

PSYCHOSOCIAL FACTORS AND BURNOUT SYNDROME AMONG TEACHERS IN ELEMENTARY EDUCATION

Maira Cazeto Lopes de Souza ¹; Fábio Peron Carballo ¹; Sérgio Roberto de Lucca ¹

ABSTRACT

Burnout Syndrome is a disorder resulting from chronic stress at work. It affects workers from different areas, including teachers. This is a systematic review study with the objective of verifying the association between psychosocial factors at work (PFW) and burnout in elementary education teachers. Articles from the PubMed, Scielo and Capes Journals databases, published between 2014 and 2018, that used the Maslach Burnout Inventory in the burnout evaluation were analyzed. The results showed a variable prevalence of burnout among teachers. In addition to infrastructure problems, high work demands, lack of autonomy, poor quality of relationships, and physical and psychological violence experienced in schools were the main risk factors for burnout. It is recommendable that we consider the psychosocial and organizational factors of work in the prevention actions of Burnout Syndrome.

Key words: burnout; teachers; basic school

Factores psicosociales y síndrome de burnout en profesores de la enseñanza básica

RESUMEN

La Síndrome de *Burnout* (SB) es una enfermedad resultante de estrés crónico en el trabajo que acomete trabajadores de distintas áreas, incluso profesores. Este es un estudio de revisión sistemática con objetivo de verificar la asociación entre los factores psicosociales del trabajo (FPT), las características individuales y la SB en profesores de la red básica de enseñanza. Se analizaron artículos de las bases de datos PubMed, Scielo y Periódicos Capes, publicados entre 2014 y 2018, y que utilizaron el *Maslach Burnout Inventory* en la evaluación de SB. Los resultados evidenciaron prevalencia variable de SB entre los docentes. Además de los problemas de infraestructura, las elevadas demandas de trabajo, la falta de autonomía, la mala calidad de los relacionamientos y la violencia física y psicológica, vivenciados en las escuelas fueron los principales factores de riesgo para la SB. Se sugiere considerar los factores psicosociales y organizacionales del trabajo en las acciones de prevención de la Síndrome de *Burnout*.

Palabras clave: burnout; profesores; enseñanza básica

Fatores psicossociais e síndrome de *burnout* em professores da educação básica

RESUMO

A Síndrome de *Burnout* (SB) é uma doença resultante de estresse crônico no trabalho que acomete trabalhadores de diferentes áreas, inclusive professores. Este é um estudo de revisão sistemática com objetivo de verificar a associação entre os fatores psicossociais do trabalho (FPT), as características individuais e a SB em professores da rede de Educação Básica. Foram analisados artigos das bases de dados PubMed, Scielo e Periódicos Capes, publicados entre 2014 e 2018, e que utilizaram o *Maslach Burnout Inventory* na avaliação de SB. Os resultados evidenciaram prevalência variável de SB entre os docentes. Além dos problemas de infraestrutura, as elevadas demandas de trabalho, a falta de autonomia, a qualidade ruim dos relacionamentos e a violência física e psicológica vivenciada nas escolas foram os principais fatores de risco para a SB. Sugere-se considerar os fatores psicossociais e organizacionais do trabalho nas ações de prevenção da Síndrome de *Burnout*.

Palavras-chave: burnout; professores; educação básica.

¹ Universidade Estadual de Campinas – Campinas – SP– Brasil; mairamovimental@gmail.com; peronmg@hotmail.com; slucca@unicamp.br

INTRODUCTION

According to the literature, new information technologies, organizational changes, management models, Psychosocial Factors at Work (FPTs), and organizational changes are associated to work-related stress experienced by workers. Chronical stress at work contributes to the physical and mental illness among workers from diverse areas, including teachers, whose segment possesses rates of disengagement due to mental disorder as the first cause of work-related illnesses (Carlotto, da Silva Dias, Batista, & Diehl, 2015; Cericato, 2017).

After the 1990s, Brazil has gone through educational reforms and greater pedagogical, administrative, and financial autonomy at schools. Among organizational and school management aspects, there is a highlight on the adoption of excellence, efficacy, and productivity. However, performance expectations and the rising number of students per classroom contributed to an overload of work for teachers (Batista et al., 2016).

On the other hand, there is an amplification of teachers' activities regarding responsibility and diversity, making their practice change from professional into more technical and administrative. Besides that, the expectations by society and by institutions, by parents and by the students themselves made teachers hostages and victims of an enormous psychological overload and, most often, physical and mental disease (Diehl & Marin, 2016).

Changes in the organization of work, the excess of tasks, the increase in the number of students per classroom, multi-tasking, inadequate/undisciplined student behavior, bad working conditions, lack of autonomy to fix institutional problems, and the absence of recognition are some of the psychosocial factors at work for teachers that lead to illness and disengagement from work among this professional category (Carballo, 2017; Desouky & Allam, 2017; Lima & Morais, 2018).

Common mental disorders, including depression and anxiety, are major causes of disengagement by teachers from work (Desouky & Allam, 2017; Tostes, Albuquerque, Silva, & Pettele, 2018). Among mental disorders related to work, literature points at the association among psychosocial factor at work and chronical labor stress with the onset of the Burnout syndrome (SB) (Maslach & Jackson, 1981; Esteves-Ferreira, Santos, & Rigolon, 2014; Dalcin & Carlotto, 2018).

The Burnout Syndrome is a psychosocial phenomenon, composed by a set of physical and psychical symptoms, as an answer to chronical stress at work, and characterized by three dimensions: emotional exhaustion (EE), manifested by means of lack of energy and emotional breakdown; depersonalization (DE), when there is an effective distance among students, patients, or co-workers, and poor Professional Realization (RP), evidenced by behaviors of low self-esteem in professional competence and a tendency towards social isolation. The

syndrome is most prevalent among professionals that deal with people, including the Areas of Education and Health (Freudenberger, 1974; Maslach & Jackson, 1981; Esteves-Ferreira et al., 2014; Carlotto & Câmara, 2017).

Concerning the teachers, studies point at the growth of the prevalence of burnout at all levels of education and its connection with the FPTs and work-related stress. (Carvalho & Santos, 2016; Carlotto & Câmara, 2017).

The prevalence of BS among teachers is quite changeable because there are several instruments with different criteria in order to produce a concept of burnout. The Maslach Burnout Inventory MBI and the MBI- *Educators Survey* for teachers are the most often used instruments for scientific investigation (Maslach & Jackson, 1981; Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986). The most important inclusion criterion in this study was the use of the MBI and the Educators Survey version and the concept of BS defined by the authors of the instrument: severe emotional breakdown, severe depersonalization, and poor professional realization simultaneously.

After the review of literature, this study aimed at verifying the prevalence of BS among elementary school teachers and possible associations with the FPTs and the teachers' individual characteristics.

METHODS

A systematic review of literature was realized in accordance with the PRISMA criteria and the proposed objectives regarding the prevalence of burnout and associations of the psychosocial factors of risk and of protection.

The process for the selection of articles observed the following criteria: 1) selection of the PubMed, Scielo, and Capes databases, and of the Portuguese language descriptors: "professional exhaustion" or "burnout", and "teachers"; "stress" and "teachers" and respective descriptors in the Spanish and English language, published in the period from January 2014 to December 2018; 2) Selection of articles from the search databanks, reading of the titles or abstracts and verification for duplication; 3) Exclusion of duplicated articles, articles cannot be the result of field research, researchers did not use the MBI instrument, or the concept of BS defined by Maslach and Jackson (1981), samples that were smaller than 50 participants and that did not specify the inclusion of teachers in elementary school; 4) a complete reading of the eligible articles and choice of studies included in the references of the present study.

Two independent researchers went on with the search for studies in accordance with the previously defined criteria. A third researcher arbitrated the articles when they were selected by only one of the researchers. The completed articles were read by the three researchers.

Illustration 1 represented the flowchart or

methodological trajectory of inclusion or exclusion and the final identification of the selected studies in this review.

Articles excluded after a reading of the titles or abstracts and checkout for duplication. n = 922. Reasons for exclusion – no association of the FPTs with BS (n = 897). Sample with less than 50 participants and not specifically made up of elementary school teachers (n = 27). Not being the result of field research (n = 9). No employment of Marlach & Jackson BS (n = 16).

. Articles included in the systematic review. N = 7

RESULTS

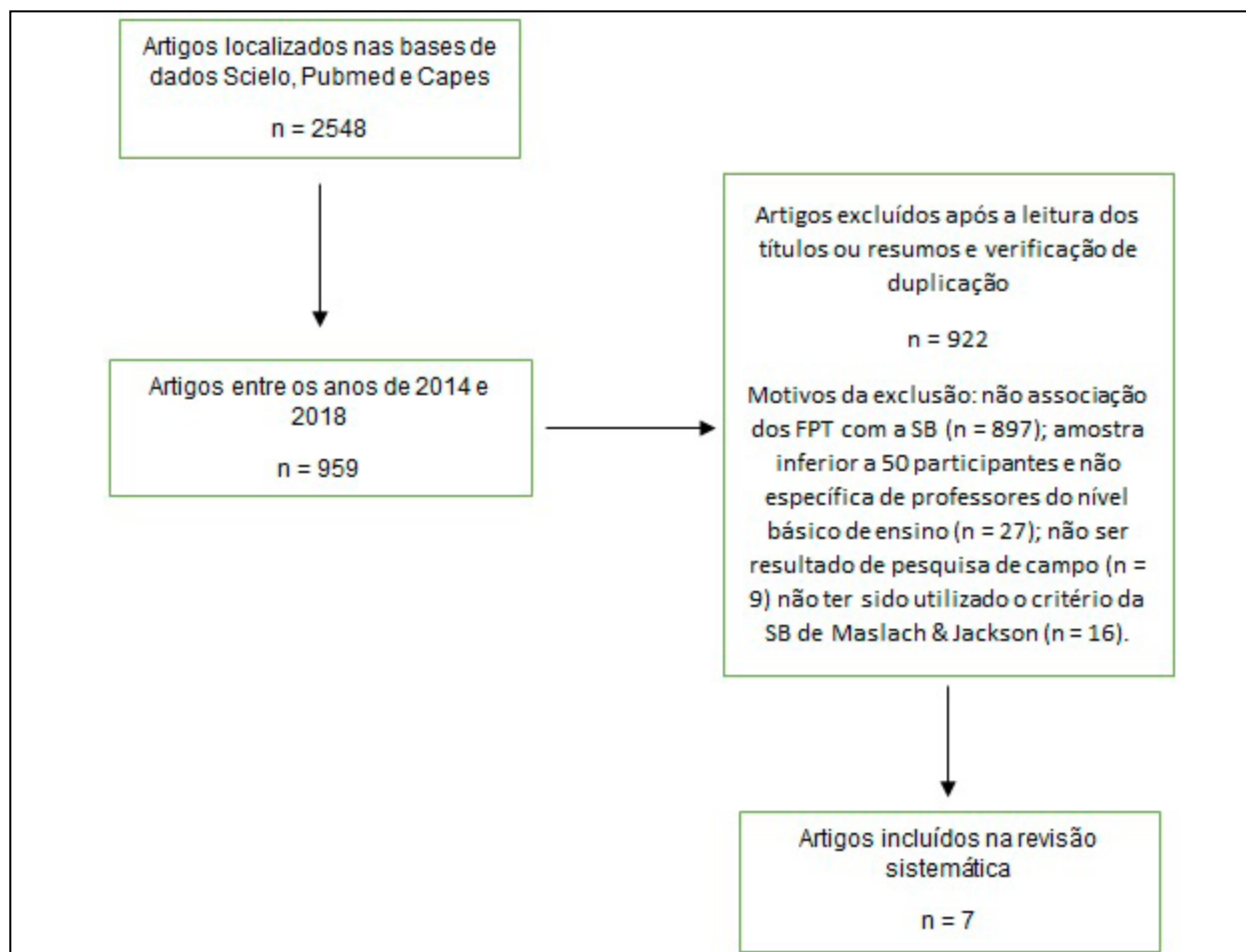
The results of the selected studies in the present review totaled a sample of 5.361 teachers of Elementary

and High School. There was a predominance of female teachers, an average 72% percent of the sample, while only the study by Bayani and Bagheri (2018) presented a total number of male teachers that was larger than the number of women. The average age of the teachers was 42 years (DP between 7 and 9 years). All research works presented transversal design and the use of the self-applied form for participants, containing biosocial information and the *Maslach Burnout Inventory* (MBI).

Considering that BS is a negative final outcome for the health of teachers, it is fundamental that researchers identify risk factors, that is, primary causes of stress in the work environment of schools and the vulnerability situation of teachers.

Table I highlights major FPTs, working conditions, and some individual characteristics of teachers and

Ilustraion 1. Methodological trajectory of Inclusion and Exclusion and Selection of Reviewed Articles.



Translator's note:

. Articles located in the in the Scielo, Pubmed, and Capes databases. n = 2548

. Articles from 2014 to 2018. n = 959

. Articles excluded after a reading of the titles or abstracts and checkout for duplication. n = 922. Reasons for exclusion – no association of the FPTs with BS (n = 897). Sample with less than 50 participants and not specifically made up of elementary school teachers (n = 27). Not being the result of field research (n = 9). No employment of Marlach & Jackson BS (n = 16).

. Articles included in the systematic review. N = 7

BOX 1: Most important results and associations between psychosocial and individual variables of the teachers in the reviewed studies

Authors	Type of study	Sample	Results
Skaalvik and Skaalvik 2014 (Norway)	Transversal	2.569 teachers in elementary education and high school	There was positive association between self-efficacy (self-perception of competence) and the perception of autonomy by the teachers with the RP, when separately assessed; the EE presented negative association with such variables.
Koga et al., 2015 (Brazil)	Transversal	804 teachers from public and private institutions, in elementary education and high school	There was positive association between the worst levels of the three dimensions of BS with the bad/regular relationship effect on the students; the bad/regular relationship factors on parents and the lack of time for family or leisure had a positive association with EE and with DE, which is also positively associated with physical violence, number of students that is considered bad/regular and bad infra-structure at school and poor RP with the lack of opportunity for expressing opinion at work.
Wang et al., 2015 (China)	Transversal	559 Teachers from elementary education and junior high	There was positive association between work-related stress and BS; 11,98% of the teachers presented EE and this dimension was positively associated with high demand for work, high commitment and poor skills for fixing problems; 5,5% presented DE, which was associated with low gratification (low self-esteem, low gratification, difficulties in career growth), poor skills for fixing problems, high commitment, and low support by supervisors, 26,85% presented poor RP, which was associated with low support by peers, low gratification, poor skills for fixing problems, high demand for work and, as a consequence, insufficient time for family.
Rey, Extremera, and Pena, 2016 (Spain)	Transversal	489 basic education teachers	There was positive association between EE / DE and stress, and less emotional competence. RP was negatively associated with stress. It was possible to reach the conclusion that the less emotional competence by the teacher, the greater the stress, leading to a greater chance for the onset of BS.
Bernotaite and Malinauskiene, 2017 (Lithuania)	Transversal	517 high school teachers	25,6% of the sample presented EE, 33,7% presented low RP and these two dimensions were positively associated with the psychological stress factor; 10,6% of the teachers presented DE. There was significant correlation between moral harassment at work and the emotional exhaustion and depersonalization dimensions, but with very low values. Almost half of the interviewees (47,4%) reported tension at work, and 59,6% was provided low social support at work.
Szigeti et al., 2017 (Hungary)	Transversal	211 elementary education teachers	There was positive association between the depression and burnout symptoms in general, though there was no specific association between one of the three dimensions and such symptoms. The rates were: 13% of EE, 11% of DE and 17% of low professional realization.
Bayani and Bagheri, 2018 (Iran)	Transversal	212 elementary education teachers	There was positive association of the individual and organizational factors at work with the three dimensions of BS (47% of EE, 28% of DE and 54% of poor RP). Low efficacy was positively associated with DE and poor RP, low self-esteem was associated with EE, DE and poor RP. The research suggested that the interaction between psychosocial/organizational factors and individual characteristics might be leading teachers to develop BS.

Source: research data

the association of these variables with BS, or which of the dimensions: High Emotional Exhaustion (EE), High Depersonalization (DE), and poor Professional Realization (RP) had greater prevalence.

In addition to the data above, in three of the reviewed studies, it was possible to verify that the samples were exclusively made up of teachers from public schools (Wang et al., 2015; Koga et al., 2015; Bernotaite & Malinauskiene, 2017). In another study, 81,8% of the sample participants were from public schools (Rey, Extremera, & Pena, 2016). In the other studies, it was not possible to obtain that information (Skaalvik & Skaalvik, 2014; Szigeti, Balázs, Bikfalvi, & Urbán, 2017; Bayani & Bagheri, 2018).

In the study by Koga et al. (2015), in the EE dimension, age was not significant; while in the DE dimension, the teachers who were younger than 35 years presented prevalence of the EE dimension, and age was not significant; while in the DE dimension, the teachers who were younger than 35 presented prevalence almost twice as much in comparison with older ones; in turn, teachers who were younger than 35, and the teachers who were between 35 and 44, presented prevalence approximately three times larger than the one presented by the participants who were older than 55. Besides that, the study evidenced that having less profession time was associated with the highest rates of poor professional realization and that work-related factors had positive association with BS, except for profession time and weekly hours in the classroom.

On the other hand, Bernotaite and Malinauskiene (2017) verified that the different age groups did not influence stress levels by the teachers in the studied sample. Besides that, it was possible to observe that psychological stress associated with moral harassment at work affected more female than male teachers. Another verified aspect was a significant association between psychological stress and tense situations at work, low social support, and the three dimensions of burnout (EE, DE and poor RP). In all adjusted analysis, a significant association was found between moral harassment at work and psychological stress. In the study by Szigeti et al. (2017), there was significant association between depression symptoms and BS, and between burnout and excessive feeling of commitment by the teachers.

Wang et al. (2015) demonstrated in their study that the female teachers presented higher levels of EE when compared to male teachers. Another aspect that was observed was that teachers who reported having a partner presented lesser rates of EE when compared to single, divorced, or widowed participants. Concerning age, it was verified that the age group between 30 and 40 years was the one with the higher levels of EE. Regarding profession time, teachers who have careers between 10 and 20 years long and the ones who work over 40 weekly hours were the ones who presented the most

elevated levels of EE in comparison to other categories. It was also emphasized that high emotional demands and high demands for work for teachers increase the risk for *burnout*.

In the studies by Skaalvik and Skaalvik (2014) and Rey et al. (2016), it was evidenced that the perception of emotional competence (self-efficacy) might reduce the perception of stress by teachers, while decreasing the chance for development of BS, regardless of age, sex, and levels of education where they operate. Still in the study by Rey et al., it was observed that the teachers who reported having more difficulty in the management of stress situations had more chances for developing feelings of exhaustion and greater disconnection and cynicism (DE) regarding their work and the students.

DISCUSSION

The teaching profession is permeated by situations that might lead to physical as well as emotional exhaustion, due to precarious work conditions, associated to infrastructure, peculiar characteristics of the organization of the educational system in public and private schools, and psychosocial factors that contribute to illness among teachers and the development of BS.

National and international research works on the Syndrome of Burnout reveal the elevated prevalence of this occurrence among teachers (Campelo & Oliveira, 2014; Kidger et al., 2016; da Silva, Menezes, & Cassundé, 2016). The results of the articles assessed in this review evidenced the relevance of psychosocial and organizational factors at work among major causes of occupational stress and psychological disorders in this professional category, including BS.

Concerning the dimensions of BS in the reviewed studies, Emotional Exhaustion (EE) presented strong association with FPTs, and with some individual characteristics of the teachers. In this sense, positive correlations were found in the Emotional Exhaustion Dimension with the following variables: high demands for work and high commitment (Wang et al., 2015); low emotional competence/poor skills for fixing problems (Wang et al., 2015; Rey et al., 2016); bad/regular relationship with parents and lack of time for family or leisure (Koga et al., 2015); stress (Rey et al., 2016; Bernotaite & Malinauskiene, 2017); moral harassment at work (Bernotaite & Malinauskiene, 2017); depression symptoms (Szigeti et al., 2017); and low self-esteem (Bayani & Bagheri, 2018).

Similar results were found in other studies (Esteves-Ferreira et al., 2014); Diehl & Marin, 2016; Lima & Morais, 2018). Aspects related to a lack of interest by the students, inadequate conditions, high demand for work and feelings of underappreciation were reported as responsible for the reduction in enthusiasm and risk for illness among teachers. Loss of enthusiasm is a common symptom of emotional exhaustion, as well as

lethargy, and the perception of exhaustion of resources (Maslach et al., 1986).

Elevated depersonalization (DP) was related to the following factors: low self-esteem and less emotional competence/poor skills for fixing problems (Wang et al., 2015; Rey et al., 2016; Bayani & Bagheri, 2018); high commitment and low support by supervisors (Wang et al., 2015); bad/regular relationship with parents and lack of time for family or leisure, number of students that is considered bad/regular, bad infrastructure at school, and physical violence (Koga et al., 2015); stress and depression symptoms (Rey et al., 2016; Szigeti et al., 2017).

Poor professional realization (RP) was associated to factors such as: low skills for fixing problems (Wang et al., 2015; Bayani & Bagheri, 2018); low support by peers, high demands for work, and lack of time for family and leisure (Wang et al., 2015); lack of opportunities for expressing opinion at work (Koga et al., 2015); stress (Rey et al., 2016; Bernotaite & Malinauskiene, 2017); depression symptoms (Szigeti et al., 2017); low self-esteem (Bayani & Bagheri, 2018). In the study by Skaalvik and Skaalvik (2014), the RP was associated with self-efficacy and the autonomy of teachers.

Self-efficiency or competence plays the role of mediator between stress at work and BS and helps teachers create a work environment that is more favorable to the good management of work-related stress, in addition to mitigating the effects of the psychological demands required by their professional activities (Carlotto et al., 2015).

Regarding resilience, studies by Skaalvik and Skaalvik (2014), Rey et al. (2016) and Capelo and Pocinho (2016) reported that the teachers who presented more competence/skills were more efficient when dealing with unsuitable behaviors/indiscipline by students and presented lower levels of stress, especially men who were in the profession for over 10 years.

In two other reviewed studies, the teachers presented greater prevalence of psychological stress and EE when a sex-adjusted analysis is conducted (Wang et al., 2015; Bernotaite & Malinauskiene, 2017). In most societies, women hold doubled working hours in their lives, and take on more responsibilities than their husbands, because their routines are based on professional lives and domestic chores (Wang et al., 2015). Besides that, according to Carvalho and Santos (2016), the difficulty in the conciliation between work-home that is felt by women constitutes a relevant psychosocial dimension as a predictor of BS.

Another relevant fact to be taken into account regarding BS is the age of teachers. In another study by Koga et al. (2015) the younger teachers in the sample presented high rates in the three dimensions of burnout, with greater impact in depersonalization, and low professional realization. In the study by Wang et al. (2015), the greater prevalence of EE among teachers

between 30 and 40 years of age was attributed to the lack of experience by teachers who are younger than 30 and the fact that the ones above 40 are located at higher positions (leading positions).

Symptoms of stress and depression can also be considered predictors of Burnout because they appeared associated with BS in three of the seven reviewed articles (Rey et al., 2016; Bernotaite & Malinauskiene, 2017; Szigeti et al., 2017). Other studies also found positive associations of stress and depression with BS (Cezar-Vaz et al., 2015; Capelo & Pocinho, 2016). A study realized with teachers of elementary school and high school identified depression in 23% of the participants, which was also positively correlated to burnout (Silva, Bolsoni-Silva, & Loureiro, 2018).

Besides that, changes in the profile of teachers in public education characterized by the predominance of women, older than 40 and with higher salaries than the ones received by high school teachers, are falling sick (Hirata, Oliveira, & Mereb, 2019). In six studies of this review, the female sex was predominant among teachers and ranged between 67% and 87% (Skaalvik & Skaalvik, 2014; Koga et al., 2015; Wang et al., 2015; Rey et al., 2016; Bernotaite & Malinauskiene, 2017; Szigeti et al., 2017).

In the study by Esteves-Ferreira et al. (2014), the teachers of public schools presented more characteristics that were predictors of BS when compared to the ones at private schools. Besides that, it was possible to identify differences in infrastructure, socioeconomic conditions, number of students in classrooms and institutional expectations regarding results, according to what was verified in the study also in the study by Koga et al. (2015) in the present review. However, other studies such as the one by Borba, Diehl, dos Santos, Monteiro and Marin (2015) did not find any significant statistical differences between the two types of institutions. The elevated proportion in the number of registrations by teachers is another factor that might contribute to the high prevalence of BS among teachers from public schools, when compared to private schools, especially high school, between 16,9 and 9,4 registered students, respectively (Hirata et al., 2019). As a member of the Organization for Cooperation and Economic Development, or "Organização para a Cooperação e Desenvolvimento Econômico" - OCDE, Brazil participates in the international assessment of educational performance by students. This program represents a further overload in the teachers' activities at the public schools. However, improvements in working conditions are not discussed (Lenkeit & Caro, 2014).

BS is characterized by chronical exposition to psychosocial factors at work that trigger stress among teachers, and according to the evidence by the selected studies, the teachers' burnout does not appear brusquely, but as a final outcome of individual resistance

to the continuous process of inadequacy in the working environment.

Among the precarious objective situations pointed by the teachers, there was a highlight on the lack of pedagogical material and of resources and audio-visual equipment, poorly dimensioned classrooms, and the elevated number of students. Regarding subjective aspects such as the meaning and sense of work, the teachers pointed at moral harassment by the students, students' parents, lack of support, the difficulty to deal with classroom problems and in conciliating work with family and leisure time as contributors to low self-esteem and category dissatisfaction.

On the other hand, among psychosocial factors there is a highlight on work demands, since teachers give an increasing number of classroom hours in order to keep up with existing demands and pressures. Thus, the stress experienced in the everyday lives of teachers leads to negative results such as physical and emotional problems as well as BS.

Despite economic and sociocultural differences among the investigated countries in this review, the studies hint at an increase in the risk for mental illness among teachers and a significant association of the FPTs with the development of BS. The FPTs and the working conditions of schools, when associated with individual and subjective characteristics of teachers, contribute to the development of chronic stress, especially at public schools.

Regarding the limits of the study, it is possible to point out that this research was realized with cross-sectional studies. In this type of study, it is not possible to establish a causal link, and researchers are limited to pointing at associations between the studied variables. Another limitation in this review regarded the restriction in the number of selected studies due to the selection of research works, for comparison ends, which use only Maslach's MBI for the assessment of BS, and the relatively short period (five years).

Evidence provided by studies points at a consensus that there is an interaction of psychosocial/organizational factors in the teaching profession and the individual characteristics of the teachers in the Elementary Education system, and this scenario leads to BS. That syndrome presents itself in different forms, also depending on social and cultural factors experienced by teachers.

The results of this review based on the on the negative final outcome of the Burnout Syndrome, and respective associations are important as a diagnosis for the situation of teachers in elementary education schools. However, the prevention of these occurrences requires actions regarding psychosocial factors at work.

CONCLUSION

This review verified that teachers in Elementary

Education, especially at public schools, often go through physical and emotional suffering due to infrastructure problems and psychosocial factors at work that are related to high work demands, lack of autonomy, bad quality relationships, and violence. These factors contributed to the development of BS.

It was also possible to evidence that the most committed teachers, with low resilience and self-esteem, and who presented symptoms of anxiety and depression present themselves with higher risk of BS, although it was not possible to establish a causal link produced by the cross-sectional outlines of the selected studies.

Concerning socio-demographical factors, the most relevant factor brought to evidence by the studies concerns gender. Women proved more susceptible to burnout. Other factors (age, marital status, time in the profession) presented varied results, and it was not possible to draw a scenario.

Results suggest that longitudinal studies be developed on the prevalence of BS among the teachers in the elementary education system, with actions of intervention and of monitoring of results for the establishment of a causal link between psychosocial factors at work, and the biosocial and professional characteristics of the teachers.

REFERENCES

- Batista, J. B. V.; Carlotto, M. S.; de Oliveira, M. N.; Zaccara, A. A. L.; de Oliveira Barros, E.; Duarte, M. C. S. (2016). Transtornos mentais em professores universitários: estudo em um serviço de perícia médica. *Revista de Pesquisa: Cuidado é Fundamental*, 8 (2), 4538-4548. <https://doi.org/10.9789/2175-5361.2016.v8i2.4538-4548>
- Bayani, A. A.; Bagheri, H. (2018). Exploring the Influence of Self-Efficacy, School Context and Self-Esteem on Job Burnout of Iranian Muslim Teachers: A Path Model Approach. *Journal of religion and health*, 59(1):154-162. <https://doi.org/10.1016/j.ijnurstu.2014.11.004>
- Bernotaite, L.; Malinauskiene, V. (2017). Workplace bullying and mental health among teachers in relation to psychosocial job characteristics and burnout. *International journal of occupational medicine and environmental health*, 30 (4), 629-640. <https://doi.org/10.13075/ijomeh.1896.00943>
- Borba, B. M. R.; Diehl, L.; dos Santos, A. S.; Monteiro, J. K.; Marin, A. H. (2015). Síndrome de Burnout em professores: estudo comparativo entre o ensino público e privado. *Psicologia Argumento*, 33(80). <https://doi.org/10.7213/psicol.argum.33.080.A004>
- Campelo, M. P. S.; de Oliveira, S. M. (2014). Análise da Produção sobre a Síndrome de Burnout em professores, de 2002 a 2013. *Id on Line Revista de Psicologia*, 8 (23), 243-253.
- Capelo, R.; Pocinho, M. (2016). Estratégias de coping: contributos para a diminuição do stress docente. *Psicologia, Saúde & Doenças*, 17(2), 282-294. <http://dx.doi.org/10.15309/16psd170213>
- Carballo, F. (2017). *Qualidade de Vida, Saúde do Trabalhador e a Síndrome de Burnout: A Docência em Alerta*. Curitiba: CRV.

- Carlotto, M. S.; Câmara, S. G. (2017). Riesgos psicosociales asociados con el síndrome de burnout en profesores universitarios. *Avances en Psicología Latinoamericana*, 35(3), 447-457. <https://doi.org/10.12804/revistas.urosario.edu.co/apl/a.4036>
- Carlotto, M. S.; da Silva Dias, S. R.; Batista, J. B. V.; Diehl, L. (2015). O papel mediador da autoeficácia na relação entre a sobrecarga de trabalho e as dimensões de Burnout em professores. *Psico-USF*, 20(1), 13-23. <https://doi.org/10.1590/1413-82712015200102>
- Carvalho, G. L.; Santos, W. L. (2016). Síndrome de Burnout em professores da facesa-faculdade de ciências educação sena aires. *Revista de Divulgação Científica Sena Aires*, 5 (2), 150-157. Recovered from <http://revistafacesa.senaaires.com.br/index.php/revisa/article/view/266>
- Cericato, I. L. (2017). Sentidos e Significados da Docência, segundo uma Professora Iniciante. *Educação & Realidade*, 42(2). <https://doi.org/10.1590/2175-623657738>
- Da Silva, Q. L.; Menezes, T. F. A.; Cassundé, F. R. S. A. (2016). Esgotamento Psicológico no Trabalho: uma análise sob a ótica da Síndrome de Burnout em Professores do Ensino Fundamental. *Id on Line Revista de Psicologia*, 10(29). 37-50. <https://doi.org/10.14295/online.v10i1.383>
- Dalcin, L.; Carlotto, M. S. (2018). Avaliação de efeito de uma intervenção para a Síndrome de Burnout em professores. *Psicologia Escolar e Educacional*, 22(1), 141-150. <https://doi.org/10.1590/2175-35392018013718>
- Desouky, D.; Allam, H. (2017). Occupational stress, anxiety and depression among Egyptian teachers. *Journal of epidemiology and global health*, 7(3), 191-198. <https://doi.org/10.1016/j.jegh.2017.06.002>
- Diehl, L.; Marin, A. H. (2016). Adoecimento mental em professores brasileiros: revisão sistemática da literatura. *Estudos Interdisciplinares em Psicologia*, 7(2), 64-85. <https://doi.org/10.5433/2236-6407.2016v7n2p64>
- Esteves-Ferreira, A. A.; Santos, D. E.; Rigolon, R. G. (2014). Avaliação comparativa dos sintomas da síndrome de burnout em professores de escolas públicas e privadas. *Revista Brasileira de Educação*, 19(59). <https://doi.org/10.1590/S1413-24782014000900009>
- Freudenberger, H. J. (1974). Staff burn-out. *Journal of social issues*, 30(1),159-165.
- Hirata, G.; Oliveira, J. B. A.; Mereb, T. M. (2019). Professores: quem são, onde trabalham, quanto ganham. *Ensaio: Avaliação e Políticas Públicas em Educação*, 27 (102), 179-203. <https://doi.org/10.1590/S0104-40362018002701888>
- Kidger, J.; Brockman, R.; Tiling, K.; Campbell, R.; Ford, T.; Araya, R.; King, M.; Gunnell, D. (2016). Teachers' wellbeing and depressive symptoms, and associate risk factors: a large cross sectional study in English secondary schools. *J Affect Disorders*; (192),76-82. <https://doi.org/10.1016/j.jad.2015.11.054>
- Koga, G. K. C.; Melanda, F. N.; dos Santos, H. G.; Sant' Anna, F. L.; González, A. D.; Mesas, A. E.; de Andrade, S. M. (2015). Fatores associados a piores níveis na escala de Burnout em professores da educação básica. *Caderno Saúde Coletiva*, 23(3), 268-275. <https://doi.org/10.1590/1414-462X201500030121>
- Lenkeit, J.; Caro, D. H. (2014). Performance status and change—measuring education system effectiveness with data from PISA 2000–2009. *Educational Research and Evaluation*, 20(2), 146-174.
- Lima, C. D. N. M. B.; Morais, A. N. (2018). Prevalência e fatores de risco do burnout nos docentes universitários. *Revista Contemporânea de Educação*, 13(27),453-471. <https://doi.org/10.5327/Z1679443520190385>
- Maslach, C.; Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of organizational behavior*, 2(2), 99-113.
- Maslach, C.; Jackson, S. E.; Leiter, M. P.; Schaufeli, W. B., Schwab, R. L. (1986). *Maslach burnout inventory* (Vol. 21, pp. 3463-3464). Palo Alto, CA: Consulting psychologists press.
- Rey, L.; Extremera, N.; Pena, M. (2016). Emotional competence relating to perceived stress and burnout in Spanish teachers: a mediator model. *PeerJ*, 4, 2087-2101. <https://doi.org/10.7717/peerj.2087>
- Silva, N. R.; Bolsoni-Silva, A. T.; Loureiro, S. R. (2018). Burnout e depressão em professores do ensino fundamental: um estudo correlacional. *Revista Brasileira de Educação*, 23, 2- 18. <https://doi.org/10.1590/S1413-24782018230048>
- Skaalvik, E. M.; Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher engagement, job satisfaction, and emotional exhaustion. *Psychological reports*, 114(1), 68-77.
- Szigeti, R.; Balázs, N.; Bikfalvi, R.; Urbán, R. (2017). Burnout and depressive symptoms in teachers: Factor structure and construct validity of the Maslach Burnout inventory-educators survey among elementary and secondary school teachers in Hungary. *Stress and Health*, 33(5), 530-539. <https://doi.org/10.1002/smi.2737>
- Tostes, M. V.; Albuquerque, G. S. C. D.; Silva, M. J. D. S.; Petterle, R. R. (2018). Sofrimento mental de professores do ensino público. *Saúde em Debate*, 42, 87-99. <https://doi.org/10.1590/0103-1104201811607>
- Wang, Y.; Ramos, A.; Wu, H.; Liu, L.; Yang, X.; Wang, J.; Wang, L. (2015). Relationship between occupational stress and burnout among Chinese teachers: a cross-sectional survey in Liaoning, China. *International archives of occupational and environmental health*, 88(5), 589-597. <https://doi.org/10.1007/s00420-014-0987-9>

Submitted on: March 16 2020

Approved on: May 23 2020

This paper was translated from Portuguese by Régis Lima.