

Violence against public school teachers and burnout

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Abstract *School expansion, changes in the educational model and funding problems have profoundly changed teaching in Brazil, intensifying demands on teachers. Health problems such as burnout are common in the profession. We investigated teacher burnout and its association with occupational factors, including violence. Data were collected using in-depth interviews and two specific instruments (the Maslach Burnout Inventory and Spanish Burnout Inventory). Statistical analysis was performed using Stata, version 13.0. Ninety-three teachers referred to psychotherapy from public schools in different regions of the city of São Paulo participated in the study. Burnout was associated with 11 school setting variables, including having suffered violence in the school ($p < 0.001$), discomfort with interpersonal contact at work ($p < 0.001$) and noise ($p < 0.001$). Sixty percent of the teachers with severe burnout had suffered violence at school in the last year. Both collective and occupational issues were associated with teacher burnout. Among these, interpersonal conflict and violence, which appears as a new and common problem, adversely affect the health of these professionals.*

Keywords *Burnout, Teachers, Mental health, Workplace violence, Occupational health*

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Introduction

Despite the vital role education plays in personal and social development, the work of teachers in Brazil is undervalued and underpaid¹⁻². Since the country's redemocratization in 1988, important changes have been made to the pedagogical model and access to education has improved, in a process known as the democratization of education³. However, chronic education system funding and planning problems¹⁻² and emerging social conflicts, combined with the reformulation of teaching, have led to an intensification of demands on educators. Authors report a large number of professionals involved in teaching in Brazil, underlining the important social function performed by educators⁴⁻⁶. However, studies also highlight the occurrence of mental health problems among the teaching profession⁴⁻⁹ and the issue of violence in schools¹⁰⁻¹¹. Considering the multifactorial nature of issues involving teaching, we investigated teachers' experiences of burnout, analyzing the association between the syndrome and occupational factors, including violence.

Burnout is a work-related health problem¹²⁻¹³ and teachers and other professionals¹⁴⁻¹⁵ are considered vulnerable to this condition¹⁶⁻¹⁷. Burnout is usually associated with caregiving and human services occupations¹⁸ and specific tools have been used to measure it, such as the Maslach Burnout Inventory (MBI). The MBI measures three dimensions of the syndrome: emotional exhaustion related to the intensity of job demands; depersonalization or unfeeling towards service users' problems and detachment, which can lead to negative and dehumanizing attitudes at work; and a feeling of reduced personal accomplishment and engagement in work¹⁸. The MBI is a leading measure of burnout and has been validated in various languages¹⁹⁻²⁰. Its developers maintain that burnout can be discussed from both a clinical and social psychology perspective: in terms of the interrelations between care providers and recipients in the context of human service and caregiving occupations¹⁸. We found references to some Brazilian versions of the MBI²¹: in 1995, Carvalho²² validated the educators survey (MBI-ES), presenting four scales; however, the latest version of the original MBI-ES²³, published in 2010, has only three scales. The versions developed by Lautert²⁴ and Tamayo²⁵ in 1995 and 1997, respectively, were not based on the educators survey. In 2002, Garcia et al²⁶ developed a Brazilian version of the MBI-ES based on the original version developed in 1986. Consid-

ering the reformulations and latest version of the inventory, we opted to develop a new Brazilian version of the MBI for the purposes of this study.

Another burnout measure used in Brazil is the Brazilian version of the *Spanish Burnout Inventory (Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo - CESQT)*²⁷, consisting of four dimensions: enthusiasm towards the job, psychological exhaustion related to emotional demands at work, indolence, and guilt. The SBI assesses both the cognitive and physical aspects of burnout²⁸.

This study sought to identify both quantitatively and qualitatively the sources of burnout among teachers and broaden understanding of the factors that contribute to the development of this work-related health problem. Despite the large number of teachers working in schools in São Paulo (approximately 50.000)²⁹, we found few studies on the mental health of teachers in this city; notably those conducted by Macaia *et al.*³⁰, Giannini *et al.*³¹ and Paparelli³². Considering the lack of research on the association between burnout among teachers and occupational factors, we investigated the occurrence of this syndrome among educators working in public schools in different regions of the city of São Paulo.

Methods

The study protocol was approved by the research ethics committees at the University of São Paulo's Faculty of Public Health and the Municipal Civil Servants' Hospital (HSPM), which are registered in the National Research Ethics Committee (CO-NEP) (CAAE: 12684613.5.0000.5421).

All teachers referred to psychotherapy seeking mental health services at the HSPM between May 2013 and May 2014 were invited to participate in the study. Ninety-three of the 101 invited teachers participated in the study. Two opted not to participate, four did not meet the inclusion criteria, and two were ineligible because they did not have their glasses. The participants worked in the city's four main regions. The number of participants working in each region was proportional to the overall number of teachers in each region.

Inclusion criteria: teachers who were working or on leave of absence; readapted teachers working or on leave of absence (functional readaptation due to medical reasons supported by a medical certificate. Readapted teachers are assigned

to other functions outside the classroom); and medically retired teachers.

Exclusion criteria: retired teachers; staff in other education-related functions (school agent, principals, education coordinators) and teachers who had been receiving psychotherapy for more than eight weeks.

Interview: after participants gave their consent to participate in the study, in-depth interviews were conducted in which the researcher administered questionnaires and a topic guide designed to identify, characterize and detail the reasons why the teachers sought psychotherapy. The participants were invited to fill in the questionnaires themselves during the interview.

Survey of occupational issues: we developed a questionnaire consisting of 90 questions about the work environment and organization (attached).

Burnout assessment

To broaden data collection and make the investigation of the syndrome more consistent, we used two inventories specifically designed to assess burnout among educators. This also allowed us to compare the results of each instrument:

Maslach Burnout Inventory - Educators Survey (MBI)²³, translated into Portuguese with the authorization of Mind Garden, Inc. (Translation Contract Number TA-346);

Spanish Burnout Inventory (SBI), validated for use with teachers in Brazil²⁷.

Data analysis

The psychological instruments were analyzed using the respective instructions for each instrument. The results of the MBI and SBI are expressed in categories, allowing comparisons with the school setting variables, which were also categorized.

Associations between the occupational variables and results of the MBI and SBI scales were determined using the chi-squared test and Fisher's exact test. The analyses were performed using Stata, version 13.0.

The interviews and guide allowed participants to express their feelings and talk about events that were not included in the questionnaires. Facts and perceptions linked to their experience as teachers were welcomed and contributed to the understanding of work dynamics and their impact on the participants.

Results

The number of teachers in the study sample in each of the city's four major regions was proportional to the overall number of teachers in each region. The São Paulo City Department of Education's website²⁹ states that the city's schools are managed by 13 regional education offices: five in the East region; four in the South region; three in the North region; and one in the West region. According to the information provided by the Department of Education³³, the distribution of the sample across the four regions was proportionally similar to the overall distribution of teachers in the city in 2014. The two distributions are shown in Figures 1 and 2.

The large majority of the 93 participants (90.3%) were women. At the time of the assessment, 64.5% of the sample were working, 14.0% were readapted, 18.3% were on medical leave, and 3.2% were on work accident leave. The mean age of the participants was 46.4 years (ranging between 28.6 and 69.1 years; standard deviation 9.1 years), 7.5% of the sample were aged over 60 years, and only 3.2% were aged under 29 years.

The mean length of time working as a teacher was 21.1 years (ranging between 3.1 and 41.6 years; standard deviation 8.3 years). A third of the women (33.3%) had exceeded the number of years of service required to retire, which at the time of data collection was 25 years. The results of the MBI Personal Accomplishment scale show that prevalence of burnout was lower in women who had completed more than 25 years of service than in those with less time of service ($p = 0.036$). This association was repeated in the overall sample, with the results of the MBI Emotional Exhaustion scale ($p = 0.001$) and SBI Psychological Exhaustion scale ($p = 0.007$) showing that prevalence of burnout was lower among teachers who had more than 22.5 years of service (50.5% of the sample) than in those with less time of service.

With regard to education, 3.2% of the sample had only completed high school (did not have a degree) and 42.0% reported having postgraduate qualifications. However, more than three grammar and spelling errors were found in the answers to the open-ended questions in 17.2% of the questionnaires. One-third of the participants (33.33%) provided written answers containing mistakes and frequent lack of punctuation and accents. Furthermore, 34.41% of the respondents expressed their ideas and feelings in writing in a limited manner.

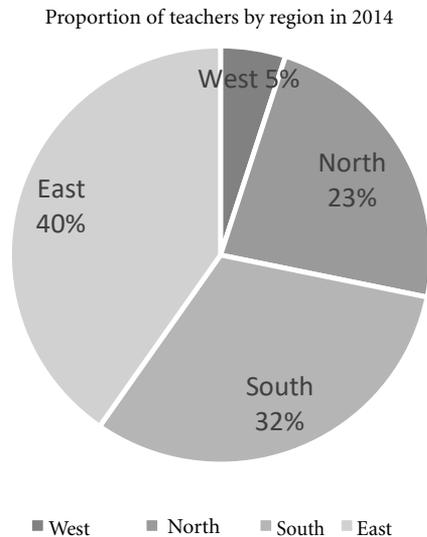


Figure 1. Overall proportion of teachers in São Paulo by region in 2014.

Source: São Paulo City Department of Education.

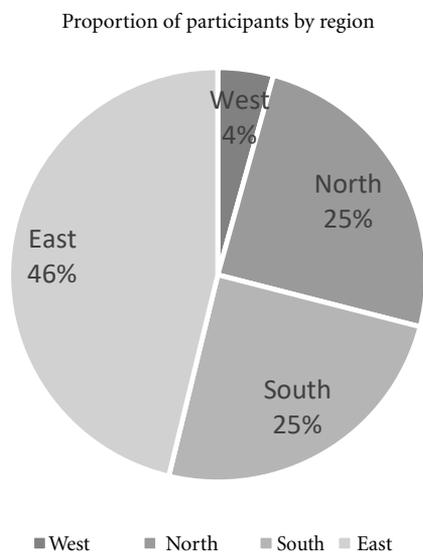


Figura 2. Distribuição percentual por região de trabalho dos participantes no estudo, em 2013-2014.

Source: Authors.

We examined the associations between the results of the MBI and SBI to determine the level of agreement between the two measures. The most significant p-values were found for the scales measuring similar aspects of burnout: Emotional Exhaustion/MBI and Psychological Exhaustion/SBI ($p < 0.001$); Depersonalization/MBI and Indolence/SBI ($p < 0.001$); Depersonalization/MBI and Enthusiasm towards the Job/SBI ($p < 0.001$); Personal Accomplishment/MBI and Enthusiasm towards the Job/SBI ($p < 0.001$); and Personal Accomplishment/MBI and Indolence/SBI ($p < 0.001$).

Based on the rules of statistical standardization, the MBI and the SBI define the intensity of the syndrome as follows: mild, moderate or severe. In the present study, the results of the MBI and SBI showed that 35.48% and 40.86%, and 52.69% and 32.26% of the sample, respectively, had moderate and severe burnout. Four people (4.3%) did not experience the syndrome, while 26.9% of the participants showed severe burnout according to both the measures.

In addition to the association with length of service referred to above, the findings showed an association between burnout and having suffered violence in the school, issues relating to interpersonal contact at work, and aspects related to physical structure and work organization. Table 1 shows the number and percentage of individuals who had burnout according to the MBI and the p-values of the associations with occupational variables. Table 2 shows the number and percentage of individuals who had burnout according to the SBI and the p-values of the associations with the school setting variables.

Discomfort in contact with students, discomfort in contact with students' parents, having experienced physical or verbal aggression in the school during the twelve months prior to the study, feeling unfulfilled professionally, feeling lack of support from teaching colleagues, and feeling lack of support from school directors/coordinators were associated with burnout.

Teacher discomfort with classroom noise, teacher discomfort with school noise, regarding classroom acoustics as unacceptable most of the time, perception of lack of participation in institutional decision-making, regarding bureaucracy as excessive, regarding the number of students per class as high, and regarding yourself as overloaded with activities were associated with burnout.

Slightly over half the participants (50.5%) reported having experienced physical or verbal ag-

gression in the school during the twelve months prior to the study. In addition, the findings show that there was an association between having experienced aggression and the presence of burnout in both measures: MBI ($p = 0.001$) and SBI ($p = 0.001$) (Tables 1 and 2). Violence in schools was also related to the severity of the syndrome: 60% of the 25 participants who showed severe burnout in both inventories reported having suffered violence in the school in the 12 months prior to the study.

Discussion

The aim of this study was to determine the association between occupational factors and burnout among teachers referred to psychotherapy. We found significant p -values for 14 of the 90 variables tested – p -value is defined as the probability of obtaining a result equal to or more extreme than what was actually observed, based on an assumed or known probability curve. The following variables stood out in the associations found between school setting and presence of burnout: having experienced aggression in the school, problems involving interpersonal contacts, and structural issues such as noise. On the other hand, we found that prevalence of burnout was lower in teachers with a greater number of years of service in education than in those with less years of service. We expected that spending more years in the profession would have led to an intensification of the symptoms of the syn-

drome; however, this was not the case. To the contrary, both measures showed that prevalence of burnout was lower in teachers who had more than 22.5 years of service (slightly over half of the sample) than those with less time in the profession. In addition, 33.3% of women were eligible to retire, yet continued to work and showed lower prevalence of strain in relation to personal accomplishment than those with less time in the profession. These findings may reflect the resilience of more experienced professionals and the fact that some individuals are able to withstand adversity in their careers, while others leave the profession due to the health risks they are exposed to at work. Occupational epidemiologic studies show that the fact that certain individuals resist occupational stressors is explained by the phenomenon known as survival bias. The term survivor in this sense indicates a special type of worker, meaning that for each survivor many other workers leave their job³⁴⁻³⁵.

There are certainly “survivors” among the 33.3% of the women in the sample who continue working after 25 years in the education profession and showed lower prevalence of burnout related to Personal Accomplishment than their colleagues with less years of service. These women include teachers who have already retired in one job and continue to work to complete the time of service required to retire in a second teaching job, suggesting that they are better off, at least financially, than other colleagues. In addition, it is possible that the fact that longer serving teachers have priority over workplace transfers con-

Table 1. Associations between work variables and burnout measured by the MBI.

	Emotional Burnout			Depersonalization			Personal Accomplishment		
	n	%	p	n	%	p	n	%	p
Discomfort with students	68	73.12	<0.001	57	61.29	0.012	65	69.89	0.007
Discomfort with parents	60	54.52	0.003	63	67.74	<0.001	63	67.74	0.017
Experienced aggression in the school	60	64.52	0.001	59	63.44	0.015			
Feeling unfulfilled professionally	48	51.61	0.004	61	65.59	0.020	57	61.29	0.001
Lack of support from colleagues	63	67.74	0.039	50	53.76	0.013			
Classroom noise	81	87.10	<0.001						
School noise	81	87.10	<0.001						
Excessive bureaucracy	69	74.19	0.002						
Do not participate in decision-making	72	77.42	0.003						
Classroom acoustics unacceptable	62	66.67	0.006				59	63.44	0.033
Feeling overloaded	73	78.49	0.006						
High number of students	78	83.87	0.055						

Source: Authors.

Table 2. Associations between work variables and burnout measured by the SBI.

	Enthusiasm towards the Job			Psychological Exhaustion			Indolence			Guilt		
	n	%	p	n	%	p	n	%	p	n	%	p
Discomfort with students	54	58.06	0.001	69	74.19	<0.001	52	55.91	0.001			
Discomfort with parents	56	60.22	0.004	59	63.44	0.033	56	60.22	0.001			
Experienced aggression in the school				59	63.44	0.001						
Feeling unfulfilled professionally	68	73.12	<0.001				66	70.97	0.001			
Lack of support from colleagues	51	54.84	0.027							56	60.22	0.003
Lack of support from school managers				69	74.19	0.002						
Classroom noise				74	79.57	0.001	31	33.33	0.018			
School noise				74	79.57	0.003	31	33.33	0.022			
Do not participate in decision-making	48	51.61	0.005	71	76.34	0.004	44	47.31	0.023			
Classroom acoustics unacceptable	54	58.06	0.004				50	53.76	0.027			
Excessive bureaucracy				70	75.27	0.002						
Feeling overloaded				72	77.42	0.035						
High number of students				77	82.80	0.061						

Source: Authors.

tributes to lower levels of strain among teachers with more than 22.5 years of teaching experience. This criterion means these teachers are able to choose schools where they feel more fulfilled or less exhausted. On the other hand, higher levels of burnout among teachers with less time in the profession raises issues related to leaving teaching and the interest of young people in becoming teachers.

Work organization and burnout

Although our findings do not show any association between salary and burnout, this issue should not be underestimated. Teaching in Brazil has become increasingly undervalued². A recent OCDE report³⁶ shows that the average salary of teachers at the primary and secondary level is below the average of member countries considering the purchasing power parity index. Low salaries reduce the appeal of a career in teaching, negatively affecting professional activity and the qualifications offered in the training of educators. Our results are consistent with the findings of a longitudinal analysis of teaching in Spain carried out by Esteve³⁷, who reported that “malaise” among teachers is triggered by factors such as

the devaluation of teaching by society, constant work demands, violence in school and indiscipline. Esteve suggests that social changes have affected the role played by teachers, reducing social consensus on the function of schools and teachers in society. He argues that teacher training should be tailored to the new challenges of educational practice, overcome the idealization of the teacher’s role and be oriented towards the real possibilities of work in education³⁷. Aranda³⁸ addresses school violence and discusses support for school managers and teachers. According to these authors^{37,38}, adequate training could protect these professionals from burnout. Considering the grammar errors and difficulties the teachers of our sample had expressing their ideas in writing, we are lead to question the quality of training offered to the teachers.

Violence, interpersonal conflict and burnout

Like Maia *et al.*³⁹, we found structural work issues, problems involving interpersonal contact, and teachers who experienced violence in the school. Our findings show an important association between school violence and burnout. The

results of the MBI and SBI showed that 40.86% and 32.26% of the participants, respectively, had severe burnout. In addition, 60% of the participants who had severe burnout according to both tests (26.9% of the sample), reported having suffered violence in the school in the 12 months prior to the study. It is important to note that the probability that the association between having experienced aggression in the school and having burnout is due to chance is very low ($p = 0.001$, for both measures). These results are consistent with the findings of Wilson *et al.*⁴⁰, who reported significant associations between violence against Canadian teachers and physical and emotional effects. It seems that violence in schools is a social phenomenon and has been the object of studies and literature reviews addressing various contexts^{10-11, 39-40}.

Minayo and Souza⁴¹ organized a review of the literature in Brazil on violence and its impact on health services. The authors analyzed various types of studies and methodological approaches and discussed the multi-causality of violence and the dialectics of cause and effect. We understand that, as with other types of violence, it is important to address the multi-causality of violence in schools, as the determinants of this violence are not absolute. On the other hand, despite uncertainty about the causes of school violence, the association found between having suffered violence and having burnout appears to show the need to consider violence as an occupational hazard. The high prevalence of burnout among the study participants and strong associations between burnout and occupational factors, including violence, highlight the risk of developing burnout in the reference population. We observed that, although violence was associated with the problems that led to referral for psychotherapy, the participants did not seek therapy specifically due to the violence they had suffered, which appears to have become normalized in school settings. However, they complained about the countless conflicts and social problems that have become part of everyday life at school. It is known that educational settings are shared by individuals from different social classes, beliefs and ethnic groups. This plurality can promote coexistence and mutual respect as long as conflicts are mediated, and it is hoped that educators conduct this mediation. In other words, it is expected that teachers handle conflicts from an educational perspective. Therefore, when teachers are the target of violence, this aggression may be viewed by these professionals as a sign of failure. Thus, in the absence of in-

stitutional support, primarily for mediation of conflicts, teachers tend to become discouraged, often leading to burnout, unless they find ways of coping with their problems. Institutional programs and training focusing on conflict mediation in school settings could support teachers to this end.

Despite the resilience demonstrated by teachers, classroom conflict appears to be reflective of society's ambiguity in relation to education. According to Azanha, cited by Carvalho³, the São Paulo State Department of Education estimated that less than 20% of school-age children in the state would reach the fifth year of primary school by 1968. In other words, in the country's richest and most developed state, less than 20% of school-age children would go beyond the fourth year of primary school. Until recently, the restricted number of places in schools, grade retention and dropout led to social exclusion and the maintenance of social inequalities in Brazil's education system⁴²⁻⁴³. According to data presented by Ferraro⁴², in 2010, despite significant advances stemming from the constitutional precept of universalization of primary education, 3.2 million children and adolescents aged between four and 17 years were excluded from school in Brazil. In addition to the excluded children, seven million students⁴² repeated the school year (grade retention) in 2010. The shift from exclusion to inclusion led to a qualitative transformation of the entire education system, forcing professionals to adapt. Furthermore, the profession seems to carry both the expectations of success of the new model and responsibility for its failure. In addition to the criticism it receives, Brazil's education system appears to be underfunded, considering that according to the OCDE³⁶ spending per student and teachers' salaries are well below the average.

Conclusions

Brazil's educational model has undergone changes as a result of wide-ranging social and economic processes. Some participants mentioned changes in the pedagogical model, highlighting its advantages and shortcomings. Teaching is undergoing a process of transition accompanied by a large expansion of staff and work demands, suffering a real pay drop since the period prior to redemocratization. Teacher training and the appeal of the profession appear to have been adversely affected. In addition to the uncertainties of this

transition, the findings of this study show that occupational factors are associated with burnout.

Considering that the symptoms experienced by the participants are related to occupational factors, actions designed to address the sources of burnout should be implemented in addition to medical or psychological treatment with the aim of creating a healthy working environment, thus improving the appeal of a career in teaching. The following occupational factors were associated with burnout: having experienced aggression in the school, interpersonal conflict in the school and structural problems (such as classroom and school noise). Understanding the relationship between burnout and occupational factors can help avoid the “individualization” of collective problems, preventing processes triggered in the external environment (and capable of affecting a large number of professionals) from being mistakenly considered solely as “personal issues”, restricted to the individual.

Although burnout was first described in the 1970s and studies on this topic have been conducted in various countries, the symptoms experienced by teachers in the city of São Paulo appear to have received scant attention from researchers and health and education departments. Thus, burnout among teachers apparently constitutes a field that requires further study. Actions that can prevent or reduce burnout among teachers include improvements in training, pay and support for resolving conflicts in the workplace. Programs designed to encourage support from school managers and teaching colleagues could also help teachers handle interpersonal issues related to burnout, while actions directed at structural factors and work organization can help improve teacher health, reducing the need to seek treatment and request medical leave of absence, thus benefitting teachers, students and the school.

Collaborations

Design and analysis: EC Simões and MRA Cardoso; execution: EC Simões; writing: EC Simões and general review: MRA Cardoso.

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Article submitted 02/08/2020

Approved 07/01/2021

Final version submitted 09/01/2021

Chief editors: Romeu Gomes, Antônio Augusto Moura da Silva