Do Organizational Support and Occupational Stressors Influence Burnout in Teachers?

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ABSTRACT

This study evaluated the relationship between perceived work support, occupational stressors and burnout in a sample of 102 teachers, testing a model based on structural equations. The Labor Support Scale (ESUL), the Workplace Stress Vulnerability Scale (EVENT) and the Brazilian Burnout Scale (EBB) were applied. From the results, the EBB correlated positively and moderately with the EVENT and negatively and with a weak magnitude with the ESUL. The EVENT and ESUL presented a negative and weak correlation. Using the path analysis model, stressors at work mediated the relationship between work support and burnout. The social interaction dimension (ESUL) predicted the climate and organizational functioning (EVENT), which in turn directly impacted emotional exhaustion/professional frustration and depersonalization/detachment (EBB). The study demonstrates the importance of investigating these constructs in the school context, aiming to support the planning of interventions and the reduction of stressors and burnout indicators.

Keywords: teachers; organizational support; occupational stressors; burnout.

RESUMO – O suporte Laboral e os Estressores Ocupacionais Influenciam o *Burnout* em Professores?

Esta pesquisa avaliou a relação entre percepção de suporte laboral, estressores ocupacionais e *burnout* em uma amostra de 102 professores, testando um modelo baseado em equações estruturais. A Escala de Suporte Laboral (ESUL), Escala de Vulnerabilidade ao Estresse no Trabalho (EVENT) e Escala Brasileira de *Burnout* (EBB) foram aplicadas. Dos resultados, a EBB correlacionou positiva e moderadamente com EVENT, e negativamente e de magnitude fraca com ESUL. EVENT e ESUL correlacionaram negativamente e com magnitude fraca. Pelo modelo de *path analysis*, estressores no trabalho mediaram a relação entre suporte laboral e *burnout*. A dimensão interação social (ESUL) prediz o clima e funcionamento organizacional (EVENT), que, por sua vez, impacta diretamente na exaustão emocional/frustração profissional e despersonalização/distanciamento (EBB). O estudo demonstra a importância de se investigar os referidos construtos no contexto escolar, visando tanto o planejamento de intervenções quanto a diminuição dos estressores e indicadores de *burnout*.

Palavras-chave: professores; suporte organizacional; estressores ocupacionais; *burnout*.

RESUMEN – ¿El Apoyo Laboral y los Factores de Estrés Ocupacionales Influyen en el *Burnout* de los Docentes?

Esta investigación evaluó la relación entre el apoyo laboral percibido, los estresores ocupacionales y el *burnout* en una muestra de 102 profesores, probando un modelo basado en ecuaciones estructurales. Se aplicaron la Escala de Apoyo Laboral (ESUL), la Escala de Vulnerabilidad al Estrés Laboral (EVENT) y la Escala Brasileña de *Burnout* (EBB). A partir de los resultados, EBB se correlacionó positiva y moderadamente con EVENT y negativamente y de magnitud débil con ESUL. EVENT y ESUL se correlacionaron negativamente y con magnitud débil. A través del modelo *path analysis*, los factores de estrés en el trabajo mediaron la relación entre el apoyo laboral y el *burnout*. La dimensión de interacción social (ESUL) predice el clima y el funcionamiento organizacional (EVENT), que a su vez, impacta directamente en el agotamiento emocional/frustración profesional y en la despersonalización/distanciamiento (EBB). El estudio demuestra la importancia de investigar estos constructos en el contexto escolar, indicando tanto a la planificación de intervenciones como a la reducción de factores estresantes e indicios de *burnout*.

Palabras clave: docentes; apoyo organizacional; factores de estrés ocupacional; *burnout*.

The teaching category has been the focus of various studies in Brazil and in the international context over recent decades, either considering positive aspects, such as the relevant and innovative practices developed by these professionals, or because of the illness that is increasingly present in this population. Research shows that a large number of teachers become ill due to their work (Carlotto, & Câmara, 2019).

There are two hypotheses that are most frequently reported and that could generally explain the illness process. The first concerns the gap between the training and work reality, that is, the training process

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in undergraduate courses is more focused on theoretical and technical issues, with very little focus on the strategies to face the adversities to be found by these teachers after graduating (Cunha, 2019; Oliveira et al., 2017; Silva, & Oliveira, 2019). The second hypothesis, on the other hand, focuses on the feeling of responsibility and duty of the teachers, through which these professionals, in order to develop an adequate practice, try to respond satisfactorily to all the pedagogical and administrative demands of the context in which they work, such as the various obligations that are prescribed in the Guidelines and Basis of National Education Law, the National Education Plan, and the High School Education Reform, among others. As it is not possible to fulfill all requirements successfully, they begin to have feelings related to low self-efficacy and self-esteem at work (Brasil, 1996; 2014; 2017; Piolli et al., 2015).

Several variables can affect the physical and mental health of teachers. The increasing lack of recognition by a large part of society in relation to the work developed by the teaching category in Brazil is clear. In addition to this devaluation, several other variables can be cited, such as the lack of solid and convergent public policies in the area of education (which require adaptations in the performance of these professionals), the tasks related to teaching classes and administrative duties, lack of resources and structure for the adequate performance of activities, low salaries, lack of interest and indiscipline on the part of students, as well as difficulties in relation to dialogue with other co-workers, public managers, parents and guardians (Birolim et al., 2019; Dalcin, & Carlotto, 2018; Richards et al., 2018; Xu, & Yang, 2021).

Recent estimates, largely due to the aforementioned variables, show that up to 50% of newly graduated teachers give up their career within the first three years of teaching (Bottiania et al., 2019; Herman et al., 2018), not only due to the various stressors, but also due to psychopathological issues that arise from these, such as depression and burnout. This study aimed to investigate organizational support, occupational stressors and burnout indicators in teachers, with a view to comprehending their relationships and influences.

Organizational support (also documented in the literature as work support) is defined and evaluated through the workers' beliefs and expectations about the recognition and remuneration that their workplace provides from their service. In other words, it is associated with how much the organization cares, values and looks after its workers' well-being (Eisenberger et al., 1986; Eisenberger et al., 1990; Eisenberger et al., 1997). If there is a positive assessment of this organizational support, there is a tendency for it to have a protective function when faced with challenges and stressful events at work. On the contrary, a low perception of support can make these teachers more likely to become ill (Birolim et al., 2019; Jawahar et al., 2007).

There are several variables that can lead teachers to experience stress as a result of work (occupational stress) and, consequently, illness, leading to physical, psychological and financial impairments. Stress can be measured through occupational stressors, which refer to a set of events that cause discomfort for workers. Occupational stressors are inherent in all work contexts, with lack of recognition, low wages, difficulties in interpersonal relationships with peers, parents, students and education system managers, being just a few examples (Capelo, 2017; Carlotto, & Câmara, 2019).

The inability, or low repertoire of skills, to cope with these stressful situations, can cause, in the medium or long term, occupational stress, as well as result in other pathologies, such as burnout. Investigations conducted with samples of teachers tend to show a certain consensus that occupational stress has a significant prediction for burnout indicators (Pereira Neto et al., 2019; Xu, & Yang, 2021). Burnout is a psychopathology associated with work that has serious consequences for the health of workers. From the prolonged exposure to occupational stressors and the occurrence of occupational stress, workers no longer perceive themselves to have resources to face these situations, reaching a state of emotional exhaustion (Baptista et al., 2019; Cardoso et al., 2017; Dalcin, & Carlotto, 2018).

The three-dimensional model of Maslach and collaborators (Maslach, & Jackson, 1981; Maslach, & Leiter, 1997; Maslach et al., 2001) is widely used for the investigation of burnout indicators. According to the model, from the workers' subjective experiences, they realize that their personal coping resources are exhausted, starting to present increasingly negative responses in relation to work. The first characteristic (dimension) of burnout is emotional exhaustion, which concerns the feeling of lack of energy and resources to resolve events considered stressful at work. The second, depersonalization, appears as a response to emotional exhaustion, because as workers no longer perceive themselves as having resources to face situations, they will probably start to treat them indifferently and will distance themselves from other people with whom they need to interact. In the third dimension, low professional achievement, the worker generally evaluates their professional performance in a negative way and feels incapable of performing their activities, with low self-esteem and self-efficacy.

Empirical studies with samples of teachers, from the different educational levels, have demonstrated the importance of analyzing organizational support in the face of occupational stressors and burnout, that is, the three constructs of interest in this investigation. Regarding associations between the constructs in teachers, the results of correlations analyses between organizational support and occupational stressors indicate a negative relationship and low magnitudes (up to 0.39), just as the low

perception of organizational support tends to predict more vulnerability to occupational stressors (Avanzi et al., 2015; Birolim et al., 2019; Xu, & Yang, 2021). Accordingly, greater perceptions of work support equate to stressful events having less impact on teachers, showing the importance of an adequate support network with regards to other professionals working in the institution, as well as managers.

In studies with teachers, the associations between organizational support and burnout are also generally negative and have weak magnitudes, with low perception of support being a variable with a certain prediction for burnout (Baptista et al., 2019; Uzun, 2018; Xu, & Yang, 2021). This information also shows that the more teachers perceive their work environments as welcoming places, the less likely they are to experience emotional exhaustion, feelings of cynicism and inefficiency.

Studies that have investigated occupational stressors and burnout in teachers are more numerous, both in the national and international literature and, in general, show a consensus that the correlations are positive and of moderate magnitude (between 0.40 and 0.69). Occupational stressors have been shown to be predictive variables for burnout, especially for the emotional exhaustion dimension (Capelo, 2017; Steinhardt et al., 2011).

Few studies have investigated the work support, occupational stressors and burnout constructs in samples of teachers. Analyses are even scarcer of possible mediations (between organizational support, stressors and burnout) and moderation of the occupational stressors between organizational support and the burnout outcome. From the publications retrieved from the literature, the results are not consensual in this sample group. Although studies have found results that support the indication of

occupational stressors as a mediation variable for organizational support and burnout (Russell et al., 1987; Xu et al., 2013; Xu, & Yang, 2021), they also showed divergent results regarding the mediating role of work support for the outcomes of stressors and burnout. Data has been found to support this hypothesis (Russell et al., 1987; Xu et al., 2013; Xu, & Yang, 2021), however, in a more recent study by Xu and Yang (2021) the same information was not replicated in the investigated sample.

Considering that this class of worker is increasingly ill in Brazil (Silva, & Oliveira, 2019), it is also relevant to investigate the possible variables that could contribute to preventive actions in relation to occupational stressors and the development of burnout indicators. The present study aimed to evaluate the relationship between the perception of organizational support, occupational stressors and burnout in teachers, more specifically testing a model, based on structural equations, considering the assumption that, in teachers, occupational stressors are mediators between the perception of organizational support and symptoms of Burnout.

Method

Participants

The sample consisted of 102 teachers, with a mean age of 43.8 ($SD=10$) years, 35 of whom were fundamental education teachers – from kindergarten to high school (34.7%) and the rest higher education teachers (65.3%). The majority of the total sample was female (74.3%), married (73.3%), from public schools (63.3%) of a city in the state of São Paulo approximately 400 km from the state capitol. Of the total, 44.3% had more than one job and the mean hours worked per day was 8.4 ($SD=2$), with the mean time in the position being 10 years ($SD=9.3$).

Table 1
Characterization of the Participants According to the Level of Professional Performance

Variables		Fundamental Education (n=35)	Higher Education (n=67)	Total (n=102)
Sex	Male	8.6%	34.8%	25.7%
	Female	91.4%	65.2%	74.3%
Age	Mean (SD)	41.3 (9.9)	45.1 (9.9)	43.8 (10.0)
Marital status	Single	17.1%	18.2%	17.8%
	Married	71.4%	74.2%	73.3%
	Separated	11.4%	7.6%	8.9%
Type of organization	Public	71.4%	63.6%	66.3%
	Private	28.6%	36.4%	33.7%
Time in the position	Up to 10 years	61.9%	81.3%	75.4%
	Over 10 years	38.1%	18.7%	24.6%
More than one job	Yes	48.6%	42.4%	44.6%
	No	51.4%	57.6%	55.4%
Hours worked/day	Mean (SD)	7.9 (2.1)	8.7 (2.0)	8.4 (2.0)

Legend. SD=Standard Deviation

When presenting the participants separated based on the level of education in which they worked (Table 1), the distributions between the two groups were close in almost all variables, such as sex, age, marital status, type of organization, whether they had more than one job and hours worked per day. The only variable in which there was a more marked differentiation between the groups was time in the position, demonstrating that the teachers that worked in fundamental education had been in the position for longer than those that worked in higher education.

Instruments

Labor Support Scale (*Escala de Percepção do Suporte Laboral* – ESUL) (Baptista et al., 2016): constructed, validated and standardized in Brazil, evaluating information regarding the perception of support that the individual perceives in their workplace. It is answered on a four-point Likert-type scale and its 21 items are grouped into two factors (Interaction and Benefits), with higher scores indicating greater perception of the organization's support for its employees. Several studies have investigated its psychometric properties and standards and it is recognized by the Federal Psychology Council (FPC) as a psychological test.

Workplace Stress Vulnerability Scale (*Escala de Vulnerabilidade ao Estresse no Trabalho* – EVENT) (Sisto et al., 2007): this is an FPC recognized psychological test that assesses vulnerability to stress at work. It consists of 40 items, answered using a three-point Likert-type scale, divided into three factors: Climate and Organizational Functioning; Pressure at Work; and Infrastructure and Routine. Higher scores indicate greater vulnerability to occupational stressors. The instrument manual presents information regarding the psychometric parameters (evidence of validity, reliability and standardization).

Brazilian Burnout Scale (*Escala Brasileira de Burnout* – EBB) (Cardoso, & Baptista, 2017): assesses burnout indicators based on the model proposed by Maslach, containing 28 items, distributed in two theoretical dimensions: Emotional exhaustion/Professional frustration and Depersonalization/Detachment. The higher the EBB score reported by the worker, the greater the burnout indicators. The instrument has evidence of validity based on the internal structure and reliability through internal consistency. The EBB does not yet present standardization studies since it is still under construction.

Procedures

Initially, the project was submitted to and approved by the Research Ethics Committee (authorization number 2.768.106). After approval, data were collected online via Google-forms. For this, teachers were contacted by email (from the electronic addresses made available on the websites of educational institutions) and also through groups of teachers on social media. After agreeing to participate in the study (through the consent form), the instruments were applied (ESUL, EVENT and EBB), with an estimated average time to respond to the instruments of 30 minutes.

Data analysis

The results were analyzed using the Jamovi 0.9 (The Jamovi Project, 2019) and AMOS (Arbuckle, 2014) software, initially generating descriptive data and an analysis of the correlation between the factors and totals of the scales. Linear regression models were tested with the totals of each dependent variable (ESUL, EVENT and EBB) together with the independent variables such as socio-demographic and work data (sex, marital status, age, type of institution, occupation, time in the position, whether more than one job was held, hours worked per day, and length of time at the institution). A Path Analysis was also carried out, based on the premise of the mediation model of how much the organizational support predicts stressful events, which predict burnout with the dimensions of each of the scales, in addition to a model with the totals of the EVENT scale mediating the ESUL and the EBB outcome.

The initially proposed Path Analysis model of was composed of two exogenous variables, that is, the two factors of the ESUL (interaction and benefits) and five endogenous variables. Accordingly, the two factors of the ESUL would explain the three factors of the EVENT (Climate and Function; Pressure at Work; and Infrastructure and Routine) (Marôco, 2010). These three EVENT variables would explain the two EBB variables (Emotional Exhaustion/Professional Frustration and Depersonalization/Distancing). The analyses were estimated using the Maximum Likelihood Robust method, adopting a significance level $<.05$.

Results

The first analysis to be presented (Table 2) concerns the participants' descriptive data based on the instruments applied. It should be noted that of the three scales applied, two (ESUL and EVENT) have standardization studies. The EBB data were analyzed in quartiles from the possible scores (minimum and maximum) of the scale.

Based on the descriptive data from the ESUL, in both groups analyzed, most perceived organizational support based on interactions between workers and supervisors (ESULF1) as satisfactory, with ratings between high-medium and high. Considering benefits (ESULF2), the fundamental education teachers presented higher classification percentages than those of higher education.

Table 2
Mean Score, Standard Deviation and Teacher Classification in the Scales

	Fundamental Education (*n*=35)					Higher Education (*n*=67)				
	M(SD)	L	LM	HM	H	*M(SD)*	L	LM	HM	H
ESULF1	25.1 (8.6)	3.0	15.2	30.3	51.5	23.8 (9.4)	6.1	22.7	21.2	50.0
ESULF2	9.9 (4.2)	6.1	30.3	33.3	30.3	8.7 (4.7)	13.8	36.9	30.8	18.5
	M(SD)	Q1	Q2	Q3	Q4	*M(SD)*	Q1	Q2	Q3	Q4
EVENTF1	14.1 (7.0)	34.3	22.9	22.9	20.0	13.6 (7.1)	34.8	27.3	19.7	18.2
EVENTF2	14.6 (5.2)	17.1	40.0	17.1	25.7	14.3 (5.3)	25.8	30.3	27.3	16.7
EVENTF3	7.41 (4.9)	20.6	35.3	44.1	-	7.1 (4.1)	21.2	30.3	48.5	-
	M(SD)	Q1	Q2	Q3	Q4	*M(SD)*	Q1	Q2	Q3	Q4
EBBF1	25.1 (9.4)	5.7	68.6	22.9	2.9	24.2 (12.8)	27.3	39.4	25.8	7.6
EBBF2	4.9 (3.0)	71.4	28.6	-	-	4.6 (3.7)	66.7	30.3	1.5	1.5

Legend. ESULF1=Interaction; ESULF2=Benefits; EVENTF1=Climate and Organizational Functioning; EVENTF2=Pressure at Work; EVENTEF3=Infrastructure and Routine; EBBF1=Emotional exhaustion/Professional Frustration; EBBF2=Depersonalization/ Detachment; *M*=Mean; *SD*=Standard deviation; L=Classification – Low; LB=Classification – Low-Medium; HM=Classification – High-Medium; H=Classification – High; Q1=1st quartile; Q2=2nd quartile; Q3=3rd quartile; Q4=4th quartile

Regarding occupational stressors, climate and organizational functioning (EVENTF1), both groups showed the highest concentrations of teachers occurring in the first two normative quartiles, indicating that they are not very vulnerable to this set of stressors. In EVENTF2 (stressors associated with pressures of the work environment), in the fundamental education teachers the classifications were concentrated in the second and fourth quartiles, whereas the higher education teachers mostly gave intermediate scores (second and third quartiles). Of the set of stressors related to infrastructure and work routine (EVENTF3), no score reached the fourth quartile (considered a high indicator), with the majority of the two groups in the intermediate quartiles.

Regarding the EBB scale scores, considering emotional exhaustion and professional frustration (EBBF1), the fundamental education teachers had a concentration of responses between the second and third quartiles (intermediate score), whereas in the higher education teachers the distribution of classifications was more heterogeneous among the quartiles. From depersonalization and detachment (EBBF2), the scores of the fundamental education teachers were not classified in the highest quartiles (third and fourth), indicating that the feeling of depersonalization and detachment was low for these professionals. Although the concentration of classifications was also in the lowest quartiles for the higher education teachers, for some these, feelings were already starting to appear more frequently (since the scores were classified in the higher quartiles).

Table 3
Pearson Correlations Between the ESUL, EVENT and EBB Scales (Totals and Dimensions)

|	EBBF1	EBBF2	EVENTF1	EVENTF2	EVENTF3	ESULF1	ESULF2	EBBTOT	EVENTTOT	ESULTOT
EBBF1	1									
EBBF2	.591**	1								
EVENTF1	.601**	.439**	1							
EVENTF2	.414**	.262**	.571**	1						
EVENTF3	.418**	.312**	.717**	.629**	1					
ESULF1	-.256*	-.233*	-.348**	-,058	-,153	1				
ESULF2	-.218*	-,096	-,188	,028	-,091	.450**	1			
EBBTOT	.980**	.740**	.609**	.410**	.426**	-.271**	-.206*	1		
EVENTTOT	.567**	.402**	.908**	.824**	.875**	-.237*	-,109	.572**	1	
ESULTOT	-.280**	-.215*	-.338**	-,033	-,152	.937**	.733**	-.286**	-.223*	1

Legend. ESULF1=Interaction; ESULF2=Benefits; ESULTOT=ESUL total score; EVENTF1=Climate and Organizational Functioning; EVENTF2=Pressure at Work; EVENTEF3=Infrastructure and Routine; EVENTTOT=EVENT total score; EBBF1=Emotional exhaustion/ Professional Frustration; EBBF2=epersonalization/Distancing; EBBTOT=EBB total score. Note. **p*<.050; ***p*<.010

As can be seen in Table 3, the majority of the correlations were significant. Concerning the totals of the scales, the EBB was positively and moderately correlated with the EVENT and negatively with the ESUL, with weak magnitude. The EVENT and ESUL were negatively correlated with each other, with weak magnitude. The correlations between the dimensions of each of the scales, for the most part, followed the same logic, all of them with the expected meaning, that is, the correlations between the dimensions of the EBB and the EVENT were weak to moderate; the EBB with the ESUL were weak (almost all significant) and, finally, in the EVENT with the ESUL there was only one significant and weak correlation.

In relation to the regressions, no significant relationships were found for any of the three total dependent variables (ESUL, EVENT and EBB) with the independent variables included in the model, with no prediction being possible. The path analysis was initially performed with the dimensions of each scale and, finally, a mediation model with the EVENT between the ESUL and the Burnout outcome.

Figure 1
Explanatory Model via Path Analysis between the ESUL, EVENT and EBB
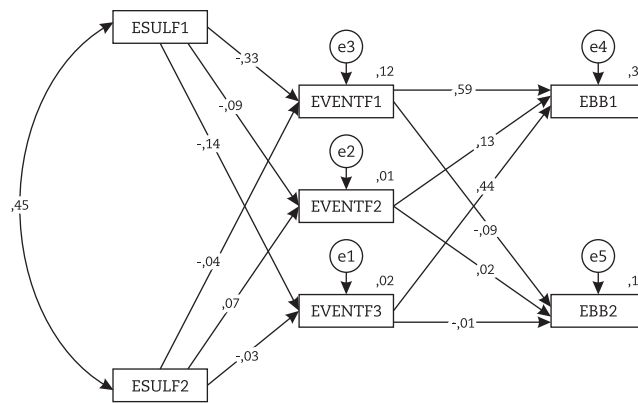
The path analysis model indicated three statistically significant betas, which are described below: ESUL1-EVENT1 ($\beta=-.33$; $p=.002$); EVENT1-EBB1 ($\beta=.59$; $p<.001$); EVENT1-EBB2 ($\beta=.44$; $p<.001$). Accordingly, the model explained 37% of the EBB1 and 19% of the EBB2. In Figure 2, the results of the totals of the scales are analyzed, initially with the ESUL explaining the EBB, and subsequently, with the insertion of the mediating variable, that is, the EVENT.

Figure 2
Mediation of the EVENT between the ESUL and the EBB
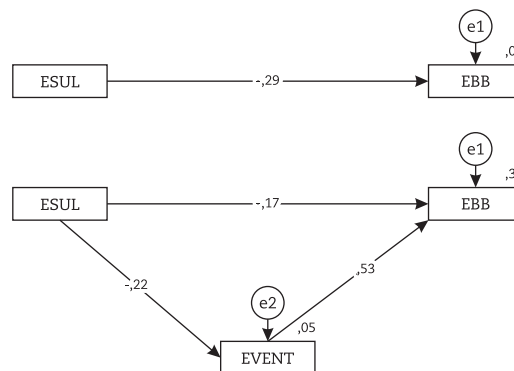
Finally, in the direct relationship between the ESUL and the EBB, a β of -0.29 (*p*=.003) was obtained. In the mediation model, for this same relationship, β decreased to -.17 (*p*=.047), also demonstrating significant relationships between the ESUL and the EVENT (β of -.22; *p*=.025), with the strongest relationship between the EVENT and the EBB (β=.53; *p*<.001).

Discussion

Studies on mental health in teachers are increasingly frequent in the scientific literature. In addition to the various occupational stressors inherent in the career, teachers often do not find adequate support in their work spaces for coping and resolving the events that can cause stress. In the medium and long term, these situations can lead to complications, such as burnout (Carlotto, & Câmara, 2019; Richards et al., 2018). Therefore, the present study investigated three constructs considered relevant in the health-disease process in teachers, namely, the perception of organizational support, occupational stressors and burnout indicators.

Regarding organizational support, the majority reported having support in terms of interactions between workers and supervisors, as well as benefits. In general, in the institutions where the sample teachers worked they could rely on other professionals with whom they had satisfactory social and work relationships. There were also instrumental benefits (bonuses, health and dental plans, etc.) that the organizations offered the teachers (as well as their families) that were considered adequate (Baptista et al., 2016). This perception should be taken into account considering the region where the collection took place, that is, a city far from the state capital, which probably has specificities in the relationships between people.

The results in the EVENT are also associated, in general, with the low vulnerability of occupational stressors perceived by teachers. Based on Sisto et al. (2007), even though there were stressors related to the factors of climate and organizational functioning (such as inadequate physical environment to perform the work, as well as personal and professional difficulties with other teachers and superiors) and conditions associated with the organization's infrastructure and routine (such as the need to increase working hours due to illness or absence of other teachers, and the perception of low cooperation in the work group), it seems that the teachers had coping strategies for these situations.

The second factor is related to the pressures in the work environment, in which there were higher concentrations of fundamental education teachers with classifications within the second to fourth quartiles. The verification of this group of teachers that were classified with high scores is important, as situations including the accumulation of work, perception of great responsibility

in the daily work, deadlines for carrying out activities, and the fast pace of the work, among other aspects, can be considered stressors, and this group of teachers were not finding strategies to resolve this situation. In addition, infrastructure and routine also grouped the largest number of teachers in the more central quartiles, with no scores in the highest quartile, which may mean greater discontent with this variable. This is in agreement with Marques (2009), who stated that infrastructure and utilization of the public schools is still low in Brazil.

The data regarding burnout also showed that the concentrations of indicators were also low. Even with the presence of some occupational stressors, the teachers were enthusiastic (with energy to face adversity), with the perception that they were able to perform their functions properly and with affective proximity with the other co-workers, students and parents of the students (Maslach, & Jackson, 1981; Maslach, & Leiter, 1997).

Although higher scores were expected both in perception of occupational stressors and in burnout, given the working conditions that teachers in the Brazilian context are generally submitted to (Aranda et al., 2020; Oliveira et al., 2017; Silva, & Oliveira, 2019), these low burnout indicators were also found in other investigations with teachers of early childhood education (Capelo, 2017), elementary education (Borba et al., 2015), high school education (Souza et al., 2016) and higher education (Silva, & Oliveira, 2019). Diehl and Carlotto (2020), in a study with a sample of 1,284 teachers of different education levels, highlighted that occupational stressors and burnout indicators must be analyzed in a contextualized way, as each institution and education level may have specific conditions that may or may not favor the development of burnout.

The correlations between work support and the other constructs analyzed were negative, concerning both the total scores of the scales and the dimensions. Therefore, a greater perception of support provided by the organization, mainly through social interactions with the other workers and supervisors, and the benefits offered by the organization tend to be associated with lower scores in relation to vulnerability to occupational stressors, especially with regard to feelings of emotional exhaustion, detachment and professional frustration due to the work climate, pressure and characteristics associated with infrastructure and routine, and indicators of burnout. Data similar to those found in the present study have also been documented in the literature (Baptista et al., 2019; Birolim et al., 2019; Silva, & Oliveira, 2019; Uzun, 2018).

The results indicated a positive relationship between occupational stressors and burnout, considering both the totals of the scales and their factors. This information was also expected, as the two constructs are documented in the literature as almost sequential (insofar as the failure to resolve occupational stressors can lead to psychic illness), with the emergence of feelings linked

initially to emotional exhaustion (Dalcin, & Carlotto, 2018; Maslach et al., 2001). Furthermore, previously published correlational studies also indicated positive and moderate associations between occupational stressors and burnout (Bottiania et al., 2019; Silva & Oliveira, 2019). Therefore, it is possible to reflect on the causal relationship between occupational stressors and burnout, as verified in the present study and in others (both theoretically and empirically).

In the path analysis data of the present study, some significant relationships between the dimensions of the scales were found, for example, between the interaction dimension (ESULF1) and the climate and organizational functioning dimension (EVENTF1). This means that a low or non-existent affective relationship with colleagues and the organization, as well as precarious levels of information impact on the stressors of the physical environment, causing unpreparedness, inadequate relationships with management, lack of growth perspective, little recognition and appreciation, and few bonuses. This information has already been widely discussed (Eisenberger et al., 1986; Eisenberger et al., 1997), i.e., there are several stressors present in the organizational context and when there is a positive evaluation of work support there is a tendency for this to have a protective function. Furthermore, a low perception of support (not feeling supported by co-workers and institutions) can make teachers more likely to fall ill, making it even more difficult to cope with and resolve events that are considered stressful.

Also, through the path analysis, it was possible to infer that these last stressful variables (EVENTF1) will also have an impact on the symptoms (both factors) of burnout, that is, on emotional exhaustion, depersonalization and low professional achievement. Theoretically, the three-dimensional burnout assessment model, developed by Maslach (Maslach, & Jackson, 1981; Maslach, & Leiter, 1997; Maslach et al., 2001), on which the construction of the EBB instrument was based, suggests that burnout is a psychopathology associated with work resulting from prolonged exposure to occupational stressors, as the worker no longer perceives themself with resources to face this situations, initially experiencing emotional exhaustion and subsequently the other factors. Therefore, it can be said that the mediation results found corroborate the data documented by other investigations, in both the meaning and the magnitudes (Baptista et al., 2019; Silva, & Oliveira, 2019; Steinhardt et al., 2011).

For example, Russell et al. (1987) found associations of small magnitudes between social support of public school principals and all dimensions of Burnout, using regression. Xu and Yang (2021), in a study with 351 Chinese teachers, found that stress had an effect, via organizational support, on burnout and did not find a moderating effect of organizational support between organizational support and burnout, in addition to the direct effect of work stress only on the ineffectiveness

dimension of burnout ($\beta=.30$). Finally, it was found that, despite the small effect, there was a mediation of stressful events between work support and burnout, when the totals of the scales were considered. The mediation/moderation function of occupational stressors between work support and burnout in teachers does not have consensus and robust scientific evidence, as few studies have been published with this type of analysis (Russell et al., 1987; Xu et al., 2013).

The evaluation of relevant variables, as well as organizational psychopathologies, is part of the comprehension of the complex phenomena that occur in jobs such as teaching. Our results demonstrate a simple association between dimensions of organizational support, stress and burnout, however, the structural equation analysis highlighted that the organizational climate and functioning mediates the organizational interactions with the symptoms of burnout. More specifically, stressful events have an important influence on the development of burnout.

Although the results found were satisfactory, it is considered that the sample size was a limitation of this study. Accordingly, it is important that future investigations on these themes increase the sample size, as well as include participants from other regions of the country, since regional differences could directly influence the work of teachers. It is also suggested that further studies be carried out with other constructs, such as job satisfaction, in order to verify possible interactions with burnout, occupational stressors and work support.

Authors´ contribution

We declare that all authors participated in the preparation of the manuscript. Specifically, the authors Hugo Ferrari Cardoso and Makilim Nunes Baptista participated in the initial writing of the study – conceptualization, investigation, visualization, data analysis, final writing of the work – review and editing.

Availability of data and materials

We will not make the database or materials available, as this is data from an evolving psychological scale (EBB). In addition, the other instruments used will not be available since they are psychological tests (ESUL and EVENT).

Conflict of interests

The authors declare that there are no conflicts of interest.

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