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School work context and symptoms of minor psychiatric disorders among municipal school teachers

Contexto de trabalho escolar e sintomas de distúrbios psíquicos menores entre professores da rede municipal

Contexto laboral escolar y síntomas de trastornos psíquicos menores entre docentes de la red municipal

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ABSTRACT

Objective: To analyze the association between the work context — work organization, working conditions, and socioprofessional relationships — and symptoms of minor psychiatric disorders among basic education teachers.

Method: A cross-sectional correlational study conducted with 357 teachers from 77 municipal schools in Porto Alegre, Rio Grande do Sul, Brazil. Data were collected between November and December 2024 using an online questionnaire containing sociodemographic

and occupational information, the Work Context Assessment Scale, and the Self-Reporting Questionnaire-20. Poisson regression with robust variance was used, adopting a significance level of p≤0.05 (CAAE No. 80888224.6.3001.5338).
Results: The prevalence of symptoms of minor psychiatric disorders was 68.3%. Better assessments of working conditions (PR=0.89; 95%CI: 0.85–0.95) and work organization (PR=0.89; 95%CI: 0.84–0.95) were associated with a lower prevalence of symptoms. A higher frequency of symptoms was observed among women, teachers with poorer sleep quality, and those exposed to verbal violence and workplace harassment. A history of sick leave due to psychological causes was also associated with a higher prevalence of symptoms.
Conclusion: A high prevalence of symptoms indicative of minor psychiatric disorders was observed among municipal schoolteachers. These symptoms were associated with the dimensions of work organization and working conditions, poorer sleep quality, and exposure to violence. The findings highlight the importance of actions aimed at promoting mental health, improving work organization and working conditions, and strengthening occupational health surveillance, with potential contributions to nursing practice in the prevention of work-related psychological distress.
Descriptors: School Teachers; Working Conditions; Mental Health; Occupational Health.

RESUMO

Objetivo: analisar a associação entre o contexto de trabalho — organização do trabalho, condições laborais e relações socioprofissionais — e sintomas de distúrbios psíquicos menores em professores da educação básica.
Método: estudo transversal correlacional realizado com 357 professores de 77 escolas municipais de Porto Alegre, Rio Grande do Sul, Brasil. A coleta de dados ocorreu entre novembro e dezembro de 2024 através de questionário virtual, contendo informações sociodemográficas e laborais, a Escala de Avaliação do Contexto de Trabalho e o *Self-Reporting Questionnaire-20*. Utilizou-se regressão de Poisson com variância robusta, considerando p≤0,05 (CAAE nº 80888224.6.3001.5338).
Resultados: a prevalência de sintomas de distúrbios psíquicos menores foi de 68,3%. Melhores avaliações das condições de trabalho (RP=0,89;IC95%:0,85-0,95) e da organização do trabalho (RP=0,89;IC95%:0,84-0,95) estiveram associadas à menor prevalência de sintomas. Maior frequência de sintomas foi observada entre mulheres, professores com pior qualidade do sono, expostos à violência verbal e assédio moral. Histórico de afastamento por causas psicológicas esteve associado à maior prevalência de sintomas.
Conclusão: observou-se elevada prevalência de sintomas indicativos de distúrbios psíquicos menores entre professores da rede municipal, associados às dimensões de organização do trabalho e condições de trabalho, pior qualidade do sono e exposição à violência. Os resultados evidenciam a importância de ações voltadas à promoção da saúde mental, à melhoria da organização e das condições de trabalho e ao fortalecimento da vigilância em saúde do trabalhador, com potencial contribuição para a atuação da enfermagem na prevenção do sofrimento psíquico relacionado ao trabalho.
Descritores: Professores Escolares; Condições de Trabalho; Saúde Mental; Saúde Ocupacional.

RESUMEN

Objetivo: Analizar la asociación entre el contexto de trabajo —organización del trabajo, condiciones de trabajo y relaciones socioprofesionales— y los síntomas de trastornos mentales comunes en docentes de educación básica.
Método: Estudio transversal correlacional realizado con 357 docentes de 77 escuelas municipales de Porto Alegre, Rio Grande do Sul, Brasil. La recolección de datos se llevó a cabo entre noviembre y diciembre de 2024 mediante un cuestionario en línea que incluyó información sociodemográfica y laboral, la Escala de Evaluación del Contexto de Trabajo y el *Self-Reporting Questionnaire-20*. Se utilizó regresión de Poisson con varianza robusta, considerando un nivel de significación de p≤0,05 (CAAE n.º 80888224.6.3001.5338).
Resultados: La prevalencia de síntomas de trastornos mentales comunes fue del 68,3%. Mejores evaluaciones de las condiciones de trabajo (RP=0,89; IC95%: 0,85–0,95) y de la organización del trabajo (RP=0,89; IC95%: 0,84–0,95) se asociaron con una menor prevalencia de síntomas. Se observó una mayor frecuencia de síntomas entre las mujeres, los docentes con peor calidad del sueño y aquellos expuestos a violencia verbal y acoso moral. Los antecedentes de licencia laboral por causas psicológicas también se asociaron con una mayor prevalencia de síntomas.
Conclusión: Se observó una elevada prevalencia de síntomas indicativos de trastornos psíquicos menores entre los docentes de la red municipal. Estos síntomas se asociaron con las dimensiones de organización del trabajo y condiciones de trabajo, peor calidad del sueño y exposición a la violencia. Los resultados ponen de manifiesto la importancia de acciones dirigidas a la promoción de la salud mental, la mejora de la organización y de las condiciones de trabajo y el fortalecimiento de la vigilancia de la salud de los trabajadores, con potencial contribución de la Enfermería en la prevención del sufrimiento psíquico relacionado con el trabajo.
Descriptores: Maestros; Condiciones de Trabajo; Salud Mental; Salud Laboral.

INTRODUCTION

The mental illness of teachers has been recognized as an important public health and occupational health problem due to its high frequency and the individual, institutional, and social repercussions associated with it. Beyond compromising teachers' quality of life and well-being, psychological distress is associated with increased absenteeism, presenteeism, temporary and permanent work disabilities, early retirement, and greater demand for health services, producing significant impacts on both educational and healthcare systems[1].

The relevance of this topic stems from the essential role played by teachers in the education of children and adolescents and in fostering the social, cultural, and economic development of societies. Despite the strategic importance of teaching, challenges related to working conditions and professional recognition have historically received insufficient attention in Brazilian public policies[1].

Structural limitations within educational institutions, insufficient material resources, high work intensity, and the increasing complexity of professional demands persist, factors that may compromise teachers' physical and mental health[2].

Promoting teachers' mental health extends beyond the educational field and should constitute a priority for occupational health policies, occupational health surveillance, and interdisciplinary practice, including nursing, which plays a strategic role in the early identification of risk factors, the development of preventive actions, and the promotion of healthy work environments[1]

The concept of the work context can be grounded in the perspective of work psychodynamics, which views the work environment through three interrelated dimensions: work organization, working conditions, and socioprofessional relationships. Work organization involves the division of tasks, pace, control, and work demands. Working conditions encompass the physical, structural, and material aspects required to perform activities. Socioprofessional relationships involve the modes of interaction established among workers, supervisors, and institutions. These dimensions directly influence workers' health and illness processes, particularly in occupations characterized by high emotional and relational demands[3].

Unlike other professional categories, teaching involves relational and emotional demands associated not only with formal instruction but also with conflict mediation, the behavioral management of children and adolescents, frequent interaction with families, and responsibility for educational outcomes. Activities performed outside the classroom, such as lesson planning, grading assessments, and preparing teaching materials, often extend beyond formal working hours, contributing to work intensification and the overlap between personal and professional life[2,4].

Studies conducted in different countries have demonstrated a high prevalence of psychological distress among teachers, manifested by symptoms of anxiety, depression, occupational stress, and emotional exhaustion. In Latin America, studies have identified substantial prevalences of anxiety and depressive symptoms among educators, associated with work overload, limited institutional support, and the emotional demands of teaching[5,6]. Similar results have been observed in Europe and North America, where symptoms of anxiety and depression range from 38% to 41%, often associated with excessive workload, pressure to achieve results, and disciplinary issues in the school environment[7]. Although these outcomes are not directly equivalent to the minor

psychiatric disorders screened by the SRQ-20, they all point to a significant burden of mental distress in this occupational group.

In Brazil, this scenario has been exacerbated by the expansion of professional demands and the difficulty of establishing boundaries between work and private life. A recent review found that 76% of teachers reported that work-related activities extend beyond the school setting, occupying periods intended for rest, family life, and leisure[4].

In addition to work intensification, the teaching work context frequently involves feelings of professional devaluation, limited institutional support, strained interpersonal relationships, and episodes of violence. Studies report that more than half of teachers have experienced or witnessed some form of violence in the school setting[8,9]. These factors have been associated with negative mental health outcomes.

This set of manifestations, including persistent fatigue, irritability, insomnia, difficulty concentrating, somatic complaints, and emotional exhaustion, is frequently described in the literature as minor psychiatric disorders (MPD). MPD comprise a set of nonspecific symptoms of psychological distress screened by instruments such as the SRQ-20. The presence of these symptoms does not establish a clinical diagnosis but identifies individuals who are more likely to have mental disorders requiring professional assessment[10,11].

The literature shows high prevalences of MPD among teachers, higher than those observed in other professional categories. The prevalence of MPD ranges from 49.5% to 75% among basic education teachers, indicating that up to three-quarters of this population experience negative symptoms resulting from chronic psychological distress[4,12]. Teachers' mental health issues directly affect teaching and learning processes, the quality of classroom interactions, and students' academic progress[2,4]. Although studies have described the high prevalence of psychological distress among teachers[4,10,12], investigations analyzing the specific contribution of the dimensions of the work context — work organization, working conditions, and socioprofessional relationships — to the occurrence of symptoms of minor psychiatric disorders remain limited, particularly among teachers in Brazil's municipal public school system.

Understanding the association between work context components and symptoms indicative of MPD may contribute to the identification of potentially modifiable occupational factors, supporting the planning of institutional interventions, public policies, and mental health promotion strategies in the school setting.

Beyond their potential to guide education administrators, these findings are relevant to nursing in the fields of occupational health, occupational nursing, and occupational healthcare, by providing evidence that may support occupational health surveillance, early screening for psychological distress, the planning of preventive interventions, and the follow-up of teachers in vulnerable situations.

The multifactorial nature of teachers' mental health issues also reinforces the need for interdisciplinary actions involving education, health, and public administration professionals, fostering the development of healthier work environments and the implementation of integrated prevention strategies and health promotion strategies.

Given this context, the present study seeks to answer the following research question: Is there an association between the assessment of socioprofessional relationships, working conditions, and work organization and the presence of MPD among early childhood and elementary school teachers in the municipal school system?

The study aimed to analyze the association between the assessment of the work context — work organization, working conditions, and socioprofessional relationships — and symptoms indicative of MPD among early childhood and elementary school teachers in the municipal school system?

METHOD

Study Design

This is a quantitative study with a cross-sectional, correlational approach. The study follows the guidelines of the STrengthening the Reporting of OBservational studies in Epidemiology.

Context

In Porto Alegre, there are 77 schools offering early childhood education and elementary education (I and II). Early childhood education, the first stage of basic education, aims to promote the comprehensive development of children up to 5 years of age in their physical, psychological, intellectual, and social aspects, complementing the actions of families and the community. Elementary education lasts nine years and is divided into two stages: Elementary School I (Grades 1-5) and Elementary School II (Grades 6-9)[13]. Educators in Elementary School I, are responsible not only for literacy instruction, but also responsible for developing knowledge and concepts at the beginning

of formal education. Educators in Elementary School II focus on deepening subject-specific knowledge, fostering autonomy, and preparing students for high school. Although a degree in pedagogy is not a mandatory requirement for teaching in Elementary School II, teachers with this background are still present at this educational level.

Participants

The study population consisted of teachers working in early childhood education and Elementary School I and II in the municipal school system of Porto Alegre, Rio Grande do Sul, Brazil (n=2,718). Eligibility criteria included holding a university degree in Pedagogy — considering that pedagogues work across the three educational levels — being over 18 years of age, having worked in the municipal school system for at least 12 months, and having been appointed through a public exam. Due to the use of a convenience sample based on a single data collection period, there were no participant losses or withdrawals from the study.

Variables

The primary outcome was the presence of symptoms indicative of minor psychiatric disorders, defined as a score ≥7 on the SRQ-20 scale, in relation to each dimension assessed by the WCAS - socioprofessional relationships, working conditions, and work organization[3]. The SRQ-20 cutoff score was defined according to the recommendation of the authors of the Brazilian version updated in 2008[11]. The independent variables investigated included sociodemographic and occupational characteristics (sex, age, marital status, number of children, years of education, educational level and field of study, length of service in the municipal school system, concurrent employment, weekly working hours, and school neighborhood); health conditions (comorbidities, diagnosis of psychological disorders, use of licit and illicit drugs, daily hours of sleep, need for sick leave, use of controlled medications, and psychological care); and workplace violence. Factors related to the work context (work organization, working conditions, and socioprofessional relationships) were also assessed, as were sleep-related variables, including sleep quality and feeling rested upon waking.

Data Sources

Data collection was conducted exclusively online using Google Forms® between November and December 2024. The access link was provided by the Municipal Department of Education following approval by the relevant ethics committees; researchers did not have access to the teachers' contact details. Over a one-month period, four invitations were sent to all teachers registered on the department's email list. The invitations contained information about the study and a link to the Informed Consent Form (ICF), which participants were required to accept before accessing the questionnaire. Completion was voluntary and based on the participant's decision.

No sampling or randomization of schools was performed. Instead, all eligible teachers in the municipal school system registered with the Municipal Department of Education were invited to participate.

Considering a population of 2,718 individuals who received an invitation to participate in the study, a total of 10,872 invitations were sent to the professionals' registered email addresses over one month. Duplicate responses were prevented by requiring the use of an institutional email address to complete the questionnaire. A total of 353 complete questionnaires were received. Four questionnaires contained missing responses. These incomplete questionnaires were included in the sample because there were no missing responses in the WCAS or SRQ-20 instruments, only in the sociodemographic characterization section. Variables with missing responses are indicated in Table 1. The final questionnaire response rate was 13.1%.

Data Measurement

The data collection instrument consisted of sociodemographic and occupational data, the Work Context Assessment Scale (WCAS), and the Self-Reporting Questionnaire (SRQ-20). The sociodemographic and occupational data instrument included the characterization of the individuals comprising the sample, including: sex; age; marital status; number of children; years of education; educational level and field of study; years of service in the municipal education system; concurrent employment; weekly working hours; neighborhood where the school was located; comorbidities; use of licit and illicit drugs; daily hours of sleep; need for sick leave; use of controlled medications; psychological counseling; and workplace violence.

To assess the work context, the WCAS was administered. This scale consists of three factors: work organization, working conditions, and socioprofessional relationships. Although the WCAS was originally part of the Work Inventory and Disease Risk (*Inventário de Trabalho e Risco de Adoecimento* - ITRA), it has its own factorial structure

and psychometric properties and is frequently used independently in studies on the psychosocial work context and occupational health. It was developed and validated by Mendes and Ferreira (2007). The scale consists of 26 items: ten assessing work organization (α=0.848); eight assessing socioprofessional relationships (α=0.853); and eight assessing working conditions (α=0.908). In the version of the scale used in this study, the scores were reversed (higher score = better assessment), with a corresponding reorganization of the classification of the mean scores for the three factors. The classifications and mean scores used were: (1) satisfactory — mean score greater than or equal 3.7; (2) critical — mean score between 2.3 and 3.7; and (3) severe — mean score below 2.3[3].

The SRQ-20, used to screen for symptoms indicative of MPD, consists of 20 dichotomous questions with "yes" or "no" responses concerning the presence of symptoms related to psychological distress. Each positive response received one point, resulting in a total score ranging from 0 to 20. A cutoff point of ≥7 was adopted to define the outcome, with participants scoring seven or higher considered to have symptoms indicative of MPD, according to the recommendation of the instrument's validation study in the Brazilian population[11].

The SRQ-20 is a screening instrument and does not establish a clinical diagnosis. Therefore, in this study, participants with a score ≥7 were considered to have symptoms indicative of MPD.

The instrument was validated for the Brazilian population and tested in a predominantly female population from Rio Grande do Sul, showing a sensitivity of 86.33% and specificity of 89.31% at the cutoff point ≥7 for screening for symptoms indicative of MPD. The discriminative power of the SRQ-20 was 0.91. Cronbach's alpha coefficient was 0.86[11].

Study Size

The sample size calculation was based on the expected proportion of the MPD outcome, resulting in a sample of 335 participants to estimate the proportion of the outcome. An absolute precision of 10% was defined considering the exploratory nature of the study, the finite population under investigation, and the operational feasibility of data collection[14]. Considering an additional 10% to account for potential losses and refusals, the required sample size was 369. The calculation (using the Wald method) assumed a 95%

confidence level and an expected MPD prevalence of 32%, based on estimates reported in recent studies[4,6].

Statistical Methods

The data were compiled in Google Sheets® spreadsheets and analyzed using the Statistical Package for the Social Sciences® (SPSS), version 18. Numerical variables were described using measures of central tendency (mean and median) and dispersion (standard deviation and interquartile ranges), according to their normal or non-parametric distribution, as assessed by the Kolmogorov-Smirnov test. Categorical variables were presented as absolute and relative frequencies. For comparisons between groups, the chi-square test was used for categorical variables and Student's t-test or the Mann-Whitney test, according to the data distribution.

To assess the association between the independent variables and the outcome, a generalized linear Poisson model with robust variance was used. This model was chosen because it allows the estimation of prevalence ratios in cross-sectional studies with frequent outcomes, avoiding overestimation of measures of association. Variable selection for the multivariable model considered statistical significance in the bivariate analysis, as well as theoretical plausibility based on the literature, an approach recommended for controlling confounding in observational studies[15].

The variables "sleep quality," "educational level," and "violence" were regrouped for inclusion in the multivariable model. "Sleep quality" and "educational level" were converted into dichotomous variables for statistical analysis. The former was converted due to differences in group sizes, whereas the latter due to redundancy in the analysis of a population for which completion of higher education was an inclusion criterion. Variables related to violence - physical violence, verbal violence, and workplace harassment - were grouped for a dichotomous analysis regarding "experiencing any type of violence".

The variable "hours of sleep," although significant, was not included in the multivariable model because it showed a strong association with the variable "rested upon waking" and was therefore considered redundant.

The variables anxiety and depression were based on self-reported prior diagnoses, obtained through a direct question in the questionnaire. These variables were used to characterize the sample and for bivariate analyses.

Ethical aspects and bias

Data collection was conducted through an online form, with individualized access upon acceptance of the ICF, disseminated exclusively by the Municipal Department of Education, without participants' contact details. No formal withdrawals were recorded. Questionnaires that were not completed by participants were not submitted due to the Google Forms® system.

The study has limitations related to the use of self-reported instruments and is therefore subject to recall and social desirability bias.

Exclusive online data collection and voluntary participation may have contributed to selection and participation biases, particularly due to the possible overrepresentation of teachers experiencing greater psychological distress or having greater interest in the topic.

All ethical aspects were observed in compliance with Resolution No. 466/2012 of the National Health Council and the General Data Protection Law, as well as guidelines from the National Research Ethics Commission regarding online form-based data collection. The project was approved by the Research Ethics Committee of the *Universidade Federal do Rio Grande do Sul* and by the Ethics Committee of the Porto Alegre Municipal Health Department and is registered under the Certificate of Presentation for Ethical Appreciation (CAAE) No. 80888224.6.3001.5338.

RESULTS

The sample consisted of 357 teachers, predominantly women (84.1%), White (77.4%), with a median age of 45 years. A high frequency of poorer perceived sleep quality, self-reported diagnoses of anxiety and depression, and sick leave in the previous 12 months was observed. Exposure to verbal violence and workplace harassment in the school environment was also high.

Table 1 presents the associations between sociodemographic characteristics, health conditions, occupational aspects, and the presence of symptoms indicative of MPD.

Table 1 - Associations between sociodemographic and occupational data and the presence of minor psychiatric disorders using the chi-square and Mann-Whitney tests (n=357)

	n(%)	**Symptoms indicative of MPD (SRQ-20 ≥7)**		**p**
		No n (%)	Yes n (%)	
Sex				
Female	301 (84.1)	83(27.7)	217(72.3)	<0.001
Male	56 (15.9)	30(52.6)	27(47.4)	

Skin color				
White	277 (77.4)	90(32.6)	186(67.4)	
Black	30 (8.4)	9(30.0)	21(70.0)	0.580
Brown	50 (14)	13(26.0	37(74.0)	
Age	45 (36-50)	45.5(39-50)	45(36-49)	0.975
Number of children	1 (0-2)	1(0-2)	1(0-2)	0.600
Marital status (n=355)				
Single	104 (29.1)	36(35.0)	67(65.0)	0.467
Married	210 (58.7)	66(31.4)	144(68.6)	
Divorced	41 (11.5)	10(31.6)	31(75.6)	
Educational level				
Higher education	21 (5.9)	8(38.1)	13(61.9)	
Completed postgraduate studies	21 (5.9)	1(4.8)	20(95.2)	0.021
Incomplete postgraduate studies	316 (88.3)	104(33)	211(67)	
Smoker (n=356)				
No	328 (91.6)	105(32.1)	222(67.9)	0.700
Yes	28 (7.8)	8(28.6)	20(71.4)	
Alcohol consumption				
None	186 (52)	55(29.7)	130(70.3)	
Once a week	108 (30.2)	39(36.1)	69(63.9)	
Twice a week	41 (11.5)	14(34.1)	27(65.9)	0.481
Three or more times a week	23 (6.4)	5(21.7)	18(78.3)	
Benzodiazepine use				
No	345 (96.6)	111(32.2)	234(67.8)	0.256
Yes	12 (3.4)	2(16.7)	10(83.3)	
Antidepressant/anxiolytic use				
No	220 (61.6)	75(34,1)	145(65.9)	0.209
Yes	137 (38.4)	38(27.7)	99(72.3)	
Anxiety diagnosis				
No	160 (44.7)	76(47.5)	84(52.5)	<0.001
Yes	198 (55.3)	37(18.8)	160(81.2)	
Depression diagnosis				
No	212 (59.2)	76(35.8)	136(64.2)	0.039
Yes	145 (40.8)	37(25.5)	108(74.5)	
Obesity				
No	265 (74.2)	100(37.7)	165(62.3)	<0.001
Yes	92 (25.8)	13(14.1)	79(85.9)	
Hours of sleep		7(6-7)	6(6-7)	0.001
Sleep quality				
Very poor	17 (4.8)	0(0)	17(100)	
Poor	51 (14.3)	6(11.8)	45(88.2)	
Fair	148 (41.5)	37(25.0)	111(75.0)	<0.001
Good	113 (31.7)	58(51.3)	55(48.7)	
Very good	28 (7.8)	12(44.4)	15(55.6)	
Wakes up during the night				
No	133 (37.2)	45(34.1)	87(65.9)	
Yes	225 (62.8)	68(30.2)	157(69.8)	0.448

Feels rested upon waking				
No	244 (68.2)	63(25.9)	180(74.1)	0.001
Yes	114 (31.8)	50(43.9)	64(56.1)	
Required sick leave in the past 12 months (n=356)				
No	104 (29.2)	39(37.5)	65(62.5)	0.115
Yes	252 (70.8)	73(29)	179(71)	
Reason for leave (n=252)				
Psychological reasons	59 (23.4)	7(11.9)	52(88.1)	
Musculoskeletal problems	33 (9.2)	10(30.3)	23(69.7)	
Oropharyngeal diseases	24 (6.7)	6(25)	18(75)	
Surgical procedure	24 (6.7)	7(29.2)	17(70.8)	0.010
COVID-19	12 (3.4)	6(50)	6(50)	
Other reason	100 (27.9)	38(38)	62(62)	
Duration of leave (days)	10 (4-30)	7(2-18.7)	12(5-30)	0.003
Years of experience in pedagogy (n=354)*		20(13.25-23)	17(10-24)	0.154
At which educational level do you work? (n=354)*				
Early childhood education	73 (20.6)	19(26.0)	54(74.0)	
Elementary School I	145 (41)	53(36.6)	92(63.4)	0.247
Elementary School II	136 (38.4)	41(30.1)	95(69.9)	
Works at another school				
No	275 (77)	92(33.5)	183(66.5)	0,180
Yes	82 (23)	21(25.6)	61(74.4)	
Satisfaction with remuneration				
No	315 (88)	97(30.8)	218(69.2)	0.339
Yes	42 (11.7)	16(38.1)	26(61.9)	
Experienced verbal violence (n=353)				
No	62 (17.3)	30(48.4)	32(51.6)	0.002
Yes	291 (81.3)	83(28.5)	208(71.5)	
Experienced workplace harassment				
No	139 (38.8)	54(38.8)	85(61.2)	0.020
Yes	218 (60.9)	59(27.1)	159(72.9)	
Experienced physical violence (n=356)				
No	254 (70.9)	85(33.5)	169(66.5)	0.270
Yes	102 (28.5)	28(27.5)	74(72.5)	
Witnessed a colleague experiencing verbal violence[1] (n=354)				
No	44 (12.3)	16(36.4)	28(63.6)	0.471
Yes	310 (86.6)	96(31)	214(68.4)	
Witnessed a colleague experiencing physical violence (n=355)				
No	194 (54.2)	67(34.5)	127(65.5)	0.184
Yes	161 (45)	45(28.0)	116(72.0)	

Legend: MPD - minor psychiatric disorders; * Median, interquartile range, and Mann-Whitney test.
Source: Gemelli *et al*., 2026.

Among the 357 participants, 68.3% scored ≥7 on the SRQ-20, being classified as having symptoms indicative of MPD for screening purposes. Among female teachers, 72.3% had symptoms indicative of MPD, whereas the prevalence among male teachers was 47.4% (p<0.001). Regarding educational level, teachers with completed postgraduate studies showed a higher prevalence of symptoms indicative of MPD (95.2%) (p=0.021).

Regarding the assessment of the work context, teachers with symptoms indicative of MPD had a poorer perception of work organization, with a mean score of 2.72 (p<0.001). In addition, these teachers also had lower mean scores for working conditions, with values close to the severe classification of the scale (p<0.001).

Regarding sleep-related variables, the median number of hours of sleep was lower among teachers with symptoms indicative of MPD (six hours) (p=0.001). Furthermore, 88% of teachers with poor sleep quality had symptoms indicative of MPD (p<0.001), while 74.1% of those who did not feel rested upon waking also had the outcome (p<0.001).

Among the reported comorbidities, 81.2% of teachers with a diagnosis of anxiety (p<0.001), 74.5% of those with a diagnosis of depression (p=0.039), and 85.9% of those who reported obesity (p<0.001) had symptoms indicative of MPD. Regarding school location, the Restinga had the highest prevalence of symptoms (87.8%) (p<0.001).

Data on absenteeism showed that 88% of teachers on leave for psychological reasons had symptoms indicative of MPD, as did 75% of those on leave due to oropharyngeal diseases (p=0.010). The duration of leave was longer among those with symptoms indicative of MPD, with a higher median of 12 days (p=0.003).

Regarding questions on exposure to violence, 71.5% of teachers who had experienced verbal violence had symptoms indicative of MPD (p<0.001), as did 72.9% of those who reported workplace harassment (p=0.020). Among teachers who had witnessed a colleague experiencing verbal violence, 76% had symptoms indicative of MPD (p=0.022).

The multivariable model included variables that were associated with the outcome in the bivariate analysis and had theoretical relevance to mental health and the teaching work context. These are presented in Table 2.

Table 2 - Association between work context and minor psychiatric disorders using Poisson regression (n=357)

	MPD				
	B	Standard error	Exp(B)	95%CI	p

Working conditions	-0.109	0.03	0.897	0.845-0.952	<0.001
Socioprofessional relationships	-0.035	0.02	0.966	0.921-1.012	0.146
Work organization	-0.116	0.03	0.890	0.839-0.954	<0.001

Legend: MPD - minor psychiatric disorders; 95%CI - 95% confidence interval.
Source: Gemelli *et al*., 2026.

An inverse association was observed between the assessment of the work context and symptoms indicative of MPD. Better assessments of working conditions and work organization were associated with a lower prevalence of symptoms indicative of MPD. The socioprofessional relationships dimension was no longer associated with the outcome after multivariable adjustment.

In the model adjusted for sex, educational level, sleep quality, obesity, and feeling rested upon waking, the variable “exposure to violence” showed a borderline association with the outcome (p=0.073). Teachers who reported having experienced any type of violence (physical, verbal, or workplace harassment) had a higher prevalence of symptoms indicative of MPD. However, this finding should be interpreted with caution, as it did not reach statistical significance in the adjusted model.

DISCUSSION

Among the main findings of the study, poorer assessments of the dimensions of work organization and working conditions were associated with a higher prevalence of symptoms indicative of MPD among teachers, whereas socioprofessional relationships were no longer associated with the outcome after adjustment for confounding variables in the model. This finding can be understood in light of the Psychodynamics of Work, which considers work organization a central element in the production of pleasure and suffering. When work organization restricts autonomy, intensifies the pace of work, and increases demands without providing opportunities for recognition and cooperation, the potential for psychological distress increases[3].

In this population, 68.3% of teachers presented symptoms indicative of MPD. Brazilian literature reports prevalences ranging from 49.5% to 75% among basic education teachers, demonstrating the substantial magnitude of psychological distress in this professional category. Teachers represent one of the professional groups most exposed to occupational stress and psychological distress, particularly in contexts characterized by precarious working conditions and high emotional demands[12].

The prevalence of MPD observed among teachers is comparable to that identified in some professional groups exposed to situations of high occupational pressure, such as during the COVID-19 pandemic and other collective crisis situations, highlighting the magnitude of psychological distress in this professional category[4,12,16]. These findings demonstrate that psychological distress among teachers constitutes an important occupational health problem, with repercussions for absenteeism, work capacity, and the use of health services.

Psychological distress among school teachers has been identified in research for several years, with no signs of a recent reduction. A qualitative study demonstrated that the complaints and demands expressed by these professionals have shown little change in recent years[17]. Issues regarding low wages, work overload, inadequate work environments, verbal and physical violence, and limited institutional support are recurrent themes in studies involving these professionals[2,10]. The persistence of these factors over time reinforces the need for interventions targeting work organization and the conditions under which teaching activities are performed, rather than focusing solely on the individual.

The predominantly female population identified in this study is consistent with other demographic research on these professionals, as the fields of education and pedagogy have historically been predominantly female. Nevertheless, there was a disproportionately high level of psychological distress among female professionals[18]. This association may be related to multiple social, and family demands frequently assumed by women, in addition to the demands inherent in teaching. However, these findings should be interpreted with caution, considering the possibility of unmeasured social and occupational factors.

A high prevalence of symptoms indicative of MPD was observed among teachers with completed postgraduate education, raising questions about working conditions and the professional demands often associated with higher levels of qualification. National and international studies have reported a high prevalence of psychological disorders among adults pursuing undergraduate and postgraduate education[19,20].

Brazilian studies conducted in university settings identify an association between stress levels and teachers' academic degree, a phenomenon possibly related to professional demands, an overload of responsibilities, and greater pressure for productivity[20,21]. In the school setting, educational policies sometimes prioritize increased productivity and the achievement of targets, while neglecting teachers' working conditions and physical and

mental exhaustion. This finding should be interpreted cautiously, as it may be influenced by factors such as multiple employment relationships, greater workloads, or differences in the roles performed by teachers with higher educational levels.

Insufficient or poor-quality sleep was associated with a higher prevalence of symptoms indicative of MPD. The literature demonstrates a bidirectional relationship between sleep and mental health, in which emotional disturbances may impair sleep quality, while inadequate sleep may intensify psychological symptoms[22,23]. Studies involving teachers demonstrate that factors such as high workload musculoskeletal pain, occupational stress, and difficulties in balancing work and personal life contribute to impairments in sleep and psychological well-being[24].

The results also indicated a high frequency of anxiety and depression diagnoses among teachers with symptoms indicative of MPD. Previous studies have identified an association between psychological distress, dissatisfaction with remuneration, negative perceptions of the work environment, and exposure to violence in the school setting[25,26]. These findings suggest an important co-occurrence between symptoms screened by the SRQ-20 and previously diagnosed emotional conditions.

In the sample, psychological causes represented a major reason for workplace absenteeism, with a high frequency of symptoms suggestive of MPD among teachers on leave. This finding is similar to that observed in national studies linking emotional distress, burnout, and occupational overload to absence from professional duties[27]. Alongside the emotional component, voice disorders also stand out in the literature as significant causes of teacher absenteeism, considering that the voice is these professionals' primary work tool[27].

A high frequency of exposure to verbal violence, workplace harassment, and physical violence was observed in the school setting. Teachers exposed to violence had a higher prevalence of symptoms indicative of MPD, a finding consistent with studies linking exposure to violence in the school context to emotional exhaustion, psychological distress, and burnout[8,16,28].

Violence in the school setting is often associated with social contexts characterized by vulnerability, social inequality, and fragile family and community support networks[8]. These factors contribute to insecurity in the school environment and negatively affect teachers' mental health, in addition to compromising the teaching-learning process.

Although the variable "violence" showed a borderline association in the adjusted model, the observed trend suggests a possible relationship between exposure to violence

and a higher prevalence of symptoms indicative of MPD. Furthermore, the literature indicates that school environments marked by violence, regardless of its nature or intensity, may foster feelings of insecurity, emotional strain, and psychological distress among teachers[4,10,16]. Although violence was no longer associated with the outcome after adjustment, its high frequency and consistency with the literature suggests that it remains an important contextual factor for teachers' mental health.

Teachers with symptoms indicative of MPD showed poorer scores, particularly in the dimensions of work organization and working conditions. This finding may indicate that psychological distress cannot be understood solely as an individual characteristic of teachers, but also as a phenomenon related to objective working conditions.

The observed association reinforces the theoretical model of the psychodynamics of work, which identifies work organization as one of the main determinants of the production of pleasure or suffering at work. Mental illness emerges as a result of the interaction between high occupational demands that exceed available resources and organizational support[4,10,16].

Although socioprofessional relationships may contribute to mental strain and were associated with the outcome in the initial analyses, this dimension was no longer associated with the outcome after multivariable adjustment. This finding suggests that, in the population studied, structural factors related to work organization and working conditions exerted a greater influence on symptoms indicative of MPD. However, some teachers may find support in interpersonal relationships with their peers, who can create spaces for mutual support and group strengthening in the face of shared adversities[4,10,29].

The findings of this study have implications for occupational nursing, occupational health surveillance, and public education policies. As only the dimensions of work organization and working conditions remained associated with symptoms indicative of MPD, interventions should prioritize these aspects of teaching work. The findings reinforce the importance of monitoring psychosocial factors related to teaching. Collaboration between the health and education sectors may strengthen actions to prevent work-related illness and foster healthier work environments.

Data collection conducted exclusively through an online form and based on voluntary participation may have introduced selection bias, particularly due to the possible greater participation of teachers who were more sensitive to the topic or experiencing greater psychological distress. Furthermore, potential factors associated with symptoms indicative of MPD may not have been measured, such as aspects related to family support,

individual coping characteristics, and specific conditions of the school environment. The cross-sectional design also precludes establishing temporality between exposure and outcome, limiting interpretations regarding the direction of the identified associations.

Future studies should longitudinally investigate the relationship between the work context, exposure to violence, and symptoms indicative of MPDs among teachers, allowing for a better understanding of the temporality of these associations. Additionally, studies evaluating the effectiveness of work reorganization strategies and interventions conducted by multidisciplinary health teams are needed.

CONCLUSION

There was a high prevalence of symptoms indicative of MPD, identified through screening with the SRQ-20, among teachers in the municipal school system of Porto Alegre. An association was observed between a higher frequency of these symptoms and poorer assessments of the dimensions of work organization and working conditions. Associations were also identified with poorer sleep quality and the absence of a feeling of being rested upon waking. Exposure to violence showed a trend toward an association with symptoms indicative of MPD.

These findings reinforce the importance of organizational aspects and the working conditions for teachers' mental health, in line with the perspective of the Psychodynamics of Work, which recognizes work organization as a central element in the generation of work-related distress. Given this scenario, monitoring work-related psychosocial factors and integrated action between health and education services are important for promoting healthier work environments.

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DATA AND MATERIAL AVAILABILITY

Access to the dataset is available upon request from the corresponding author.

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