Prevalence of Burnout Syndrome and Factors Associated with University Teachers

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Abstract

This is a systematic review that sought to identify the prevalence and factors associated with Burnout Syndrome in university teachers. The collection of the studies was done through descriptors in databases, which resulted in the selection of 8 articles. The prevalence for burnout had a small variation, but presented worrying values. The most frequent associated factors were: work overload, accumulation of activities beyond teaching, high employment ties, devaluation of the work performed and low remuneration. Burnout is still little recognized and studied in the category of university teachers, and it is difficult to identify an exact prevalence for this category. However, the associated factors are well defined and should be considered as a starting point for the prevention of the syndrome.

Keywords
Burnout; Teachers; Prevalence.

Introduction

The sickness due to work is linked to different factors and occupational stressors, as well as to the type of profession exercised. Nowadays, the
work occupies most of the time of the individuals, who begin to leave the society in order to dedicate themselves to this [1].

Work overload can trigger physical and mental exhaustion in the individual, and low professional achievement, inducing the exhaustion of the individual's emotional resources. When this overload is persistent, it can lead to the so-called Burnout Syndrome (SB) or Syndrome of the professional exhaustion, being also associated with other psychosomatic problems [2].

Burnout syndrome is a psychosocial phenomenon resulting from a chronic response to the stressors present in the work environment, especially when there is excessive pressure, conflicts, few emotional rewards and recognition [3].

The pioneer in describing SB was Freudenberg in 1974, defining it as a state of physical and mental exhaustion, accompanied by the loss of interest in work activity. However, the most accepted definition is that of Maslach and Jackson, who consider that "burnout is a type of occupational stress that affects professionals involved in any type of care in a direct, continuous and highly emotional relationship of attention". These authors developed a three-dimensional Maslach Burnout Inventory (MBI), composed of three dimensions: Emotional Exhaustion, Depersonalization and Low Professional Performance [4-6].

Although it is more accepted, the MBI has presented psychometric insufficiencies, when used in other countries, which led to the adaptation and validation, in Brazil, of a Spanish instrument to evaluate Burnout Syndrome, or Questionnaire for the Evolution of Burn Syndrome for work – “CESQT-PE” [7]. The CESQT differs from MBI because it considers four dimensions: Illusion for work; Psychic wear; Indolence, and Guilt [7, 8].

In Brazil, professionals who deal directly with the public, such as education and health, especially public order, are the most likely to develop burnout. This is due to the fact that these individuals do not have adequate resources for work, requiring an additional load of skills to deal with routine situations [9, 10].

In this line of reasoning, there is teaching and higher education in Brazil that have presented several flaws, among them a low quality academic formation, due to several factors, which stand out: low wages paid to teachers, unhealthy working conditions; Low professional recognition; Exploration of teaching work; Physical facilities, among others [10]. The International Labor Organization (ILO) has regarded teaching as a risk activity since 1981, with teachers being the world’s second-largest occupational category most affected by occupational diseases [11].

Although burnout is classified as occupational disease by Brazilian legislation, the causes and symptoms are still unknown by teachers, and prevention and health promotion actions are not valued by educational institutions. The excessive workload and collections that involve this profession, mainly in higher education are some characteristics present in the routine of these professionals, which make them more exhausting. These and other factors that are still little known have led these professionals to develop Burnout Syndrome, and it is essential to intensify studies that prioritize workers’ health and emphasize strategies to prevent this disease.

Thus, the present study aims to: identify the prevalence of Burnout Syndrome in university teachers; Describe factors associated with the disease; As well as to characterize the scientific production about Burnout Syndrome in university teachers.

Method
This is a systematic review of the literature that seeks to answer the following question: What is the prevalence of Burnout Syndrome and its associated factors in university professors? To carry out the review, seven steps were followed: 1- formulation
of the scientific question; 2 - location and selection of studies; 3 - critical evaluation of studies; 4 - data collection; 5 - analysis and presentation of data; 6 - data interpretation, 7 - improvement and updated revision [12].

This study was conducted with the participation of two researchers who independently evaluated the quality of each article. For that, a research protocol was created, being used in the search of articles, considering the forms of research, inclusion and exclusion criteria, definition of the variables of interest and the analysis of the results.

The research was conducted in national and international databases. Scientific works were searched in the Virtual Health Library (VHL), whose database was used in Latin American and Caribbean Literature in Health Sciences (LILACS); in PubMed, the database was the Medical Literature Analysis and Retrieval System Online (Medline); and in the library Scientific Electronic Library Online (SciElo). Baseline research was carried out in October and November 2016. The following descriptors were indexed in English and Portuguese, “burnout”, “professional exhaustion”, “teacher”, “university”; All interleaved by the Boolean operator “AND”, with which two combinations were performed (Table 1).

Thus, the selection criteria were: full text available; to have as main subject the professional exhaustion or burnout in university professors; Languages: English, Spanish or Portuguese; Published in the period from October to October 2016, in the format of article. We excluded texts dealing with burnout in elementary and middle school teachers; Documents in duplicate, in addition to those studies that did not directly address the issue in focus.

So, the research conducted found 299 studies. After filtering the manuscripts and applying the previously established selection criteria, 94 studies were found. Subsequently, the titles and abstracts were read, and finally, a thorough reading of the selected papers, with the conclusion of the filtration, there were 08 articles. It is noteworthy that both researchers obtained the same result, which allows a greater fidelity to the search process. This process can be seen in Table 1.

For the analysis and presentation of the articles an instrument was constructed with the categorical variables to be extracted from the articles: article number, authors, year of publication, journal name, impact factor, database, study site, article title, Prevalence of SB, characteristics of the sample, instrument used to identify burnout and factors associated with this syndrome. The analysis of the content found was developed in a systematic and critical way through the in-depth reading of the studies.

Table 1. Study search strategies, 2016

| Combination of descriptors/ Databases searched | Identification | Screening | Eligibility |
|-----------------------------------------------|----------------|-----------|-------------|
| Professional exhaustion and Teachers/burnout and faculty |                |           |             |
| LILACS                                       | 82             | 36        | 02          |
| MEDLINE                                      | 140            | 43        | 03          |
| SCIETO                                       | 05             | 02        | 01          |
| Professional exhaustion and Teachers and universities/ burnout and faculty and universities |                |           |             |
| LILACS                                       | 03             | 02        | 01          |
| MEDLINE                                      | 69             | 11        | 01          |
| SCIETO                                       | 00             | 00        | 00          |
| Total                                        | 299            | 94        | 08          |

Source: Research data, 2016.

Results and Discussion
For presentation and a better understanding of the results, they were organized in two tables. Table 2 allows to identify the characterization of the studies that treat SB in university professors, including the categorical variables: authors, year of publication, language, periodical, impact factor, database, cou-
Table 2. Characterization of the scientific production about Burnout Syndrome in university professors, 2016.

| N° | Authors | Year | Language | Newspaper | Impact factor | Base of data | Country of study | Title of study |
|----|---------|------|----------|------------|---------------|--------------|----------------|----------------|
| 01 | Bustaman | 2016 | Spanish | Medicina y seguridad del trabajo | Uninformed | Lilacs | Venezuela | Burnout in the teaching profession: a study in the bioanalysis school of the university of carabobo sede aragua, Venezuela |
| 02 | Correa-Correa | 2010 | Spanish | Rev. Salud pública. | 0.0779 | Medline | Colombia | Burnout syndrome in teachers of universities in popayán, Colombia |
| 03 | Costa | 2013 | Portuguese | Psicologia: reflexão e crítica | 1.124 | Lilacs | Brazil | Prevalence of burnout syndrome in a sample of Brazilian university professors |
| 04 | Mendonça; Coelho; Juca, | 2012 | Portuguese | Psicologia em pesquisa | Uninformed | Lilacs | Brazil | Burnout syndrome in teaching staff of a public institution |
| 05 | Souza; Mendonça, | 2009 | Portuguese | Revista Psicologia: teoria e pesquisa | Uninformed | Scielo | Brazil | Burnout in university professors: impact of perceptions of justice and affective commitment |
| 06 | Otero-lópez | 2008 | English | Psicothema | 1,245 | Medline | Spain | An integrating approach to the study of burnout in university professors |
| 07 | Tijdink; Vergouwen; Smulders, | 2014 | English | Tijdink et al. Bmc medical education | 1.312 | Medline | Holland | Emotional exhaustion and burnout among medical professors; a nationwide survey |
| 08 | Zhong | 2009 | English | Psychological reports, | 0.414 | Medline | China | Job stress, burnout, depression symptoms, and physical health among chinese university teachers |

Source: Research data

ntry and study title; In Table 3, it is possible to visualize the instrument used in the studies to identify the occurrence of SB among university professors; The prevalence of this work-related disease, as well as the factors associated with its occurrence in the public investigated.

It is observed that the articles found were carried out with university professors from several countries, Brazil being the most cited. With regard to languages, there is an equivalence between Portuguese, Spanish and English.

With regard to the year of publication, it is observed that, in the year 2008, scientific productions were included in this study, although articles published between 2006 and 2016 were adopted with inclusion criterion. This result suggests that The interest in studying SB is recent, mainly, in the higher education faculty. Regarding this lack of research that approaches the subject, authors point out the absence of studies on burnout, mainly that relate directly the theme in its three dimensions [13].

The journals in which the studies were published were not repeated, however, the great majority refer to journals of studies in the field of psychology. Although SB is a disease related to chronic stress, and should be treated through medical and psychological monitoring, the growth of its study in the nursing area has been observed, revealing the concern with this phenomenon [1, 10].
Another interesting fact that deserves attention is the item that considers the country in which the study was carried out, since most articles were developed in South America and Europe and only 1 in the Asian continent. Concern about Burnout Syndrome has been more emphatic in the countries of the American continents. However, Costa [14] points out that the incidence of SB in several countries has increased significantly in recent years, with estimates varying between 4% and 7%. Already another study, argues that the prevalence of burnout can vary between 4 and 5.7% depending on the professional class [15].

From the investigated studies, it was observed that 2,101 university professors participated, being 1218 (58%) male and 883 female (42%). The participants’ ages ranged from 22 to 79 years, and the most prevalent marital status was married. As can be filtered from each article, the vast majority have working time between 1 and 5 years, with a weekly working day between 20 to 65 hours.

Table 3 presents the characterization of the instruments used by the studies to identify the symptoms compatible with the burnout, as well as the identification of the prevalence and associated factors found. The most widely used instrument for identifying burnout was MBI. This is due to the fact that this instrument was the first to be created to identify the symptoms of the syndrome, and has been revalidated in several countries.

The literature indicates that the MBI has presented values that, many times, have not been considered reliable, besides presenting psychometric inadequacies, mainly, when used in languages other than English and Spanish. Therefore, the most current studies are seeking to use alternative instruments such as the CESQT [3, 8].

As for the prevalence, a variation between 9% and 23.8% was observed. The variability of the prevalence found may result from the different scenarios in which university teachers are found all over the world. Teachers from developed countries have a better prognosis for work-related diseases, given the better political and educational organization these countries have. However, teachers from developing countries, such as Brazil, present greater difficulties in terms of physical and pedagogical structure and, therefore, tend to show higher pre-

Table 3. Instrument used for Burnout Identification, prevalence and factors associated with Burnout Syndrome in university professors, 2016.

| Nº | Instrument | n  | Prevalence SB | Associated factors |
|----|------------|----|---------------|--------------------|
| 01 | MBI        | 45 | 16%           | Devaluation of teaching work; Insufficient rewards; Lack of autonomy; |
| 02 | MBI        | 44 | 9%            | Excessive working hours; Many employment relationships; Social and psychological vulnerability; |
| 03 | CESQT - PE | 169| 14,2%         | Work overload; Role ambiguity; Conflicts; Students’ posture; Absence of social support; |
| 04 | MBI        | 60 | High          | Accumulation and conciliation of teaching, research and extension activities, excessive bureaucracy; |
| 05 | MBI        | 233| High          | Evaluation of performance, overload, social support and ascension and salary; Social support factors and overload; Neurotic, introverted, and prestige teachers; |
| 06 | MBI        | 813| High (DP=0,45; EE= 0,29) | Workload and work links; |
| 07 | MBI        | 437| 23,8%         | Early career; Small children; |
| 08 | MBI        | 300| High (µ MBI>2,0) | Daily annoyances; Lack of optimism; Time of profession and weekly hours worked; Behavioral pattern, intrinsic factors to work, interpersonal relations and professional achievement. |

Source: Research data, 2016. MBI: Maslach Burnout Inventory; CESQT - PE: Questionnaire for the Evolution of Burn Syndrome by work. EE: Emotional exhaustion; DP: Demersification
valences, as could be seen in studies 03, 04 and 05 (Table 2).

It was also noticed that the highest rates of burnout are presented by teachers who deal with levels of education with adolescents and university students, especially the higher education teacher, who must reconcile teaching, research and extension activities, attending to related issues To scientific production, as well as performing administrative activities [16].

Similar estimates were presented in studies 01 and 03, with prevalence for SB in 16% and 14.2%, respectively. Both reflect that although the numerical values are not high, the prevalence is significant, mainly because many teachers are in the risk range, being classified as average level for symptoms of burnout [17, 18].

Another important finding about the prevalence of this syndrome is brought in studies 02 and 08, in which it was verified that the dimensions related to emotional exhaustion/psychic exhaustion and depersonalization/indolence are frequent in upper level teachers and are the main formators of the SB, Mainly in individuals between 20 and 40 years [19, 20].

The mediating effect of the exhaustion between occupational stress and mental and physical health among university professors was also confirmed in article 08. In an innovative way, the study informs that because burnout is the first reaction to stress at work, it is paramount that university professors are Regularly evaluated in the work environment, so that interventions can be administered in a timely manner, avoiding even worse consequences for the health of these workers [21].

It should be noted that the identification of prevalence in the studies was difficult, since most of them presented the results based on the dimensions. The same happened in a systematic review study carried out with primary and secondary school teachers, which also obtained this same difficulty, revealing a gap regarding the use of the instrument in an adequate way, which can identify the classification at low, medium or high level Risk for burnout [22].

Mendonça et al., evaluated 60 teachers, whose majority held a management position, had a weekly workload of between 20 and 65 hours and worked in more than one educational institution, and was able to verify that the higher the demand for work, the higher the Emotional exhaustion, depersonalization and the feeling of non-fulfillment [16].

So, the associated factors reported by the studies are very similar, ranging from non-recognition to social and professional; Devaluation of teaching work; Few rewards about the work done; Lack of autonomy in professional practice; Greater number of employment links; Accumulation and conciliation of teaching, research and extension activities, to the individual's psychological and social factors [17, 18, 19, 20, 21, 23]. It is important to emphasize that one of the studies adds that teachers without social support, neurotic, introverted and with little prestige are even more likely to develop the syndrome [16].

Regarding the associated factors, studies show that some professions present greater exposures in their work environments, as is the case of health professionals and education [8, 10, 24]. In the educational universe, Brazil has undergone several transformations, bringing new demands and skills that modify the teaching activity, not having a compatible structure to do so, lead to a great overload of work [22].

In this context, the study corroborates with the findings in this review, and mention as main factors associated with SB: workload and complexity of the questions in the classroom [22]. The complexity of the teaching profession, as well as the demands of the class, leads the teacher to transcend the intellectual field. This is charged to present an efficient and dynamic learning, in addition to developing facets capable of balancing the psychological and affective factor of the students [23]. (Table 3)
Conclusion
The present study could verify that the prevalence of Burnout Syndrome in university professors is still little known and studied. The literature found is still incipient to be able to identify a profile of the sickness of teachers due to this pathology, which makes it difficult to carry out health promotion actions with a focus on prevention.

Despite the scarcity of studies that approach the subject, it was possible, through the scientific productions found, to meet the objectives proposed by this study, once it was identified as to the prevalence for the occurrence of SB among decent upper level, that variation is from 9% to 23.8%. In addition, the main factors associated with the disease, the excessive workload and the complexity of teaching activities, ranging from the professional devaluation, the posture of students and the accumulation and conciliation of teaching, research and extension activities were highlighted.

The investigation of the associated factors allows the identification of the risks present in the work environment, which can be prevented, for the most part, by the institution itself. These findings can also subsidize ways of assisting the teaching community by seeking a better quality of life at work and, as a consequence, better educational levels.

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