Teacher Stress and Health

Effects on Teachers, Students, and Schools

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This issue brief, created by the Pennsylvania State University with support from the Robert Wood Johnson Foundation, is one of a series of briefs addressing the need for research, practice, and policy on social and emotional learning (SEL). SEL is defined as the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

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Executive Summary

Teachers play a critical role in shaping the lives of our nation's children. Teachers not only facilitate learning, but also influence a child's social and emotional development.

Today, teaching is one of the most stressful occupations in the U.S. High levels of stress are affecting teacher health and well-being, causing teacher burnout, lack of engagement, job dissatisfaction, poor performance, and some of the highest turnover rates ever.

Stress not only has negative consequences for teachers, it also results in lower achievement for students and higher costs for schools. A New York City study showed higher teacher turnover led to lower fourth and fifth grade student achievement in both math and language arts. The cost of teacher turnover is estimated to be over $7 billion per year.

There are four main sources of teacher stress.

- **School Organizations** that lack strong principal leadership, a healthy school climate and a collegial, supportive environment;
- **Job Demands** that are escalating with high-stakes testing, student behavioral problems, and difficult parents;
- **Work Resources** that limit a teacher's sense of autonomy and decision-making power; and
- **Teacher Social and Emotional Competence** to manage stress and nurture a healthy classroom.

Interventions to help reduce teacher stress fall into three broad categories:

1. **Organizational Interventions** – An approach that focuses on changing the organization's culture to prevent stress from occurring;
2. **Organization-Individual Interface Interventions** – An approach that includes building workplace relationships and support;

46% of teachers report high daily stress during the school year.* That's tied with nurses for the highest rate among all occupational groups.

* Gallup (2014). State of American Schools. Retrieved from http://www.gallup.com/services/178709/state-america-schools-report.aspx.

3. **Individual Interventions** – An approach that teaches individuals practices to manage stress.

Several programs and policies are proven to help teachers reduce stress, improve well-being and student outcomes, and even save schools money. These include:

- **Mentoring and induction programs** for beginning teachers can improve teacher satisfaction and retention, as well as student academic achievement. (Organization-Individual Interface)
- **Workplace wellness programs** have resulted in reduced health risk, health care costs, and absenteeism among teachers. (Organization-Individual Interface)
- **Social emotional learning (SEL) programs** that improve behavior and promote SEL among students also help reduce teacher stress and create more positive engagement with students. (Organization-Individual Interface)
- **Mindfulness/stress management programs** can help teachers develop coping and awareness skills to reduce anxiety, depression, and improved health. (Individual)

Still, much more needs to be done to reduce the current teacher crisis, particularly on an organizational level. Basic research is needed on additional ways to reduce teacher stress and support teacher health and wellness, in order to prevent the negative consequences that impact teachers, students, parents, communities, and school systems.

Introduction

Teachers play an important role in the lives of children. In addition to facilitating learning, teachers are key agents of socialization, helping students reach their highest potential[1] and develop into responsible citizens. But, over the past years, teaching has become increasingly stressful.

Today, teaching is one of the most stressful occupations in the U.S. Teacher stress impacts teacher health and well-being, work attitudes (e.g. job satisfaction), and turnover. Teacher stress is linked to teaching performance and student academic outcomes. High stress levels are causing teachers to leave their profession, which causes instability among staff, students, and the community. In response, schools and districts are hiring newer teachers with less experience, resulting in lower student achievement and significant training costs for our nation's school systems.

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This research brief examines the sources and effects of teacher stress, highlights programs and policies that can reduce teacher stress and improve teacher well-being and performance, and recommends next generation research, real-world policies, and systematic, sustainable practices that can build and sustain a culture of health for teachers in U.S. schools.

What Is Job Stress?

Job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health including psychological and physiological symptoms (such as depression, anxiety, poor sleep patterns, etc.) and even injury.[2]

Key Findings

There Are Four Main Sources of Teacher Stress

School Organization: Leadership, Climate and Culture

A supportive school culture, strong principal leadership and a collaborative, collegial environment are associated with higher job satisfaction among teachers and intentions of novice teachers to continue teaching.[3,4] High teacher trust in both their colleagues and leadership is related to lower stress and burnout. Unsatisfactory relationships with administrators, colleagues, or students may increase teacher stress,[5] lower job satisfaction,[6] and lower commitment to students.[7] There is also a relationship between teacher turnover and principal turnover. Frequent principal turnover results in lower teacher retention rates. Leadership changes are particularly harmful for high poverty schools, low-achieving schools, and schools with many inexperienced teachers.[8]

Job Demands

Continued high demands on the job are a key predictor of teacher stress. Increased use of high-stakes testing at the state and district levels may be exacerbating this problem by limiting teachers' control over the content and pace of their own work, and increasing threats of teacher termination and school

closure.[9] Managing students with behavior problems and working with difficult parents are two other demanding interpersonal challenges that produce chronic stress and leave teachers more vulnerable to depression.

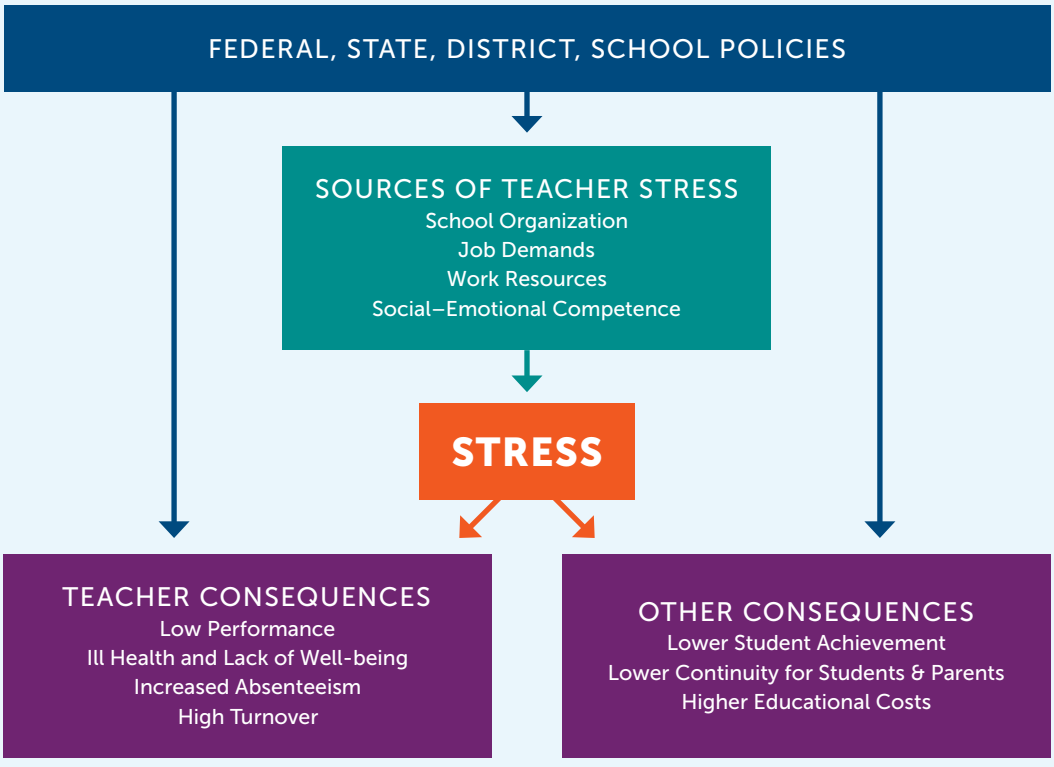
Work Resources: Support and Autonomy in Decision-Making

When school leaders create opportunities for decision-making and collaboration among teachers, teachers feel empowered and have higher satisfaction.[10] Among professional occupations, teachers rate lowest in feeling that their opinions count at work.[11] The percentage of teachers who report low job autonomy has increased from 18 percent in 2004 to 26 percent in 2012.[12] Retaining high quality teachers means ensuring they have a voice in school-level decisions, and not subjecting them to unrealistic expectations. In addition, co-worker support and job control are key issues. Greater job control has been found to reduce the impact of stress on health in teachers.[13]

Teachers' Personal Resources and Social-Emotional Competence

When high job demands and stress are combined with low social-emotional competence (SEC) and classroom management skills, poor teacher performance and attrition increase.[14] A teacher's own SEC and well-being are key factors influencing student and classroom outcomes.[15] Yet, few teachers have had training opportunities to attend to and develop their own SEC. If a teacher is unable to manage their stress adequately, their instruction will suffer, which then impacts student well-being and achievement. In contrast, teachers with

Causes and Consequences of Teacher Stress



better emotion regulation are likely to reinforce positive student behavior, and support students in managing their own negative emotions.[16,17] Teachers with high SEC also report more positive affect, greater principal support, higher job satisfaction, and a sense of personal accomplishment.[18]

Teacher Stress Has Many Negative Consequences

Teacher stress—now at an all-time high—affects teachers' physical health.

The majority of teachers report feeling under great stress at least several days a week, a significant increase from 1985.[19] According to a national survey, 46 percent of teachers report high daily stress during the school year.[20] This is the highest rate of daily stress among all occupational groups, tied with nurses, also at 46 percent, and higher than physicians, at 45 percent. Less than one-third of K-12 teachers report currently feeling engaged in their job and engagement drops significantly during the first few years of teaching. Lack of engagement may be associated with low retention rates among new teachers.[21]

Teachers' psychological stress also affects their physical health. In a study of high school teachers, 46 percent of teachers were diagnosed with excessive daytime sleepiness and 51 percent with poor sleep quality, compromising health, quality of life, and teaching performance.[22] Chronic work stress and exhaustion among teachers is associated with negative changes in biological indicators of stress[23] and chronically stressed teachers show atypical daily patterns of physiological stress reactivity (cortisol).[24,25]

Elementary school teachers who have greater stress and show more symptoms of depression create classroom environments that are less conducive to learning.

Teacher stress is linked to poor teacher performance and poor student outcomes.

According to a longitudinal study, elementary school teachers who have greater stress and show more symptoms of depression create classroom environments that are less conducive to learning, which leads to poor academic performance among students. Students who began the school year with weaker math skills and had a teacher with more depressive symptoms had the lowest rate of achievement.[26] Teachers who report greater burnout early in the school year have classrooms with more behavior problems. When teachers are highly stressed, children show lower levels of both social adjustment and academic performance.[27] Most strikingly, a survey of over 78,000 students in grades 5-12 in 160 schools showed that higher teacher engagement in their jobs predicted higher student engagement, which in turn predicted higher student achievement outcomes.[28,29]

Teacher turnover leads to instability and lower effectiveness in U.S. schools.

Between 1988 and 2008, 41 percent of teachers left the profession. While this number includes teachers who retired, research estimates that between 23 percent and 42 percent of teachers stop teaching within their first five years.[30,31,32] Reasons cited for leaving include job dissatisfaction related to poor working conditions, low salary, and student behavior problems, as well as lack

of classroom resources, input to school-wide decision making, and supportive school leadership.[33] This high teacher turnover leads to even more negative consequences within our educational system:

- **Student achievement declines.** In a study of New York City fourth- and fifth-grade students, higher teacher turnover had a significant negative effect on both math and language arts achievement. Turnover was particularly harmful to lower-performing students.[34] In contrast, research shows that additional years of teaching experience at the same grade level has a direct positive impact on student achievement.[35]

- **U.S. schools lose more than $7 billion each year.** There is a substantial loss of investments made in training new teachers when nearly half leave within five years. The National Commission on Teaching and America's Future estimates that public school teacher turnover costs more than $7.3 billion per year.[36] The cost per teacher is estimated from over $4,000 in rural areas to over $17,000 in urban districts.

- **Inequity in education access is increased.** Because turnover is most likely to occur in poorly performing schools, it leads to long-term destabilization of low-income neighborhood schools which lose continuity in relationships between teachers, students, parents and community.[37]

Policies and Programs Show Promise for Reducing Teacher Stress and Its Consequences

The findings above support the need to reduce stress and improve teacher well-being and performance. There are three broad types of intervention approaches: 1) Organizational Interventions; 2) Organization-Individual Interface Interventions; and 3) Individual Interventions. The following are programs or policies that have shown promise in reducing teacher stress and promoting their social-emotional competencies, well-being, health and performance.

Organizational Interventions

Organizational interventions are directed at changing the organization's culture and work practices. They involve promoting a participatory environment, open communication, supervisor/peer support, job redesign (e.g. reducing workload), training, worker health policies, etc.[38] The goal of an organizational intervention is to prevent stress from occurring, which is considered to be more effective than individual interventions alone. There is some evidence to support organizational-level interventions in other service professions, with documented benefits in reducing stress, increasing job satisfaction and reducing turnover.[39]

High Teacher Turnover:

Hurts student scores

Turnover hurts students' math and language arts scores, particularly for lower-performing students.

Disrupts relationships between schools and communities

Turnover happens most in poorly performing schools, leading to destabilization of low-income neighborhood schools.

Costs schools $7.3 billion each year

Rapid turnover costs over $4,000 per year in rural areas and over $17,000 per year in urban districts.

Although many initiatives, including teacher union collective bargaining agreements, legislation, and worksite labor-management health and safety committees, have been initiated, there is no research to demonstrate their effectiveness in improving teacher well-being and performance.

Organization-Individual Interface Interventions

This approach typically focuses on building co-worker social support and skills training for teachers and students. There are three proven programs that fall into this category.

- **Teacher Induction and Mentoring Programs Can Help Teachers and Students Succeed.** Given the high rate of teacher attrition in the first years of teaching, programs that seek to provide technical and social support to beginning teachers through orientation, guidance, and mentoring programs have proliferated.[40,41,42] Common activities include mentoring from teachers in the same subject area, regular opportunities for supportive communication with administrators, seminars and workshops, time management, and team building. A review of well-designed induction studies concluded that supports for beginning teachers led to: (i) higher satisfaction, commitment, or retention, (ii) better classroom instructional practices, and (iii) higher student scores on academic achievement tests.[43]

  Research to date shows that teachers who had a mentor in their subject area, had common planning time in their subject area and grade level, and had regular communications with their principal had better retention rates.[44,45,46] More comprehensive, and longer, induction supports were even more advantageous,[47,48] and may be particularly effective in retaining teachers in high-need districts.[49,50] At present, only three states require schools to provide induction supports to new teachers for more than one year, require teachers to complete an induction program for professional licensure, and provide dedicated state induction funding.[51]

- **School Workplace Wellness Promotion Programs and Policies Can Save Schools Money and Help Improve Teachers' Health.** One systems-wide approach to addressing teacher health and well-being is the implementation of workplace wellness programs. Such programs target lifestyle changes to reduce health risk behaviors and costs. Data shows that the percentage of schools with health promotion practices has increased between 2000 and 2014, including a twofold increase in offerings focused on health risk appraisals (21.2% in 2014), nutrition (31.4% in 2014), and weight management (30.4% in 2014), and a 10% increase in physical activity programs (50% in 2014). Notably, only 26 percent of schools offered stress management services, a decline of 10 percent since 2000.[52]

  There is early evidence of the benefits of workplace wellness programs in schools. In one school district a workplace wellness program, initiated in 2011-12, incorporated administrative planning, behavior change campaigns, and insurance incentives (e.g., lower co-pay and deductibles). Over half of

Programs that Help Relieve Teacher Stress

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Mindfulness programs can help teachers manage emotions and find joy in teaching.

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Mentoring programs can help new teachers reduce stress and raise retention which improves classroom instruction.

Image: © iStock Steve Debenport

Workplace wellness programs can improve teacher health, lower medical costs, and reduce absenteeism.

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Social and emotional learning programs for students can reduce teacher burnout and increase their satisfaction

employees participated, and among those who did, 46.0 percent had lowered body mass index, 34.7 percent lowered systolic blood pressure, 65.6 percent lowered blood glucose, and 38.6 percent lowered total cholesterol.[53] A cost analysis over two additional years found average medical claims payments were lower for teachers in the wellness program. The cost savings from the program was $3,612,402, or a savings of $3.60 for every dollar spent.[54] Another study of a district-wide wellness program found no differences between participants and nonparticipants in health care costs, but program participation led to lower absenteeism, resulting in savings of $15.60 for each dollar spent.[55]

- **Programs Focused on Student Behavior and Social and Emotional Learning (SEL) Benefit Teachers and Support Classroom Learning.** While programs to improve student behavior and student SEL have yielded positive outcomes for students,[56] evidence suggests they may also improve teacher functioning. In a randomized control trial (RCT) of 350 K-5 teachers across 27 urban schools, teachers trained to implement a classroom management program with an SEL curriculum reported greater efficacy for managing student behavior and higher levels of personal accomplishment compared to teachers in control schools.[57] These findings support other studies showing that teachers trained and supported in implementing SEL programs have lower job-related anxiety and depression,[58] higher quality classroom interactions with students,[59,60] greater teacher engagement,[61] and greater perceived job control.[62]

  Teachers in schools implementing multi-tiered approaches such as school-wide positive behavioral interventions and supports (PBIS) also reported lower levels of job-related burnout and higher efficacy.[63] Teachers receiving coaching focused on improving the quality of their interactions with students have led to a significant increase in student achievement,[64] suggesting that systematic and sustained coaching supports may be a critical component of SEL interventions for teachers.

Individual Interventions

Interventions at the individual level are the most common approaches to deal with stress. Such interventions may include psychological relaxation or meditation, cognitive behavioral approaches to improve active coping skills, and goal-setting.

- **Teachers Who Participate in Stress Management Programs Report Mental and Physical Health Benefits.** Mindfulness and stress management-based professional development programs foster teachers' ability to focus their awareness in the present moment in a non-reactive manner, connecting to their own experience and to others with ease, patience, and kindness.[68,69,70] Skills are taught using sequenced exercises such as body scans, breath awareness, meditative movement, greater emotional awareness, and the cultivation of positive emotions towards self and others. Well-designed studies have shown psychological and physiological benefits as well as improvements in quality of teaching.[71,72]

The Benefits of Workplace Wellness Programs in Schools

$3.60 is the cost savings from every dollar spent on wellness programs

Among wellness program participants:

46% reduced body mass index

34.7% lowered systolic blood pressure

65.6% lowered blood glucose

38.6% lowered total cholesterol

What Is Mindfulness?

Mindfulness is a state of active, open attention to the present moment. Being mindful means observing one's thoughts and feelings from a distance, without judging them as good or bad.[65,66] It has been related to reducing teacher burnout, negative affect, sleep-related impairment, and daily physical symptoms.[67]

In the largest study to date, 224 K-5 teachers from 36 urban public schools were randomly assigned to mindfulness training or control. Those who received mindfulness training showed improved levels of mindfulness and emotion regulation skills and lower levels of personal distress.[73] They also showed significant improvements in their observed instruction. Other studies with the same or similar intervention models have shown positive effects on occupational stress and burnout,[74,75] and in a study of special needs teachers, mindfulness training led to lower stress and anxiety and greater personal growth, empathy, and forgiveness.[76] Although few studies have assessed teachers' physiological changes, findings suggest mindfulness practices can lead to reductions in physiological stress, including lower levels of cortisol and blood pressure,[77,78,79] and positive effects on sleep quality.[80,81,82]

Future Research Needs

There is a need for greater innovation in developing and assessing the effectiveness of policies and programs to reduce teacher stress and improve well-being. In particular, there is a need for further testing of the efficacy of organizational strategies to improve "work processes" such as reducing excessive work demands, increasing job control, creating more collaborative leadership, and building more effective school cultures.

While supporting teacher mindfulness and stress management is one avenue, teacher work demands are high and have been increasing, and policy and organizational level interventions need to address this issue.[83] The impacts of teacher stress are particularly high in disadvantaged schools, making it a fundamental issue for reducing inequity in education.

Basic research on teacher health and wellness is needed and should include the use of objective measures of teacher's stress and time use.[84] In addition, there is a need to examine the consequences of teacher stress for teacher health care costs.

Conclusion and Implications

There is an urgent need to address our nation's teacher crisis. Teachers have a critical role in children's lives and teaching has become one of the most stressful occupations, with alarmingly high rates of job dissatisfaction and turnover. This escalating crisis is affecting students' educational outcomes, impacting teachers' health, and costing U.S. schools billions of dollars each year.

There are several main factors that contribute to teacher stress.

- **School Organization.** Principal leadership, particularly in creating a collegial, supportive school environment, can support teacher engagement and effectiveness. The levels of teacher stress are in turn affected by school district, state, and federal policies that may support or detract from creating a healthy school environment and effective teacher functioning.

- **Job Demands.** Surprisingly, most teacher education and professional development programs currently do not prepare teachers for these kinds of job demands.[85]

- **Work Resources.** Currently, many teachers have a limited sense of autonomy and decision-making power.

- **Social and Emotional Competence.** Finally, few teachers are offered professional development to nurture their own social and emotional competence.

Fortunately, some policies and programs have proven effective in supporting teachers' well-being, improving student outcomes, and even saving schools money. These include:

- **Mentoring and induction programs** for beginning teachers, can improve teacher satisfaction and retention, as well as student academic achievement.

- **Workplace wellness programs** have resulted in reduced health risk, health care costs, and absenteeism among teachers. Policymakers should consider the Total Worker Health approach advanced by the National Institute of Occupational Safety and Health (NIOSH, CDC). This holistic approach combines policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury prevention and lifestyle promotion efforts to advance teacher well-being.[86]

- **SEL programs** improve behavior and promote SEL among students, which also helps to reduce teacher stress and create more positive engagement with students.

- **Mindfulness/stress management programs** that help teachers develop coping and awareness skills and lead to reduced anxiety, depression, and improved health.

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