

ORIGINAL ARTICLE

Somatization disorder and stress in teachers: a comprehensive occupational health evaluation

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Somatization disorder is a biopsychosocial-based, stress-induced disorder involving multiple physical ailments with no medical explanation. The teaching profession is characterized as very stressful, making teachers at risk of developing somatization disorder. This study examined somatization disorder in a K-12 teacher population. A total of 2,988 teachers from 46 Texas districts responded to a comprehensive online occupational health survey. Somatization disorder was assessed using the Patient Health Questionnaire. Univariate analyses were conducted between teachers with and without somatization disorder to identify specific relationships with demographic variables, occupational variables, perceived stress, Axis I psychopathology, and physical health. A logistic regression was developed to identify the variables most strongly associated with the presence of somatization disorder in a teacher population. Analyses showed that female teachers are 3.3 times more likely to develop somatization disorder. Compared to Caucasians, African American teachers are 3.9 times and Hispanic teachers are 2.0 times more likely to develop somatization disorder. Moreover, higher levels of stress, poorer physical quality of life, major depression, panic and anxiety disorder were significantly related with somatization disorder ($p < .05$). Higher levels of stress and poorer physical and mental health are among the psychosocial and demographic factors associated with somatization disorder in public school teachers.

1 | INTRODUCTION

Somatization disorder is characterized by the presence of multiple physical ailments without medical explanation (Harvey & Wessely, 2013). These ailments include, but are not limited to: headaches, fibromyalgia, irritable bowel syndrome, temporomandibular joint pain, and chronic fatigue syndrome (Nater, Fischer, & Ehlert, 2011). Somatization disorder is most often explained as a biopsychosocial stress-induced disorder, which suggests that the disorder is caused by stress and affects interactions between biological, social, and psychological factors.

In its simplest form, stress can be defined as a stimulus that alters the body's physical or psychological homeostasis (Drossman, 1994). Traditionally stress research was focused on the individual's physical and mental health; however, more recent studies have identified how an individual's stress affects social functioning, including occupational implications. According to Nater et al. (2011), stress may be responsible for 30% of all illnesses and accidents that occur in the industrialized nations. These illnesses and accidents not only have a significant effect on the health of citizens living within these nations, but can have a significant toll on their economy as well, accounting for 3.5% GDP in these nations (Nater et al., 2011). A study on occupational stress in 2008 reported that corporations lose \$8,000 per person annually due to absenteeism caused by stress-induced illnesses (Darr & Johns, 2008). The detrimental health and economic impact of illness and accidents due to biopsychosocial stress makes somatization disorder an important area to study.

To understand how somatization disorder impacts the individual in the workplace, it is important to understand the type of person that is likely to develop somatization disorder. Past research indicates that somatization disorder has been found to occur more frequently in females compared to males and tends to occur more frequently in young- and middle-aged adults (White, 2013). The disorder also has high comorbidity rates with many psychological disorders, the most common being anxiety and depression (Creed et al., 2012). Individuals who have experienced severe traumatic events such as sexual abuse, divorce, and childhood psychological abuse are much more likely to develop somatization disorder than individuals who have not experienced a traumatic event (Creed et al., 2012; Paras et al., 2009; Van Oudenhove et al., 2011).

1.1 | Occupational health and stress

Although there has been a lack of research on occupational health and somatization, findings from published studies have shown that poor mental and physical health can be triggered by work-related stress. Occupational stress occurs when an individual's perceived job demands exceed their perceived resources, and poor working conditions, lack of job security, bullying, and low job control have been found to cause stress in individuals (Mulholland, McKinlay, & Sproule, 2013). Work-life imbalance and lack of job satisfaction have also been linked to stress on the job (Johnson et al., 2005). The body's stress response system can cause changes to the immune system and central nervous system, which can lead to both mental and physical illnesses (Bartholomew, Ntoumanis, Cuevas, & Lonsdale, 2014; Barutçu & Serinkan, 2013; Johnson et al., 2005). Occupational stress has been linked to physical illnesses such as gastrointestinal disturbances, heart disease, and back pain, as well as psychological disorders such as depression and anxiety (Johnson et al., 2005). Furthermore, several occupations have been labeled as "high risk" for occupational stress (Johnson et al., 2005).

1.2 | Stress in teachers

Occupations in human services have specifically been cited for having high levels of job stress, and those with the highest reported stress levels include ambulance workers, teachers, social services, customer services (call centers), prison officers and police (Johnson et al., 2005). Occupational stress is defined as negative job demands that lead to negative feelings and emotions (Kovač, Leskošek, Hadžić, & Jurak, 2013; Kyriacou, 2001; Yang, Ge, Hu, Chi, & Wang, 2009). Teaching, in particular, has been reported to be one of the most stressful current professions (Yang

et al., 2009). Johnson et al. (2005) examined 26 occupations and found that teachers had the second highest average score on physical illness and mental illness and the sixth lowest score in job satisfaction. Stress in teachers has been linked to factors including overall burnout and effort-reward imbalance, which is described as high work effort combined with low intrinsic or extrinsic reward (recognition or pay) (Derycke, Vlerick, Van de Ven, Rots, & Clays, 2013; Kuntz, Näswall, & Bockett, 2013). Interpersonal interactions are identified to be the most salient stressors attributed to poor health in teachers including unruly students, angry parents, and unsupportive administrators (Billingsley & Cross, 1992; Friedman, 2000).

Methods of teacher evaluation have also become a major stressor. Research has shown that significant levels of job-related stress in teachers are related to pressure from school authorities and colleagues (Bartholomew et al., 2014). Teachers are often evaluated on the performance of their students, the courses that they teach, and their ability to adapt to new teaching techniques, many of which they have no direct control over (Bartholomew et al., 2014). These evaluations can often cause interpersonal conflict between employees (teachers) and supervisors (administrators), which may lead to poor personal psychological outcomes in teachers (Frone, 2000). Teachers are also under pressure from state and national government agencies. New legislation and public education reform have led to significant changes in the way teachers manage their classrooms. All these factors have led to increased stress levels and low levels of job satisfaction (Watts & Short, 1990).

There are few studies on how occupational stress affects health problems in teachers (Bartholomew et al., 2014). The research conducted has indicated that teachers with work-related stress also experience significant levels of anxiety, cardiovascular disease, hypertension, headaches, musculoskeletal problems, and shorter life spans (Kovač et al., 2013; Yang et al., 2009). Identifying how somatization is associated with occupational stress may help with the diagnosis and treatment of many of the physical and psychological symptoms that teachers experience.

While most occupational health studies on teachers have highlighted physiological and psychological ailments, this study seeks to bridge the gap in research first by evaluating the relationship between somatization and occupational stress in teachers, and secondly by examining how somatization disorder affects occupational factors, such as job satisfaction, absenteeism, and intent-to-quit. It is hypothesized that teachers with somatization disorder will exhibit more workplace stress and dissatisfaction, and will also report more physical and psychological symptoms.

2 | METHOD

2.1 | Participants

The participants in this study included 2,899 teachers in public schools in Texas. This study used a single-stage cluster sampling design for which all teachers in 46 school districts in Texas were asked to participate in an anonymous online study. Inclusion criteria were that the participant was currently employed as a certified K-12 teacher. There were no exclusion criteria.

2.2 | Procedures

A one-time email was sent containing a link to the survey asking for voluntary, non-incentivized participation. Of the 3,361 teachers who agreed to participate, 2,899 completed the section assessing somatization disorder and were included in this study. The survey was a comprehensive occupational health survey that took approximately 45 min to complete and participants were able to skip questions. While most participants fully completed the occupational portion of the study, over 400 participants did not respond to the mental health questionnaire, and were therefore not included in the analysis for this sub-study on somatization disorder. This study was approved by the Institutional Review Board and informed consent was obtained for each participant.

2.3 | Measures

2.3.1 | Demographic variables

Demographic information was obtained by asking participants to report their age, gender, ethnicity, and marital status.

2.3.2 | Participant health

Several surveys and inventories were utilized in this study to assess participant health. The Short Form 36 Health Inventory, the Patient Health Questionnaire (PHQ), and a standard medical intake assessment were used to assess physical and mental health.

The Short Form 36 Health Inventory (SF-36) is a 36-item quality of life survey that measures physical and mental health. The physical composite score and the mental composite score are derived from questions related to bodily pain, general health problems, vitality, social functioning, general health perception, physical functioning, and mental/physical role limitations. Scores range from 0 to 100 with the mean score being 50 with a standard deviation of 10, with higher scores indicating better health. For reliability, the Cronbach's alpha value for both the physical and mental health summary scores exceeded .90. The SF-36 is a widely used and validated measure of health-related quality of life (Ware & Sherbourne, 1999).

An intake assessment often used in physician's offices to determine pre-existing conditions was utilized. This is a self-report assessment that contains a 60-item checklist regarding physical health problems such as allergies, epilepsy, headache/migraine, cardiovascular issues, pulmonary issues, gastrointestinal issues, and muscle and joint health. The patient would check/indicate any items that represented current health problems for them. The items, as appropriate, were then collapsed into four categories: Gastrointestinal Health, Neurological Health, Musculoskeletal Health, and Cardiovascular/Pulmonary Health.

The PHQ is a self-report measure that has been validated against the PRIME-MD for diagnosing Axis I mental disorders, using the DSM-IV criteria. Its primary use is to evaluate anxiety disorder, major depressive disorder, panic disorder, and somatization disorder (Kroenke, Spitzer, & Williams, 2001). The criteria for somatization disorder are based on thirteen questions that ask how much participants have been bothered in the past 4 weeks by problems such as stomach pain, back pain, limb and joint pain, menstrual cramps, pain during intercourse, headaches, chest pain, dizziness, fainting spells, heart racing, shortness of breath, gastrointestinal issues, and nausea. Response options include "not bothered at all," "bothered a little," and "bothered a lot." Participants must answer "bothered a lot" to three or more of these items to meet the criteria for somatization disorder.

2.3.3 | Perceived stress

The Perceived Stress Scale is a 10-question survey measured on an 11-point Likert scale (0–10) that measures the amount of stress an individual is feeling. This survey measures how predictable an individual feels his/her life is, how much an individual feels control over his/her life, and overload. The Perceived Stress Survey is widely used and has been shown to be both reliable and valid (Cohen, Kamarck, & Mermelstein, 2000).

2.3.4 | Occupational factors

Several occupational factors were assessed in this study. Absenteeism was assessed by determining how many days participants had missed work due to illness or non-illness in the past 4 weeks. Presenteeism was assessed by determining how many times participants attended work while sick in the past 4 weeks. Job control was assessed using six items from the U.S. Department of Education National Center for Educational Statistics Teacher Questionnaire (NCES, 2010). Those job control items assessed the extent to which teachers can choose their teaching materials, plan their

lessons, etc. Job satisfaction was measured using an 11-point Likert scale (0–10) measuring 10 areas of job satisfaction, specifically asking the degree to which the teacher feels supported by the community, legislators, the school administrators, teachers, parents, and students. Intent to quit the profession in either the next year or within 5 years was assessed by having participants rate their likelihood to quit on a scale from 1 to 10, with 10 being 100% likely to quit.

2.4 | Statistical analyses

All analyses were conducted using SPSS v. 22. A cluster weight was developed using the demographics provided by the Texas Education Agency. The univariate comparisons for demographic variables, occupational variables, mental health variables, and physical health variables were assessed using Pearson Chi-Square tests for categorical variables and Independent *t* tests for continuous variables, controlling for gender, age and ethnicity. A sequential binary logistic regression analysis was used to determine the key demographic, occupational and health factors that are most associated with somatization disorder in teachers. Only variables significant at the univariate level were used in the multivariate analysis. Listwise deletion was used to control for missing data. The significance criterion for this study was set at an alpha level of $p = .05$.

3 | RESULTS

Across the sample of 2,899 teachers who completed the section assessing somatization disorder, 940 teachers met the criteria for somatization disorders and 1959 did not. At the univariate level, younger teachers and female teachers were more likely to meet the criteria for somatization disorder. Hispanic and "other" ethnic/racial groups were more likely to meet criteria for somatization disorder and Caucasians were significantly less likely to report somatization disorder (see Table 1). For all subsequent analyses, age, gender and ethnicity were included as covariates.

TABLE 1 Weighted demographic variables associated with Somatization Disorder

	Somatization Disorder N = 940	No Somatization Disorder N = 1,959	Statistical comparison p value
Age Mean (SD)	42.5 (10.8)	44.5 (11.9)	<.001
Gender (%)			
Male	12.7	26.1	<.001
Female	87.3	73.9	
Ethnicity (%)			
African American	8.7	8.0	NS
Asian	0.7	0.8	NS
Caucasian	58.5	71.5	<.001
Hispanic/Latino	28.8	17.2	<.001
Other	1.8	0.8	.018
Marital status (%)			
Single	21.6	21.9	NS
Married	63.0	63.4	
Separated	1.5	1.3	
Divorced	11.5	11.9	
Widowed	2.4	1.5	

TABLE 2 Weighted teaching-specific comparisons associated with Somatization Disorder

	Somatization N = 940	No Somatization N = 1,959	Statistical comparison p value
Years experience			
Mean years (SD)	12.1 (8.5)	13.7 (9.7)	.042
1–5 years	26.5%	23.4%	
6–10 years	25.4%	23.3%	
11–15 years	18.1%	16.8%	
16–20 years	11.5%	13.4%	
21+ years	18.5%	23.2%	
School type			
Elementary	47.8%	39.9%	
Middle/Junior High	24.7%	21.5%	.007
High School	27.5%	38.7%	
Subject taught			
Core courses	61.5%	59.1%	NS
Total number of students Mean (SD)	100.4 (116.7)	107.5 (112.4)	NS
Job satisfaction Mean (SD)	49.5 (19.6)	60.5 (19.9)	<.001
Job control Mean (SD)	16.4 (4.0)	17.7 (3.7)	<.001
Absenteeism			
Mean days per last 4 weeks (SD)			
Personal illness	1.2 (2.8)	0.5 (1.1)	<.001
Personal non-illness	0.7 (1.1)	0.7 (1.5)	NS
Presenteeism	3.4 (4.7)	2.0 (3.2)	<.001
Mean days present while ill per last 4 weeks (SD)			
Intent to quit profession (attrition) Scale 0–10 with 10 being 100% likely Mean (SD)			
Within 1 year	3.8 (3.6)	2.4 (3.2)	<.001
Within 5 years	6.0 (3.7)	4.7 (3.8)	<.001

For the teacher-specific variables, teachers with few years of experience, teachers working at elementary schools and teachers indicating lower job satisfaction and job control were significantly more likely to meet the criteria for somatization disorder (see Table 2). No significant differences were identified between teachers who teach core versus elective courses, nor were there differences indicated in the total number of students for whom the teachers are responsible. Teachers with somatization disorder were more likely to have more days of absenteeism for personal illness and more days of presenteeism. Furthermore, teachers with somatization disorder were significantly more likely to intend to quit the teaching profession in both the current year and in the next 5 years.

Teachers with somatization disorder reported significantly higher rates of perceived stress and poorer levels of both physical and mental health-related quality of life (see Table 3). In addition, teachers who met criteria for somatization disorder were also significantly more likely to meet criteria for major depressive disorder, panic disorder, and anxiety disorder, and were also significantly more likely to be taking medication or seeking assistance from a mental

TABLE 3 Weighted psychosocial comparisons associated with Somatization Disorder

	Somatization N = 940	No Somatization N = 1,959	Statistical comparison p value
Perceived Stress Scale Mean (SD)	23.3 (6.0)	16.2 (6.6)	<.001
SF-36 Quality of Life Mean (SD)			
Physical composite	47.3 (9.7)	52.5 (8.4)	<.001
Mental composite	34.0 (11.5)	45.5 (11.7)	<.001
Axis I Psychopathology %			
Major depression	44.5	9.0	<.001
Anxiety disorder	39.5	6.7	<.001
Panic disorder	21.6	2.4	<.001
Treatment for depression or anxiety			
% Taking medication	29.7	15.3	<.001
% Seeing counselor	16.4	5.8	<.001

TABLE 4 Weighted current medical condition comparisons associated with Somatization Disorder

	Somatization (%)	No Somatization (%)	Statistical comparison p value
Gastrointestinal	72.1	33.7	<.001
Neurological	73.1	39.2	<.001
Musculoskeletal	81.3	58.5	<.001
Heart/Pulmonary	34.5	17.5	<.001

health professional specifically for psychological distress. Table 4 shows the comparisons of the presence of common medical ailments. Teachers with somatization disorder were significantly more likely to report gastrointestinal disorders, neurological disorders, musculoskeletal disorders, and heart and pulmonary disorders.

For the simultaneous binomial logistic regression analysis, the demographic variables along with all variables significant at the univariate level were included in the model (see Table 5). The analysis demonstrated that female teachers are 3.3 times more likely to meet the criteria for somatization disorder. Compared to Caucasians, African American teachers are 3.9 times and Hispanics are 2.0 times more likely to meet the criteria for somatization disorder. Furthermore, higher levels of stress, poorer physical quality of life, major depression, panic disorder, and anxiety disorder in teachers were significantly associated with somatization disorder. Teachers with gastrointestinal disorders were 3.2 times more likely to meet the criteria for somatization disorders and teachers with neurological disorders were 1.6 times more likely to meet the criteria for somatization disorder.

4 | DISCUSSION

The goal of this study was to better understand the negative effects of stress in a teacher population, and to identify the prevalence of somatization disorder for public school teachers and to distinguish occupational and health factors most associated with the development of this disorder.

TABLE 5 Weighted logistic regression analysis evaluating factors most associated with Somatization Disorder

	<i>B</i>	Wald χ^2	<i>p</i> -Value	Odds ratio/95% CI
Demographic variables				
Age	-0.008	0.30	.588	0.992 [0.964, 1.021]
Male Gender	-1.2	14.3	.000	0.301 [0.162, 0.561]
Race/Ethnicity (Ref: White)				
Asian	1.3	0.90	.342	3.507 [0.264, 46.634]
African American	1.4	13.3	.000	3.946 [1.886, 8.255]
Hispanic	0.68	7.05	.008	1.964 [1.194, 3.232]
Other	1.145	1.3	.261	3.141 [0.427, 23.107]
Occupational factors				
School type (Ref: Elementary)				
Middle school	0.727	7.930	.005	2.069 [1.247, 3.431]
High school	-0.206	0.716	.397	0.814 [0.506, 1.311]
Years teaching	-0.005	0.077	.781	0.995 [0.961, 1.030]
Job satisfaction	-0.007	1.564	.211	0.993 [0.981, 1.004]
Job control	-0.010	0.103	.749	0.990 [0.934, 1.050]
Absent (illness)	-0.132	2.145	.143	0.877 [0.735, 1.046]
Present (while ill)	0.022	0.861	.354	1.023 [0.975, 1.072]
Attrition (1 year)	0.033	0.627	.428	1.034 [0.952, 1.122]
Attrition (5 years)	0.028	0.701	.402	1.028 [0.964, 1.096]
General health factors				
Perceived Stress Score	0.084	11.289	.001	1.088 [1.036, 1.143]
SF-36 Mental Composite	-0.011	6.700	.392	0.905 [0.885, 0.924]
SF-36 Physical Composite	-0.04	0.732	.010	0.956 [0.989, 0.964]
Major depression	0.94	11.139	.001	2.564 [1.475, 4.458]
Panic disorder	1.33	13.356	.000	3.782 [1.853, 7.717]
Anxiety disorder	0.575	4.168	.041	1.777 [1.023, 3.086]
Gastrointestinal	1.17	30.257	.000	3.232 [2.128, 4.909]
Neurological	0.48	4.290	.038	1.611 [1.026, 2.529]
Musculoskeletal	0.46	3.108	.078	1.585 [0.950, 2.645]
Heart/Pulmonary	-0.02	0.007	.934	0.980 [0.613, 1.569]

The results of this study are consistent with previous findings; higher levels of stress and poorer physical and mental health are among the psychosocial and demographic factors associated with somatization disorder in public school teachers (Kovač et al., 2013; Yang et al., 2009). The results also support the idea that somatization is a common comorbidity of depression and anxiety (Löwe et al., 2008). This demonstrates the impact of comorbid physical and mental factors and how they can negatively affect the performance and job satisfaction of teachers.

The results regarding job satisfaction and control are consistent with the findings of Besse, Howard, Gonzalez, and Howard (2015) who concluded that lower job satisfaction and control significantly predicted major depressive disorder. As depression has been found to be comorbid with somatization, it can be inferred that this relationship holds up between somatization, lower job satisfaction and control (Löwe et al., 2008). This also supports the findings that teachers experience more issues regarding psychological health and job satisfaction than other occupations

(Johnson et al., 2005). This is important as it demonstrates a need for future research regarding better coping strategies for teachers to possibly reduce their levels of somatization and its comorbid symptoms.

Researchers have suggested that teachers experience high levels of stress because there have been significant changes in the profession in recent history (Van Droogenbroeck & Spruyt, 2015). This is partially due to the idea of "intensification" (Ballet & Kelchtermans, 2009, p. 1156). Ballet and Kelchtermans (2009, p. 1156) define intensification as the idea that lawmakers have embraced a perspective of education that is "emotionally charged" and focuses on "[a call] for change." This can lead to more responsibility and administrative duties left to the educator that are unrelated to teaching (Van Droogenbroeck & Spruyt, 2015). In addition, von der Embse, Pendergast, Segool, Saeki, and Ryan (2016) identified that pressures attributed to increased accountability, including high-stakes testing, was significantly related to increases in teacher stress. These findings are significant as they demonstrate that stress and somatization may present themselves due to the immense and difficult responsibilities that teachers have.

Addressing the higher rates of somatization found in Hispanic participants, consistent with the results of this study, Aragona et al. (2005) found that the Latin Americans in their sample had significantly higher rates of somatization when compared with Caucasian, Asian, and Africans groups. One suggestion for this difference in somatization rate is attributed to cultural background and/or cultural differences between the country of residence and the country of origin, such that because of the negative stigma sometimes associated with emotional and mental health concerns, it may be more accepted to report physical ailments (Aragona et al., 2005). A study conducted by Nadeem, Lange, and Miranda (2009) found that ethnic minority groups are less likely to discern a need for help when experiencing emotional turmoil. These findings suggest that perceived need for medical care assistance varies among ethnic groups and may act as an indicator of susceptibility to somatization disorder (Nadeem et al., 2009).

Results for somatization disorder and gender are mixed. Consistent with the findings of this study where female teachers were more likely to meet the criteria for somatization disorder, previous research has reported most symptoms were more frequently present among females as opposed to males (Aragona, Monteduro, Colosimo, Maisano, & Geraci, 2008; White, 2013), whereas other studies have found no significant difference in somatization among genders (Castro, Carbonell, & Anestis, 2012; Khan, Khan, Harezlak, Tu, & Kroenke, 2003). Khan et al. (2003) suggest that this discrepancy is due to women being more likely to report symptoms of somatization than men, but not having a higher prevalence. Future research should be conducted to identify the dynamics of this relationship.

Research on somatization disorder and age also show mixed results. White (2013) found somatization appeared most frequently in young- and middle-aged adults. Whereas Glise, Ahlborg, and Jonsdottir (2014) found that while symptoms of somatization increase with age, this is not the case if the individual is experiencing stress-related exhaustion. While this study showed that younger teachers were more likely to meet the criteria for somatization disorder, it could possibly be attributed to less experience in the teaching profession.

Although this study identified a relationship between stress with poor physical and mental health, there are some limitations. One limitation is that this study focused solely on Texas teachers. Other factors, such as environmental, community, cultural, or legislative stressors may affect Texas teachers differently than those in other states and professions. To better generalize these results, further replications of this study should be conducted in other geographical regions and among other professions to see if this study's findings will be consistent in other populations. This could then demonstrate other occupations with a high presence of somatization.

Another possible limitation is that since the majority of participants were Caucasian women, the generalizability of the findings is limited. Furthermore, due to the stigma associated psychological and physical health, participants may have also been dishonest in their answers regarding mental and physical health issues. Finally, this was a comprehensive survey measuring a myriad of health and occupational factors. Due to the length of this survey, fatigue or boredom may have developed during the process of completion. This fatigue or boredom may have influenced participants' response accuracy. Despite these limitations, this study aims to add to the literature regarding the relationship between occupational stress and somatization, and ultimately to assist in creating a healthier and stress-free work environment for teachers. Lastly, the questionnaire used to assess somatization disorder, was validated under

the DSM-IV criteria that specified that the medical symptoms must be unexplained physiologically. Under the new DSM-V somatoform disorder criteria, this requirement is no longer needed for a diagnosis as long as the symptoms are shown to interfere with the individual's thoughts, feelings, and behaviors.

The strength of this study provides a platform to better understand the relationship between psychosocial stress and poor physical health within the teaching profession. Understanding how somatization disorder affects teachers in the workplace suggests the need for intervention aimed at stress reduction and adaptive coping strategies. For example, teachers could participate in workshops or in-service activities focusing on relevant stress management techniques. Also teachers could be encouraged to take advantage of employee assistance program services, such as counseling, to deal with life and job stress. Other researchers have also concluded that leisure time is essential for reducing a teacher's emotional stress (Grund, Brassler, & Fries, 2016). This shows that stress coping should also be employed through leisure activities as well as stress management training to facilitate improved coping. Finally, teachers should be encouraged to maintain a strong social support network as lower social support has been linked with higher levels of depression, a disorder comorbid with somatization disorder (Wilson et al., 2014). Focusing on prevention of somatic symptoms by implementing stress management interventions may reduce levels of absenteeism due to stress-related illnesses and may also lead to increased job satisfaction in public school teacher populations.

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