



ORIGINAL ARTICLE

Burnout Syndrome in public school teachers in Sorocaba, São Paulo, Brazil *Síndrome de Burnout em professores do ensino público de Sorocaba, São Paulo, Brasil*

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Received on Mar 3, 2021, accepted on Sep 16, 2021, published on Dec 22, 2021

KEYWORDS

Basic education
Occupational stress
Teachers

ABSTRACT

Objective: To identify the prevalence of Burnout Syndrome (BS) in a sample of 107 elementary school teachers (cycle II and high school) in Sorocaba/SP and analyze possible associations of psychosocial and organizational factors at work with the dimensions of burnout.

Methods: Cross-sectional epidemiological study, conducted through a selection of a convenience sample, which included 107 teachers from state schools in Sorocaba using the following criteria: having entered the public teaching career for at least one year and working predominantly as a teacher, that is, not having more hours in administrative positions. Data collection was conducted in eight schools in the city, and two forms were used, the “Maslach Burnout Inventarie-Educators Survey” (MBI-ES) and a biopsychosocial form. Pearson’s chi-square test and logistic regression analysis were performed for data analysis, adopting a significance level of 5%.

Results: There was a prevalence of BS in 4.7% of teachers, with 29% of teachers showing high Emotional Exhaustion, 33.6% high Depersonalization and 18.7% low Professional Fulfillment. Positive associations were found between factors such as lack of recognition, dissatisfaction with work and situations of harassment with the dimensions of the BS.

Conclusion: The results suggest a warning sign for illness characterized by burnout in the sample of teachers studied.

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<https://doi.org/10.21876/rcshci.v11i4.1127>

How to cite this article: Souza MCL, Lucca SR. Burnout Syndrome in public school teachers in Sorocaba, São Paulo, Brazil. Rev Cienc Saude. 2021;11(4):29-36. <https://doi.org/10.21876/rcshci.v11i4.1127>

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PALAVRAS-CHAVE

Educação básica
Estresse ocupacional
Professores

RESUMO

Objetivo: Identificar a prevalência da Síndrome de *Burnout* (SB) em uma amostra de 107 professores do ensino básico (ciclo II e ensino médio) no município de Sorocaba/SP e analisar possíveis associações dos fatores psicossociais e organizacionais do trabalho com as dimensões do *burnout*.

Métodos: Estudo epidemiológico de corte transversal, realizado por meio de seleção de amostra por conveniência, que incluiu 107 professores de escolas estaduais de Sorocaba através dos seguintes critérios: ter ingressado na carreira docente pública há pelo menos um ano e estar atuando predominantemente como professor, ou seja, não ter maior carga horária em cargos administrativos. As coletas dos dados foram realizadas em oito escolas do município e foram utilizados dois formulários, o “*Maslach Burnout Inventarie- Educators Survey*” (MBI-ES) e um formulário biopsicossocial. Na análise dos dados foram realizados o teste qui-quadrado de Pearson e a análise de regressão logística, adotando-se nível de significância de 5%.

Resultados: Observou-se uma prevalência da SB em 4,7% dos professores, sendo que 29% dos docentes apresentaram alta Exaustão Emocional, 33,6% alta Despersonalização e 18,7% baixa Realização Profissional. Foram encontradas associações positivas entre fatores como falta de reconhecimento, insatisfação com o trabalho e situações de assédio com as dimensões da SB.

Conclusão: Os resultados sugerem um sinal de alerta para o adoecimento caracterizado pelo *burnout* na amostra de professores estudada.

INTRODUCTION

Teaching work is considered one of the most stressful and exhausting compared to other professions¹. In Brazil, the increase in the workload and stress of teachers has been occurring progressively over the years due to several factors, like social transformations, changes in pedagogical models, and educational reforms, and contributing to the working conditions of education professionals being increasingly difficult. Additionally, the work of teachers has frequently been devalued and little recognized by society^{2,3}.

The political reforms conducted from the 1990s onward marked the beginning of the precariousness and devaluation of teaching work in Brazil, with the increase in temporary contracts, the inadequacy or absence of career plans and salary increments, the lack of labor and social security guarantees, changes in the models of work organization and management, and the political influence of more authoritarian, bureaucratized and centralizing governments^{4,5}. Therefore, there was a reconfiguration in the public education scenario, and many stressors became part of the daily lives of teachers, such as the high demand for efficiency and productivity, high work demands, lack of autonomy, social support, recognition and teaching materials, moral harassment, poor infrastructure conditions, and excess of students per classroom⁶⁻⁸.

Such circumstances have contributed to increased stress and workload for teachers and made them more vulnerable to physical and mental illness, predisposing them to the development of mental disorders^{9,10}. Thus, of the Work-Related Mental Disorders (WRMD) that affect teachers, the most pointed out in the literature as an outcome of mental illness is the Burnout Syndrome (BS)^{11,12}.

BS is a progressive psychological syndrome in response to chronic interpersonal stressors at work^{13,14}. Besides being considered a psychosocial phenomenon, some of these stressors are related to the functions performed by workers in the institutional context¹⁵. It

consists of three interrelated dimensions: a) emotional exhaustion (EE) (characterized by the feeling of emotional depletion); b) depersonalization (DE) (occurs when the professional shows some irritability, loss of idealism, and starts to treat clients, colleagues and the organization in a distant and impersonal way); and c) low professional achievement (PA) (professional tendency to self-assess negatively, feeling dissatisfied with their professional development, experiencing a decline in the sense of competence and in their ability to interact with people), mainly affecting professionals from social service, education, and health^{13,14}.

Given the critical scenario in which public school teachers in Brazil live, specifically in the state of São Paulo, and considering the social relevance of the profession and the various factors identified as stressors in the work environment, the importance of studying these characteristics in the state's public network is highlighted. This study identified the prevalence of BS among teachers of the state public basic education system (cycle II and high school) in the municipality of Sorocaba, besides identifying the association of psychosocial and organizational factors of teaching work with the dimensions of burnout.

METHODS

This is an epidemiological, cross-sectional study conducted with teachers from the basic education network (cycle II and high school) from state schools in Sorocaba, São Paulo, between October 2019 and March 2020.

Sample Design

This study consists of a convenience sample, including 107 teachers (74 women and 33 men). The initial protocol was based on consolidating a semi-probabilistic sample by conglomerates. Initially, a survey

was conducted on the number of schools and teachers in the state education system in Sorocaba, and it was found 69 schools and 1,647 teachers in the final years of elementary (cycle II) and high school. Based on this number, the sample calculation resulted in 312 teachers.

As it is a large city with significant socioeconomic differences between regions, schools were stratified by area. For each stratum, drawings were designed among schools (conglomerates) until reaching 412 teachers (sample + 20% loss), totaling 11 schools, divided into seven regions (southwest, central, east, north, central-south, northwest, and central-north) and an average of 59 teachers per region.

The inclusion criteria were having entered the public teaching career for at least one year and working predominantly in teaching-related activities. Professionals who did not completely fill out the two applied forms (see below) were excluded.

However, in 2020, given the covid-19 pandemic and with the suspension of school activities as a restrictive interpersonal contact, the fieldwork that began in October 2019 and was expected to be completed in May 2020 had to be interrupted with 8 schools and 108 teachers, divided into three regions: east zone (52 participants), central region (50 participants) and west zone (6 participants), of which one teacher was excluded (central region), due to having joined the institution and teaching career for less than one year.

The research was approved by the Research Ethics Committee of Unicamp on September 3, 2019, and registered at Plataforma Brasil (decision nr. 3,551,647, CAAE: 1665329.1.0000.5404). Participants signed the Informed Consent Term. The study was conducted following the research ethics precepts defined by the Declaration of Helsinki and Resolution CNS/MS 466/2012.

Instruments

Data collection occurred as follows: in each school where the study was authorized, the researcher held a meeting with all elementary and secondary school teachers and briefly explained the study, inviting them to participate in the research. Then, two forms (MBI-ES and biopsychosocial form) and two copies of the ICT were handed over to each professor who agreed to participate. The researcher waited for the filling (about 15 to 20 min) and then collected the forms. The same procedure was conducted in the eight schools where it was possible to conduct the research.

1) "Maslach Burnout Inventory- Educators Survey" (MBI-ES)

Validated by Carlotto and Câmara¹⁶ for use with professors in Brazil, it consists of a form with 22 closed questions to verify the possible development of the BS. The questions use the scoring system from 1 to 5, as also adopted in their versions for use in Brazil⁵, which considers 1 for "never", 2 for "rarely", 3 for "sometimes", 4 for "often" and 5 for "always", with nine questions to identify emotional exhaustion (EE), 5 for

depersonalization (DE) and 8 for low professional achievement (PA) (inverse scale).

2) Biopsychosocial form

It consists of 40 closed questions that characterize the teacher's sociodemographic factors (gender, age, race/color, marital status, number of children, level of education) and employment (professional time, type of relationship, educational levels, infrastructure, workload dedicated to professional-related activities, suffering any harassment by the institution, management, colleagues and students, the degree of satisfaction with the content and context of work and with professional growth, recognition for work, interference in family life, and intention to retire from the institution).

Data analysis

Descriptive analysis of sociodemographic, psychosocial, and work organization variables was performed. To identify the prevalence of BS, the scores were calculated by summing the scores of each dimension, then using the distribution of quartiles (first: "low", second: "moderate", and third: "high"). Pearson's chi-square test or Fisher's exact test was used to identify possible associations between independent variables (sociodemographic characteristics, psychosocial and work organization factors) and the three dimensions of BS (dependent variables). Finally, a multinomial logistic regression analysis was performed using the forward stepwise model between the dependent and independent variables that presented the most relevant associations to identify the odds ratio of occurrence of the dimensions. The significance level adopted in all tests was 5%. All analysis was performed using the Statistical Package for Social Sciences® statistical program (SPSS Inc., Chicago, IL, USA), version 25.0.

RESULTS

Among the teachers participating in the study, there was a predominance of females (n = 74; 69.2%) and white race (n = 85; 79.4%). The mean age was 43.3 ± 10 years; 67 (62.6%) had a partner, and 68 (63.5%) had children. Concerning the educational level, 59 (55%) reported having attended a specialization course, and 13 (12%) had a postgraduate degree (masters degree).

Regarding the characteristics of work, most teachers (n = 60; 56%) joined the current educational institution more than 10 years ago, and 70 (65.4%) were hired as permanent staff/statutory (via public tender), while the others had a temporary contract (n = 28; 26.2%) or for an indefinite period (n = 9; 8.4%). It was also found that 90 teachers (84.1%) worked more than 40 hours a week, with this time being occupied by tasks related to teaching (classroom teaching, planning of activities, and administrative tasks).

Considering the criteria established by Maslach and Jackson¹³ (concomitant presence of high scores in EE and DE and low scores in PA), the prevalence of BS found was 4.7% (n = 5).

In the analysis of the distribution for each

dimension, it was observed that 31 (29%) participants had high EE, 36 (33.6%) high DE, and 20 (18.7%) low PA. When distributed according to gender, it was evident that women had a higher percentage of the worst EE scores ($n = 23$; 31.1%), while high ED was more prevalent among men ($n = 17$; 51.5 %).

Table 1 describes the associations found between organizational and psychosocial work factors and the worst levels of the BS dimensions. It was observed that having poor classroom conditions was associated with high EE and DE, having suffered harassment by the institution and leader was associated with high EE, not feeling satisfied with the content of the work was associated with high EE, and not feeling satisfied with the work context and professional growth at high EE and DE. An association was evidenced between the lack of recognition by society with high EE, and by students with

high EE and DE. The fact that work interferes with personal or family life was associated with the worst levels of EE and DE.

Regarding the biosocial characteristics of the teachers, it was observed that there was an association between being male and high DE, representing 51.5% of men ($n = 17$; $p = 0.03$). The other sociodemographic variables did not show associations with BS dimensions.

Logistic regression data are shown in Table 2. The following results were observed: being dissatisfied with professional growth increased the chances of developing high EE and DE; having poor classroom conditions increased the chances of developing high EE over low EE; being female and the noninterference of work in family life reduced the chances of developing the worst levels of DE.

Table 1 – Organizational and psychosocial factors of work that were associated with the worst levels of the three dimensions of BS for the sample of teachers in the basic education network in Sorocaba/SP, 2019/2020.

Variables	High EE		High DE		Low PA	
	n (%)	p	n (%)	p	n (%)	p
Appropriate room conditions						
No	20 (10.7)	< 0.01	17 (45.9)	0.02	5 (13.5)	0.573
Yes	11 (20.3)		19 (27.1)		15 (21.4)	
Harassment by the Institution						
No	20 (22.5)	< 0.01*	27 (30.3)	0.22*	16 (18)	0.829*
Yes	11 (61.1)		9 (50)		4 (22.2)	
Harassment by the boss						
No	24 (24.7)	0.02*	31 (32)	0.44*	19 (19.6)	0.600*
Yes	7 (70)		5 (50)		1 (10)	
Work content						
Dissatisfied	16 (50)	< 0.01*	16 (50)	0.06	6 (18.8)	0.983
Satisfied	15 (20)		20 (26.7)		14 (18.7)	
Work context						
Dissatisfied	23 (50)	< 0.01	24 (52.2)	< 0.01	8 (17.4)	0.951
Satisfied	8 (13.1)		12 (19.7)		12 (19.7)	
Professional growth						
Dissatisfied	26 (52)	< 0.01	27 (54)	< 0.01	11 (22)	0.691
Satisfied	5 (8.8)		9 (15.8)		9 (15.8)	
Feeling recognized by society						
No	31 (100)	< 0.01*	31 (37.3)	0.12	16 (19.3)	0.777*
Yes	0 (0)		5 (20.8)		4 (19.3)	
Feeling recognized by students						
No	19 (46.3)	< 0.01	19 (46.3)	0.01	11 (26.8)	0.192
Yes	12 (18.2)		17 (25.8)		9 (13.6)	
Does work interfere with family life?						
No	4 (12.5)	< 0.01*	6 (18.8)	0.01	4 (12.5)	0.342
Yes	27 (36)		30 (40)		16 (21.3)	

EE, emotional exhaustion. DE, depersonalization. PA, professional achievement. The percentages refer to the category of the respective independent variable in relation to a single level of dimensions (high EE, high DE and low RP). *Fisher's test.

Table 2 – Multinomial logistic regression data between the EE and DE dimensions (high versus low) and the independent variables referring to teachers in the basic education network in Sorocaba/SP. 2019/2020.

Emotional Exhaustion (EE)				
Variables	B	p	OR _{raw}	CI 95%
Appropriate room conditions				
No	3.13	0.01	22.79	2.08 - 249.55
Yes				
Satisfaction with professional growth				
Dissatisfied	2.22	0.02	9.20	1.26 - 67.04
Satisfied				
Depersonalization (DE)				
Variables	B	p	OR _{raw}	CI 95%
Sex				
Female	-1.66	0.02	0.19	0.05 - 0.75
Male				
Interference from work in the family				
No	-1.63	0.02	0.20	0.05 - 0.77
Yes				
Satisfaction with professional growth				
Dissatisfied	2.39	> 0.01	10.87	2.9 - 40.8
Satisfied				

EE, emotional exhaustion. DE, depersonalization. Reference variable: low EE and low DE.

DISCUSSION

The prevalence of BS among the teachers in this study was 4.7%, and about one-third of the sample had a high percentage of Emotional Exhaustion (EE) and Depersonalization (DE).

EE is the primary dimension that characterizes SB¹⁷ and is the first stage of the syndrome and the most prevalent in research involving educators¹⁸. Therefore, the high prevalence of EE can be explained because some professionals are still in the first stage of burnout, having not evolved to DE and low PA¹⁴.

The DE dimension (or distancing) is considered a negative reaction to burnout and differentiates the subject with BS from depressed professionals in general. The low PA is the last stage and may occur since workers no longer identify with the profession after experiencing so many situations of stress and disillusionment with work (lack of self-recognition). Alternatively, high levels of PA may demonstrate that this dimension is a protective factor, as although there are many work stressors in teaching practice, professionals believe in the job they have chosen due to its social relevance^{14,19,20}.

It was also observed that men had higher levels of DE, corroborating the results of other studies^{12,19,21}. Among women, the dimension with the highest percentage was EE, as also mentioned by other authors²¹⁻²³.

The fact that the literature shows a tendency for teachers to present higher levels of depersonalization related to their fellow scholars could be justified due to some gender characteristics, such as the identification

of males with more competitive professions, with expectations of success, and with less affective involvement and difficulties in dealing with situations that involve emotions, distancing themselves from people in conflict situations²⁴.

Also, some cultural and social issues contribute to a more significant physical and mental burden on women. According to Sousa and Guedes²⁵, in the gender division, the social attribution imposed or granted to women is historically and culturally based on the exploitation and submission, materialized in a discourse on the feminine naturalness for care (a function of little social value), mainly observed in capitalist societies. This discourse that reinforces the disadvantages of women to men is perverse because it reproduces society's sexist culture, as men always had the function of material production (a task considered of prestige and power in society). In contrast, besides sharing the family's financial responsibility with men, women continue to assume the domestic tasks alone, perpetuating an unequal division of sex for work, keeping them always at a disadvantage²⁶.

The discussion of gender is particularly relevant in the education area, given that in Brazil, mainly in primary education, and other countries, there is a predominance of women in the teaching career²⁷.

The lack of recognition is another critical subjective aspect that affects self-esteem and motivation for work and should be taken into account to understand burnout situations in teachers²⁸. In this research, a positive association was evidenced between the lack of recognition by society to the highest levels of EE and the lack of recognition by students having been

significantly associated with high EE and DE. It is essential to highlight that recognition is considered a factor that contributes to the motivation and satisfaction of teachers and, consequently, to their professional achievement, besides having a protective effect against illness^{19,20}.

According to Maslach and Leiter¹⁴, in the absence of recognition (social, institutional, and financial), individuals' vulnerability to burnout is high due to the feeling of devaluation of their work. In this sense, according to research data conducted in 2018 by the international educational organization The Varkey Foundation, which compared the status of valuation of teachers from around the world from the perspective of society, Brazil topped the list of countries in which they are less valued, and the profession is considered disrespected and underpaid²⁹.

Among the psychosocial factors, harassment at work (moral or sexual) is another factor evidenced as a cause of exhaustion and disillusionment with the profession, as verified in a survey with secondary school teachers in Kaunas/Lithuania. This study found that teachers who were victims of harassment at work (from superiors, co-workers, and students) were also the ones who presented psychological distress and had the worst levels of burnout dimensions observed among these teachers³⁰. In the present study, it was evident that harassment perpetrated by the institution and management was associated with the worst levels of EE.

Regarding work-family interaction, it was observed that 68.2% of the participants felt that the work harmed in some way their relationship with the family. Also, this variable has been significantly associated with the worst levels of EE and DE. Finally, it was found that most teachers in the sample (84.1%) were dedicated to working activities for more than 40 hours a week, and for a third, the workload exceeded 60 hours a week, meaning that the invasion of work into personal or family life is real. According to Silva and Fisher³¹, the invasion of work in the private lives of teachers can be material, due to work itself (planning of classes, correction of assignments and tests), and subjective (non-material), of having to take work home, and can cause psychological distress for teachers.

It appears that, in addition to the fact that excessive work has negative consequences in the personal lives of educators, the greater the perception of stress in not being able to separate or reconcile professional and personal life, the greater is the disillusionment and desire to abandon the profession³².

Regarding the infrastructure of schools, it was observed that having poor conditions in classrooms (including structure and materials) was associated with higher levels of EE and DE, as also highlighted in the study by Koga et al.². In this sense, the poor condition of classrooms and the infrastructure of schools in general, the lack of materials and places for teachers to rest, can impair health in the form of physical and mental exhaustion, besides contributing to their low self-esteem, as such conditions also reflect the low recognition and devaluation of these workers³⁰⁻³³.

As public education policies in Brazil have not provided the necessary support for a long time, nor have they provided healthy working environments for public

school teachers, the increase in stress and illness of these professionals may be a reflection of these situations, culminating in the precariousness of work teacher.

The process of precarious working conditions for teachers began with the breakdown of the democratic management model established by the Federal Constitution and evolved into autocratic management from the 1990s onward, marked by authoritarian neoliberal governments more concerned about conducting reforms based on excellence and productivity rather than promoting the well-being and good performance through strategies that regulate and encourage the work of these professionals³⁴.

In addition to the precariousness of the work itself, how teachers are hired has been weakened through legal devices that allow flexible contracts, intensification of work, and reduction of salary gains, reaching the point of being compared to the system under demand known as "uberization"⁵.

This research showed that only 65% of the teachers in the sample in public education were statutory; that is, they enjoyed stability and guaranteed rights through hiring via public examination. The others were either hired for an indefinite period or had a three-year temporary contract. After this contract ended, they were held as a "*quarentena*" or "*duzentena*" (forty or two hundred days without being able to perform the activities and being rehired after this period, but not guaranteed).

Overall, this study contributes to the discussion of factors associated with the exhaustion of education workers, whose situational diagnosis can be the starting point for intervention strategies at the collective level that seek solutions for the problems arising from the forms of management and organization of teaching work.

It is essential to highlight some limitations of this research. As this is a cross-sectional study, it was impossible to identify a causal relationship between the variables. The sample that should have been probabilistic ended up configuring a convenience sample; due to the context of the pandemic, the research had to be interrupted. Additionally, the results found in this study may not reflect the reality of the city or other regions of Brazil, in the sense that they are somehow also dissatisfied with their work, whether because of the content, the context, or the lack of perspective on growth professional, which may result in the outcome of burnout. Because the data acquisition was conducted in two different periods (end and beginning of the school year), this may have interfered with the participants' responses, as the teachers were in two different phases of the school calendar (end of classes and return of classes vacation). Finally, professors on leave due to illness were excluded from this study, and the professionals in the sample could represent the "healthy worker effect"³⁵.

CONCLUSIONS

It was observed that several factors that permeate the teaching work, such as lack of recognition,

dissatisfaction with work and professional growth, situations of harassment, poor infrastructure in classrooms, have contributed to psychological distress and development of BS in primary school teachers in

public schools in Sorocaba. Therefore, it is suggested to consider the associations highlighted among the priority actions in health promotion and preventing Burnout Syndrome in teachers.

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Conflicts of interest: No conflicts of interest declared concerning the publication of this article.

Indications about the contributions of each author:

Conception and design of the study: MCLS, SRL

Analysis and interpretation of data: MCLS

Data collection: MCLS

Writing of the manuscript: MCLS

Critical revision of the article: SRL

Final approval of the manuscript*: MCLS, SRL

Statistical analysis: MCLS

Overall responsibility: SRL

*All authors have read and approved of the final version of the article submitted to Rev Cienc Saude.

Funding information: Scholarship for studies by the Coordination for the Improvement of Higher Education Personnel - Brazil (CAPES) - Financing Code 001.