the development of burnout. In studies with oncologists physicians the lack of time to perform personal activities was pointed out as one of the main causes for the development of the syndrome[7]. Studies indicate that lack of free time was associated with BS in women, but not in men[9,26]. In our study, no associations were made between gender and BS predictors.

An important fact of this investigation is the fact that it has not identified in the literature studies that evaluate the frequency of BS in intensivist physiotherapists. These data are particularly relevant since the several studies that analyze the satisfaction of the work involving Physical Therapists adopt as selection criteria the professional bond dichotomized in public and private service, as well as do not consider the particularities of the work in the ICU. However, a recent systematic review involving 54 studies that brought direct comparisons of BS between ambulatory and intensive care physicians found greater emotional exhaustion among outpatients, except for depersonalization or professional achievement. The data of the aforementioned review did not allow the authors to affirm that BS is more frequent in intensive care physicians[3].

The limitations of this investigation are based on criteria of selection of the participants for convenience, by a non-probabilistic criterion. In addition, it is desirable that the criteria for identifying BS should be diagnosed, not performed in our study.

Conclusion

The frequency of BS assessed by MBI in intensivist physiotherapists was high, corresponding to 31.1%. The number of patients, as well as the number of patients attending per shift, contributes to a physical and mental overload of the professional, characterizing the work of physiotherapy as a risk factor for the incidence of SB. It is observed the need for more studies in the area, especially in intensivist physiotherapists, which would facilitate the understanding of the relationships of occupational, organizational and personal variables.

Authors' contributions

The authors Rosa FW, Silva TB, Duarte ACM, Souza MC and Burgos VM elaborated the initial idea and planned the paper /or interpreted the final results. Camelier FWR, Silva TB, Maciel RRBT, Portella DDA and Mercês MC wrote the article and reviewed successive versions. Camelier FWR, Silva TB, Maciel RRBT, Portella DDA, Duarte ACM, Souza MC and Burgos VM approved the final version of the article.

Conflicts of interest

No financial, legal or political conflict involving third parties (government, business and private foundations, etc.) was declared for any aspect of the work submitted (including but not limited to grants and funding, advisory council, study design, manuscript praparation, statistics analysis, etc).

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