



INFORMATION CAPSULE

Research Services

Vol. 1003
September 2010

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Teacher Burnout

At a Glance

Burnout is a state of physical, mental, and emotional exhaustion resulting from chronic stress. It is characterized by feelings of alienation, indifference, and low self-regard, a loss of interest in work, and an inability to perform one's day-to-day job duties. Burnout within the teaching profession has been recognized as a serious problem. Studies indicate that teacher burnout has a negative effect on student motivation and learning. It has been estimated that between five and 30 percent of teachers show distinct symptoms of burnout at any given time. Teacher burnout costs school districts billions of dollars annually through absenteeism, disability claims, and high rates of turnover.

Stressful environments can lead to teacher burnout and personal factors, such as levels of self-efficacy and self-esteem and the existence of strong social support networks, can influence the likelihood that teachers will develop burnout. Most researchers believe burnout is the result of an interaction between school conditions and teachers' personality characteristics, but studies have produced contradictory findings regarding which variables play the most important role in the development of burnout. Strong feelings of self-efficacy in particular appear to act as a buffer between stressful school environments and burnout.

To the extent possible, district and school administrators have a responsibility to minimize stressors in the school environment. Activities schools can engage in to eliminate teacher burnout and reduce work-related stress include stress management workshops, peer support groups, and the provision of feedback, recognition, and supportive leadership. A list of strategies to help teachers manage chronic stress and avoid burnout is provided in this report. At the local level, results from administration of Miami-Dade County Public Schools' 2009-10 School Climate Survey indicated that staff morale and principal support were perceived as high by the majority of staff, but a large number of staff reported that they were frequently overloaded and overwhelmed in their jobs.

Burnout is a state of physical, mental, and emotional exhaustion resulting from chronic stress. It is characterized by feelings of alienation, indifference, and low self-regard, a loss of interest in work, and an inability to perform one's day-to-day job duties. The term "burnout" was first coined in 1974 by Herbert Freudenberger. He defined burnout as "the extinction of motivation or incentive, especially when one's devotion to a cause or relationship fails to produce the desired results" (in Scott, 2006). Burnout doesn't occur overnight. It is a cumulative process, beginning with small warning signals that, when ignored, can turn into an intense dread of going to work. Burnout is not a permanent condition. As working conditions change or as individuals develop coping skills or find supportive work environments, burnout often dissipates (Noushad, 2008; Hanson, 2006; Hutman et al., 2005; Potter, 2005; Dworkin, 2001; Leithwood et al., 2001).

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The literature frequently uses the terms burnout and stress interchangeably, but it is important to emphasize that they are different concepts and that stress does not automatically lead to burnout. Stress can be positive or negative and a certain amount of stress is needed to motivate action; however, burnout is distinctly and exclusively negative. Burnout is most often the result not of stress alone but of unmediated stress, or of being stressed and having no "out," no buffers, no support system, and no adequate rewards (Landeché, 2009; Noushad, 2008; Hanson, 2006; Scott, 2006; Hutman et al., 2005; Evers et al., 2000; Farber, 1984).

Maslach and Jackson (1982) initiated most of the early research into the burnout phenomenon. Christina Maslach (cited in Center for Mental Health in Schools at UCLA, 2002) stated: "Burnout is used to describe a syndrome that goes beyond physical fatigue from overwork. Stress and emotional exhaustion are part of it, but the hallmark of burnout is the distancing that goes on in response to the overload." Maslach and Jackson (1982) described burnout as a three-dimensional construct and this conceptualization has been widely accepted by burnout researchers (Noushad, 2008; Kokkinos, 2007; Hakanen et al., 2006; Hanson, 2006; Omdahl & Fritz, 2006; Cheek et al., 2003; Leithwood et al., 2001). The three dimensions of burnout are:

- Emotional exhaustion - depletion of emotional resources and the feeling that one has nothing left to give.
- Depersonalization - also referred to as cynicism; development of negative and cynical attitudes and the distancing of oneself from others, usually the individuals who should be the recipients of the care or service.
- Feelings of low personal accomplishment - general dissatisfaction with oneself, one's professional abilities, and one's effectiveness. Individuals suffering from reduced personal accomplishment have low self-confidence and feelings of inadequacy.

Researchers agree that although these three dimensions of burnout are connected, they are independent components of the syndrome, often appearing at different times and at different degrees of severity (Kokkinos, 2007; Hutman et al., 2005; Evers et al., 2000). Maslach and Jackson (1982) proposed that the three components emerge sequentially, with emotional exhaustion as the first phase, depersonalization as the second phase, and feelings of reduced personal accomplishment as the third phase. The sequence in which these three dimensions appear was confirmed in subsequent burnout studies (Noushad, 2008; Omdahl and Fritz, 2006).

Researchers have found that burnout is most often associated with situations in which employees feel overworked; underappreciated; confused about expectations and priorities; concerned about job security; overcommitted with responsibilities; and resentful about duties that are not commensurate with pay (Scott, 2010; Hutman et al., 2005; The University of Melbourne, n.d.). Although burnout is common in many professions, it is much more prevalent in the helping professions. In addition to the stress that arises from routine job duties, teachers, counselors, doctors, nurses, and police officers have responsibility for the well-being of others. This extra responsibility, combined with limited resources, long hours, and poor working conditions, can lead to chronic stress and eventually burnout (Hutman et al., 2005; Dworkin, 1987). Burnout within the teaching profession in particular has been recognized as a serious problem (Schwinn, 2007; Hakanen et al., 2006; Goddard & O'Brien, 2004; Haberman, 2004; Bivona, 2002; Lens & Neves de Jesus, 1999; Weisberg & Sagie, 1999). Teachers experiencing burnout believe they have no impact on students' lives or education and see no reason to continue caring or expending any serious effort in their jobs (Özkanal & Arikan, 2010; Schwinn, 2007; Haberman, 2004).

It has been estimated that between five and 30 percent of teachers show distinct symptoms of burnout at any given time (Hakanen et al., 2006; Cheek et al., 2003; Farber, 2000; Dworkin, 1987). Some teachers leave the profession because they can't cope with the high levels of stress while others burn out but stay

in the profession. Those who remain either learn coping skills that enable them to adapt to the stress associated with their work or count the days until weekends and ultimately, retirement (Bivona, 2002; Dworkin, 2001; Evers et al., 2000).

Symptoms of Burnout

Individuals suffering from burnout typically exhibit a variety of psychological, physical, and behavioral symptoms. The most common symptoms are summarized below.

- **Psychological Symptoms.** Occasional feelings of frustration, anger, dissatisfaction, and anxiety are normal parts of any job, but people caught in the burnout cycle experience these negative emotions on a continual basis. Burned out individuals feel helpless, depressed, resentful, and meaningless. Most burnout victims no longer find their jobs interesting or enjoyable and don't even care about doing a good job. They usually dread going to work in the morning (Texas Medical Association, 2009; Noushad, 2008; Zhang & Sapp, 2008; Hanson, 2006; Omdahl & Fritz, 2006; Hutman et al., 2005; Potter, 2005; Wood & McCarthy, 2002; Evers et al., 2000).
- **Physical Symptoms.** Burnout is generally characterized by some degree of physical exhaustion or a general feeling of being tired and rundown. Physical problems associated with burnout include headaches, digestive disorders, high blood pressure, heart palpitations, and insomnia (American Psychological Association, 2010a; Texas Medical Association, 2009; Noushad, 2008; Hanson, 2006; Omdahl & Fritz, 2006; Potter, 2005; Wood & McCarthy, 2002; Evers et al., 2000). Researchers have reported that even a moderate amount of stress puts workers at risk for hypertension, cardiovascular disease, and even diabetes (Keita, 2010; Baker, 2009; Godsey et al., 2007; Melamed et al., 2006).
- **Behavioral Symptoms.** Burnout is often manifested in behavioral reactions such as tardiness, absenteeism, poor job performance, and lack of interest and commitment. Teachers who are burned out often distance themselves from students physically and emotionally, feel less sympathetic toward students, teach class less enthusiastically and creatively, and perform tasks by rote. They tend to have a lower tolerance for classroom disruptions and withdraw from social interactions with students and colleagues (Texas Medical Association, 2009; Zhang & Sapp, 2008; Potter, 2005; Wood & McCarthy, 2002; Leithwood et al., 2001; Evers, 2000; Brouwers & Tomic, 1999). Burned out individuals often drink more alcohol or caffeine, adopt unhealthy eating habits, and use drugs such as sleeping pills, tranquilizers, and mood elevators (Omdahl & Fritz, 2006; Potter, 2005).

Consequences of Burnout

Studies suggest that teacher stress and burnout cost school districts billions of dollars annually through absenteeism, disability claims, and high rates of teacher turnover (Durr, 2008; Schwinn, 2007; Omdahl & Fritz, 2006; Alliance for Education, 2004; Haberman, 2004; Wiley, 2000; Evers et al., 2000; Brown & Uehara, 1999). Researchers have consistently found that burnout leads to higher rates of teacher turnover and absenteeism (Omdahl & Fritz, 2006; Toppinen-Tanner et al., 2005; Haberman, 2004; Evers et al., 2000; Brown & Uehara, 1999). Mental Health America (2010) reported that one in four people say they've missed work due to work-related stress.

Stress levels are directly linked to physical well-being. Seventy-five percent of visits to doctors' offices concern stress-related ailments. Chronic stress can double the risk of heart attack and increases the likelihood of an individual developing serious illnesses such as diabetes and cancer (Mental Health America, 2010).

Individuals experiencing burnout exhibit decreased productivity and performance. They have trouble meeting deadlines, concentrating, and making decisions (Mental Health America, 2010). Most importantly,

studies have found that teacher burnout has a negative effect on student motivation and learning (Durr, 2008; Zhang & Sapp, 2008; Haberman, 2004). Landeche (2009) noted that one of the most harmful consequences of burnout is the lack of emotional support teachers are able to offer their students.

Factors that Most Frequently Lead to Burnout

The likelihood that teachers will experience burnout is determined by both the environment in which they work and individual characteristics, such as personality traits and demographic factors, that may make them more prone to burnout. A review of both sets of factors is provided below.

Environmental Factors

There are many different environmental factors that can lead to teacher burnout, including poor working conditions, excessive job demands, lack of recognition and feedback, disruptive students, and lack of administrative and collegial support.

- **Poor Working Conditions.** Working conditions that contribute to burnout include inadequate staff, materials, equipment, facilities, or funding; overcrowded classrooms; and fear of violence (Landeche, 2009; Hakanen et al., 2006; Taylor et al., 2005; Camilli, 2004; Howard & Johnson, 2004; Abel & Sewell, 1999; Farber, 1998; Terry, 1997; Hammond & Onikama, 1996).
- **Excessive job demands.** Research indicates that burnout is more likely when unrealistic and excessive demands are made on teachers' time and energy and when they are under constant and strong pressure to produce, perform, and meet deadlines (Landeche, 2009; Hakanen et al., 2006; Kilgallon, 2006; Taylor et al., 2005; Howard & Johnson, 2004; Kyriacou, 2001; Leithwood et al., 2001; Maslach et al., 2001; Wiley, 2000; Corey, 1996). Several researchers have noted that teachers are under increasing pressure to expand their roles beyond education. Not only are they expected to teach specific content, but they are required to provide enrichment activities, encourage students' moral and ethical development, act as social workers, attend committee meetings, raise funds, implement new technology, meet with parents, participate in community activities, and attend conferences to develop professionally (Taylor et al., 2005; Lens & Neves de Jesus, 1999; Lumsden, 1998; Jorde, 1981).
- **Profusion of school reforms.** Studies suggest that teachers in schools undergoing comprehensive reform are more likely to experience symptoms of burnout (Hanson, 2006; Howard & Johnson, 2004; Cheek et al., 2003; Bivona, 2002; Dworkin, 2001; Kyriacou, 2001; Leithwood et al., 2001; Farber & Ascher, 1991). Researchers have explained that most educational reforms are imposed on schools and teachers from the top down, with little justification given for new programs and policies. Many teachers therefore feel excluded from the decision-making process, resulting in feelings of powerlessness, helplessness, and discouragement (Lens & Neves de Jesus, 1999; Farber, 1998).
- **Increased accountability pressure.** Several researchers have found that accountability demands and pressures lead to increased teacher stress and burnout (Landeche, 2009; Hanson, 2006; Haberman, 2004; Sunderman et al., 2004; Pedulla et al., 2003; Center for Mental Health in Schools at UCLA, 2002; Taylor et al., 2002; Brownell, 1997). Elementary school teachers and teachers of high-stakes subject areas at the middle and senior high school levels report significantly greater feelings of accountability- and test-related pressure (Hanson, 2006; Pedulla et al., 2003).
- **Lack of empowerment and autonomy.** Studies indicate that the ability to influence decisions reduces the likelihood of burnout; however, many teachers work in environments in which they believe they have little or no control over long-range outcomes. Research has found that teachers are more likely to experience burnout when they believe they have little or no control over curriculum and instruction

or their work environment and when experimentation and innovation are discouraged (Hutman et al., 2005; Pearson & Moomaw, 2005; Goddard et al., 2004; Center for Mental Health in Schools at UCLA, 2002; Leithwood et al., 2001; Maslach et al., 2001; Brownell, 1997; Corey, 1996; Hammond & Onikama, 1996).

- **Lack of training.** Burnout is more likely to occur when teachers are assigned to a classroom without appropriate training. Stress and feelings of personal inadequacy increase when teachers feel incompetent or poorly prepared or when they are required to teach outside of their areas of expertise. Conversely, studies have found that teachers tend to exhibit lower levels of stress when their skills and abilities match the demands and requirements of the job (Haberman, 2004; Howard & Johnson, 2004; Kyriacou, 2001; Leithwood et al., 2001; Evers et al., 2000; Lens & Neves de Jesus, 1999; Bunce & West, 1996).
- **Lack of recognition and feedback.** Teachers appear to be less likely to experience burnout when they receive recognition for their efforts and achievement (Haberman, 2004; Howard & Johnson, 2004; Leithwood et al., 2001; Sinclair, 1992). Corey (1996) reported that one cause of burnout is "giving a great deal personally and not getting back much in the way of appreciation or positive responses." Furthermore, lack of feedback and clear objective performance standards have been found to increase teachers' stress levels (Maslach et al., 2001; Jorde, 1991; Cedoline, 1982).
- **Lack of administrative support.** Research indicates that teacher burnout is more likely to occur within school environments characterized by low levels of principal support (Timms et al., 2007; Taylor et al., 2005; Haberman, 2004; Howard & Johnson, 2004; Bivona, 2002; Labone, 2002; Lens & Neves de Jesus, 1999). Principal practices that have been found to be associated with teacher burnout include authoritarian leadership styles, lack of trust in teachers' professional adequacy, inconsistent behavior, lack of follow-up, favoritism, and harassment (Leithwood et al., 2001; Corey, 1996).
- **Lack of collegial support.** Studies have shown that teachers who work in schools where they have opportunities to share professional experiences, receive support from colleagues, and don't feel professionally isolated are less likely to be burned out (Howard & Johnson, 2004; Labone, 2002; Center for Mental Health in Schools at UCLA, 2002; Leithwood et al., 2001; Maslach et al., 2001; Lens & Neves de Jesus, 1999; Corey, 1996).
- **Substandard pay coupled with limited opportunities for promotion.** Researchers have found that insufficient pay and benefits and limited advancement opportunities contribute to teacher burnout. Many teachers don't feel they are adequately reimbursed for their efforts and some complain about their horizontal careers. Most teachers can not be promoted since only a limited number of school and district administrative positions are available (Taylor et al., 2005; Haberman, 2004; Lens & Neves de Jesus, 1999; Jorde, 1991; Farber, 1984).
- **Disruptive student behavior in the classroom.** Studies suggest that students' disruptive behavior is a frequent cause of teacher burnout. Additional student-related sources of burnout include lack of motivation and respect for teachers; lack of discipline; and miscommunications between teachers and students of different cultural or economic backgrounds (Zhang & Sapp, 2008; Hanson, 2006; Taylor et al., 2005; Haberman, 2004; Howard & Johnson, 2004; Labone, 2002; Kyriacou, 2001; Evers et al., 2000; Brouwers & Tomic, 1999; Lens & Neves de Jesus, 1999; Lumsden, 1998; Corey, 1996).
- **Lack of parent and community support.** Several researchers have found that declining parent and community respect for public education has devalued the teaching profession and led to increased rates of burnout (Landeche, 2009; Cano-García et al., 2004; Haberman, 2004; Howard & Johnson, 2004; Bivona, 2002; Dworkin, 2001; Leithwood et al., 2001; Scott et al., 2001). Farber (1998) concluded that "the chronic undervaluation of work involving the care of children" and "the continual denigration of work . . . serve to promote the conditions that make teachers feel overworked and underappreciated."

- **Demanding parents.** Researchers have also found that demanding parents can be a source of teacher burnout (Lens & Neves de Jesus, 1999; Farber, 1984). A study conducted in Germany (cited in Parker-Pope, 2008) concluded that emotional fatigue resulting from interacting with overly demanding parents was the main reason reported by teachers for losing their motivation to teach and eventually leaving the profession.

Individual Characteristics

Teachers' reactions to their working conditions are effected by individual characteristics such as personality traits and demographic factors. These individual characteristics determine how teachers perceive and respond to their environment and if situational variables become a cause of burnout or the basis for the development of effective coping strategies (Omdahl & Fritz, 2006; Haberman, 2004; Lens & Neves de Jesus, 1999).

- **Personality traits.** Research has demonstrated that teachers with high levels of self-esteem, a positive self-concept, and an internal locus of control (the belief that one is in control of the environment) are more resistant to burnout (Labone, 2002; Leithwood et al., 2001; Farber, 1998). Conversely, studies have identified several traits associated with high vulnerability to burnout, including being overly idealistic, passionate, and dedicated, having a high need for self-affirmation, and over-identifying with others (Schwinn, 2007; Hutman, 2005; Gold, 2001; Farber, 1998). Additional studies have found that high levels of neuroticism and introversion are associated with burnout (Kokkinos, 2007; Cano-García et al., 2004; Goddard et al., 2004; Maslach et al., 2001; Cedoline, 1982). Those with Type A personalities (extreme competitiveness, time-pressured lifestyles, hostility, and an excessive need for control) are also more likely to experience burnout (Leithwood et al., 2001; Maslach et al., 2001; Terry, 1997).

Researchers have unanimously concluded that low self-efficacy intensifies feelings of burnout, while high self-efficacy reduces feelings of burnout. Self-efficacy refers to teachers' beliefs about their ability to succeed in producing desired outcomes (Howard & Johnson, 2004; Labone, 2002; Leithwood et al., 2001; Evers et al., 2000; Brouwers & Tomic, 1999). Durr (2008) found that teachers with high levels of self-efficacy were less likely to experience burnout, regardless of the level of administrative support they received at their schools. He also reported that teachers with a greater belief in their ability to manage the classroom and engage students were significantly less likely to suffer from burnout. [It should be noted that Labone's (2002) study of Australian teachers reported contrasting findings. Lack of support from school leadership was found to contribute more to burnout than teachers' reported feelings of self-efficacy.]

- **Support from family and friends.** Studies indicate that individuals who have diverse, caring networks of family and friends demonstrate fewer symptoms of burnout. Family and friends help teachers maintain perspective and generate ideas for resolving problems (Howard & Johnson, 2004; Cheek et al., 2003; Maslach et al., 2001; Terry, 1997). Studies conducted on the relationship between marital status and the likelihood of becoming burned out have produced mixed findings (Durr, 2008; Cheek et al., 2003; Maslach et al., 2001; Bachelor & Gold, 1988; Farber, 1984; Cedoline, 1982).
- **Gender.** Most researchers have found that male teachers are more prone to burnout (Haberman, 2004; Labone, 2002; Leithwood et al., 2001; Maslach et al., 2001; Farber, 1998). However, Timms and colleagues (2006) concluded that female teachers were more likely to experience burnout, and several other researchers found no differences in burnout rates between male and female teachers (Durr, 2008; Bachelor & Gold, 1988; Farber, 1984).
- **Age.** Most studies have concluded that younger teachers are more likely to experience burnout than older teachers (Durr, 2008; Hanson, 2006; Haberman, 2004; Maslach et al., 2001; Farber, 1998;

Bachelor & Gold, 1988). A few studies, however, have reported that teacher burnout increases with age (Kilgallon, 2006; Leithwood et al., 2001) or that there is no significant relationship between age and burnout (Zabel & Zabel, 2001; Berg, 1994; Hittner, 1981).

- **Teaching experience.** Studies conducted on the relationship between years of teaching experience and burnout have produced mixed findings. Some researchers have found that less experienced teachers are more likely to become burned out (Landeche, 2009; Durr, 2008; Haberman, 2004; Bivona, 2002; Maslach et al., 2001). In contrast, Graham (1999) reported that teachers with more years of experience tended to show greater signs of burnout than their less experienced colleagues. Several studies have found that burnout is highest among mid-career teachers and lower among teachers with very little or extensive teaching experience (Timms et al., 2006; Leithwood et al., 2001; Friedman, 1991). Finally, some studies have not found any significant relationship between the number of years a teacher has been in the profession and burnout rates (Camilli, 2004; Zabel & Zabel, 2001; Berg, 1994; Brissie et al., 1988; Hall et al., 1988; Farber, 1984).
- **School level.** Most researchers agree that middle and senior high school teachers are more likely to experience burnout than elementary school teachers (Murray, 2007; Hanson, 2006; Camilli, 2004; Haberman, 2004; Labone, 2002; Hall et al., 1988; Farber, 1984).

Studies Identifying the Best Predictors of Burnout

Studies have been conducted to determine which teachers are most likely to suffer from burnout and how they differ from their colleagues who do not fall victim to burnout. Although most researchers have found that burnout is the result of an interaction between situational variables and personality characteristics, studies have produced contradictory findings regarding which variables play the most important role in the development of burnout. Some studies have reported that environmental factors are better predictors of burnout than personal characteristics. Others, however, have concluded that personal characteristics contribute more to explanations of burnout than situational factors (Kokkinos, 2007; Cano-García et al., 2004; Lens & Neves de Jesus, 1999).

- Leithwood and colleagues' (2001) study of 331 Toronto area teachers reported that three sets of variables explained 30 percent of the variation in teacher burnout: organizational factors, leadership factors, and personal factors. Organizational factors explained about one-half of the variation in burnout accounted for by the model; leadership factors explained approximately one-third; and personal factors explained about 17 percent. The researchers concluded that organizational and leadership factors were better predictors of burnout than personal factors.
- Similarly, Labone's (2002) study of 800 randomly selected Australian teachers found that while both self-efficacy (a personal characteristic) and leadership support (a situational variable) were related to teacher burnout, leadership support contributed more to burnout than self-efficacy. In other words, lack of leadership support induced feelings of burnout regardless of teachers' levels of self-efficacy.
- These results are in direct contrast with those of Byrne (1994), who reported that personal factors, particularly self-esteem, acted as "a critical and controlling factor in the predisposition of teachers to burnout" and that they function as "an essential mediator variable through which the effects of environment-based organizational factors filter."

Two studies that examined the factors most likely to lead to each of the three dimensions of burnout (emotional exhaustion, depersonalization, and feelings of low personal accomplishment) reached different conclusions.

- Kokkinos' (2007) study of 447 primary school teachers in Cyprus found that emotional exhaustion was predicted mainly by environmental stressors, depersonalization was predicted almost equally by environmental and personal characteristics, and feelings of personal accomplishment were predicted mostly by individual characteristics.
 - Two sources of situational stress - managing student behavior and time constraints - explained most of the variance in emotional exhaustion. However, personal characteristics also contributed to some of the variance. Teachers with the highest levels of emotional exhaustion were female and had more than 10 years of teaching experience. Neuroticism was also a significant predictor of emotional exhaustion.
 - Environmental factors and personal characteristics contributed almost equally to the prediction of depersonalization. Among the personal characteristics, conscientiousness was the most important predictor. Teachers with low personality inventory scores in conscientiousness demonstrated higher levels of depersonalization. High scores in neuroticism were also related to increased depersonalization. Among the situational variables, stress arising from maintaining order and discipline in the classroom was the strongest predictor of depersonalization, although lack of time was also a significant predictor.
 - Personal accomplishment was predicted mainly by personality characteristics. Teachers with higher personality inventory scores in conscientiousness and extroversion and lower scores in neuroticism were more likely to exhibit increased feelings of personal accomplishment (indicating that the teacher was not experiencing this dimension of burnout). Teachers with higher feelings of personal accomplishment also tended to have more than 10 years of teaching experience.
- In contrast to Kokkinos' (2007) findings, Cano-García and colleagues' (2004) study of 99 teachers at public and private schools in Spain found that a combination of personal and environmental variables significantly predicted scores in the emotional exhaustion and personal accomplishment dimensions of burnout. Depersonalization was best predicted by personal, rather than environmental, variables.
 - The best predictors of emotional exhaustion were high levels of neuroticism; a deficient relationship with school administration; lack of advancement opportunities; awareness of little professional prestige; seniority in one's teaching position; and having fewer students. [The finding that teachers with fewer students exhibited more symptoms of emotional exhaustion was contrary to expectations. The researchers hypothesized that this may have been because more difficult students were grouped in smaller classes.]
 - The best predictor of high scores on the personal accomplishment dimension of burnout (indicating that the teacher was not experiencing this dimension of burnout) was a profile of an agreeable teacher who worked at a private, rather than public, school, and assigned importance to his or her relationships with students.
 - Lack of agreeableness was the best predictor of high levels of depersonalization.

Burnout Interventions

Intervention programs either treat individuals for burnout after it has occurred or prevent burnout from occurring in the first place. Researchers agree that it is easier to prevent burnout than it is to reverse it once it has developed (Schwinn, 2007; Cheek et al., 2003; Wood & McCarthy, 2002; Maslach et al., 2001; Evers et al., 2000).

Burnout interventions tend to use techniques similar to those used for most stress-related disorders, such as relaxation training, meditation, and exercise; time management skills; and strengthening of coping skills. Experts have pointed out that these types of interventions may help individuals alleviate emotional exhaustion; however, they don't treat the other two dimensions of burnout, depersonalization and feelings of low personal accomplishment, because they don't address the perception of inconsequentiality that is an essential aspect of burnout. Furthermore, since situational factors appear to play a key role in burnout, most researchers have concluded that interventions are not effective when they target only the development of individual coping skills. Researchers have therefore suggested that burnout interventions focus both on changing the school environment to reduce chronic stressors and strengthening teachers' resources for coping with stress (Omdahl & Fritz, 2006; Center for Mental Health in Schools at UCLA, 2002; Wood & McCarthy, 2002; Leithwood et al., 2001; Maslach et al., 2001; Wiley, 2000; Farber, 1998; van Dierendonck et al., 1998; Brownell, 1997).

Most researchers agree that interventions targeted to the individual are more effective than group interventions. First, individual interventions can be tailored to the personality and unique working conditions of each teacher. Second, individual interventions are able to address the specific dimensions or severity of burnout each teacher is experiencing. Third, the pace of individual interventions can be adapted to each teacher and scheduled without disruption to his or her daily routine. Finally, individual interventions protect teachers' privacy (Maslach et al., 2001; Evers et al., 2000; Farber, 1998).

Research findings on the effectiveness of burnout interventions have been mixed, but the majority of studies have shown positive effects (Schwinn, 2007; Brown & Uehara, 1999). In some cases, a reduction in emotional exhaustion was reported, but the other two components of burnout, depersonalization and personal accomplishment, did not appear to benefit from interventions (Schwinn, 2007; Maslach et al., 2001; Evers et al., 2000; van Dierendonck et al., 1998; Cooley & Yovanoff, 1996).

Brown and Uehara (1999) reported on two studies that examined the long-term impact of burnout interventions. Findings from both studies indicated that the programs were successful but that initial improvements faded one year after program completion. Brown and Uehara concluded that these studies illustrate the importance of developing and implementing intervention techniques that are capable of maintaining program impact over an extended period of time.

Activities Schools Can Engage in to Prevent or Ameliorate Burnout

To the extent possible, district and school administrators have a responsibility to minimize stressors in the school environment (Brownell, 1997); however, the Center for Mental Health in Schools at UCLA (2008) noted that most schools have no formal mechanisms for treating burnout. Following is a description of activities schools can engage in to eliminate teacher burnout and reduce their chronic work-related stress.

Pay attention to early warning signals. All school staff, including administrators and counselors, should be trained to identify the early symptoms of teacher burnout. In order to determine the sources of burnout, school administrators should conduct exit interviews with departing employees, be open to receiving employee complaints, be aware of the school's reputation within the community, monitor discussions on employee Intranets, and obtain feedback from 360-degree evaluations. It is important that opportunities be available for staff to express their opinions about workplace policies and procedures (Heathfield, 2009).

Stress Management. Stress management workshops teach participants effective strategies for dealing with burnout. Components of stress management training include:

- Stress awareness sessions provide teachers with information about the causes and symptoms of stress. Topics include recognizing stress-producing work situations, identifying physiological and

emotional responses to stress, and replacing self-defeating thoughts that serve to increase stress levels (Brown & Uehara, 1999; Cooley & Yovanoff, 1996).

- Teachers are taught physiological coping strategies, including muscle relaxation, focused meditation, and breathing techniques. They are provided with opportunities for physical exercise, such as brisk walks or aerobic activity, and information on good nutrition and health practices (Brown & Uehara, 1999; Cooley & Yovanoff, 1996; Hammond & Onikama, 1996; Sinclair, 1992).
- Participants are taught the cognitive skills needed to cope with job-related stressors and provided with opportunities to practice these skills. Cognitive coping strategies include identifying changeable aspects of the stressful situation; replacing self-defeating beliefs with more constructive and empowering ones; using problem-solving techniques instead of avoiding conflicts; and depersonalizing stressful incidents (Howard & Johnson, 2004; Maslach et al., 2001; Evers et al., 2000; Brown & Uehara, 1999; Cooley & Yovanoff, 1996). Omdahl and Fritz (2006) found that the use of two coping strategies was related to a significant reduction in all three dimensions of burnout: problem-solving (generating ideas about how to eliminate or reduce the stress and step-by-step plans that put selected options in place) and reappraisal (reframing the way one sees the stressor in order to understand how it may actually be beneficial or growth evoking).

Time management. Time management workshops help teachers cope with one of the major sources of work-related stress - time constraints. Teachers learn to keep track of how they spend their time using "to do" lists, weekly schedules, and monthly planning calendars (Kokkinos, 2007; Brown & Uehara, 1999; Hammond & Onikama, 1996).

Professional development. Studies suggest that professional development can be an effective way to combat burnout. Participation in activities that promote job engagement, self-efficacy, and perceived career success appears to be key in preventing job-related burnout (Kokkinos, 2007; Kilgallon, 2006; Lens & Neves de Jesus, 1999). Types of professional development activities that can prevent or reduce teacher burnout include:

- Regular mentoring and networking create a sense of accomplishment and a more fully developed professional identify for teachers (Hanson, 2006; Bivona, 2002; Center for Mental Health in Schools at UCLA, 2002; Wood & McCarthy, 2002; Leithwood et al., 2001).
- Professional growth opportunities, such as conferences, workshops on educational topics, and career planning and development programs, help teachers clarify their professional goals, increase their sense of empowerment, and provide the opportunity to gain greater knowledge about the teaching field, the professional community, and educational policies (Bivona, 2002; Leithwood et al., 2001; Wiley, 2000; Terry, 1997).

Peer support groups. Research has shown that burnout rates are lower when teachers actively express, analyze, and share personal feelings with colleagues. Support groups have been found to reduce teachers' feelings of isolation, promote collegial support, and renew feelings of professionalism and commitment to teaching (Terry, 1997; Farber, 1984). Peer support groups provide practical advice and information from teachers in similar predicaments; show teachers that their problems are not unique; and help them work out solutions to shared problems. Groups assume various forms, from the highly structured daily meeting format to more informal gatherings of coworkers (Landeche, 2009; Center for Mental Health in Schools at UCLA, 2008 ; Hanson, 2006; Wiley, 2000).

Feedback and recognition. Feedback is the factor that has been found to be most strongly related to job satisfaction, yet teachers typically receive very little accurate and helpful feedback regarding their teaching (Schwinn, 2007). If evaluation happens only once or twice a year and doesn't include clear

objective standards, teachers will be unsure of the extent to which they are meeting their performance targets, leading to higher levels of stress (Schwinn, 2007; Wood & McCarthy, 2002; Maslach et al., 2001; Jorde, 1991).

School administrators should recognize teachers in both formal and informal ways so they feel valued and their sense of personal accomplishment is enhanced. Teachers should be praised for student performance gains, creative lesson plans, attractive classroom environments, good preparation for substitute teachers, and contributions of their time and talents to committees. School bulletins, district newsletters, and faculty meetings are ideal forums to communicate teachers' accomplishments to all school staff and the local community (Heathfield, 2009; Schwinn, 2007; Haberman, 2004; Howard & Johnson, 2004; Leithwood et al., 2001; Hoversten, 1992; Cedoline, 1982).

Adequate resources. To the extent possible, schools should provide adequate facilities and financial and material resources in support of teachers' work. Researchers have concluded that lack of resources creates stress and low morale among teachers (Hakanen et al., 2006; Bivona, 2002; Wood & McCarthy, 2002; Leithwood et al., 2001; Wiley, 2000).

Supportive and Participative Leadership. The individual with the greatest ability to prevent teacher burnout is the school principal. Studies indicate that the principal's management skills have a strong influence on the amount of stress teachers experience. In schools with poor staff morale, principals tend to be perceived as authoritative, punitive, inconsistent, nonsupportive, formal, and impatient. In schools with higher morale, principals are typically described as being open, helpful, student-centered, responsive, and fair (Schwinn, 2007; Kilgallon, 2006; Wiley, 2000; Sinclair, 1992). Schools with lower rates of teacher burnout are led by principals who engage in the following activities (Heathfield, 2009; Landeche, 2009; Schwinn, 2007; Wood & McCarthy, 2002; Leithwood et al., 2001; Lumsden, 1998; Sinclair, 1992):

- establish a school-wide atmosphere that is welcoming, encourages mutual support and caring, and contributes to a sense of community;
- support teachers by serving as guardians of their instructional time and assisting with student discipline matters;
- treat staff with fairness and consistency;
- provide opportunities for teachers to make decisions about and control and/or influence their own jobs;
- communicate effectively and provide the context for decisions;
- help teachers develop meaningful and challenging individual professional goals that are compatible with the school's goals;
- allow teachers the opportunity to grow and develop by offering cross-training and lateral moves when promotions are not available;
- whenever possible, provide relief from increasing workloads and paperwork;
- provide teachers the freedom to develop collegial relationships;
- provide timely, proactive responses to teachers' questions and concerns; and
- minimize the number of rules directing teachers' behavior.

Most importantly, principals should involve teachers in the decision-making process when it concerns their areas of expertise. Studies have found that teachers are more likely to experience burnout when they are excluded from decisions that affect their jobs. Researchers have therefore recommended that teachers be provided with a variety of meaningful opportunities to shape such decisions (Bivona, 2002; Center for Mental Health in Schools at UCLA, 2002; Wood & McCarthy, 2002; Wiley, 2000; Lumsden, 1998). The Center for Mental Health in Schools at UCLA (2002) cautioned that assigning teachers to planning committees and teams that have little or no impact on educational decisions can actually contribute to burnout.

Formation of collegial relationships. Although professional isolation is common among teachers, studies have found that the formation of collegial relationships reduces teachers' stress levels. Teachers should be provided with opportunities to engage in constructive dialogue, provide each other with support and assistance, share ideas and materials, and collaborate on challenging and stimulating assignments and projects (Center for Mental Health in Schools at UCLA, 2008; Schwinn, 2007; Kilgallon, 2006; Howard & Johnson, 2004; Educational Research Service, 2003; Leithwood et al., 2001; Cooley & Yovanoff, 1996; Farber & Ascher, 1991).

On a Local Note

Each school year, the School Climate Survey is administered by the Department of Research Services to gather information on the perceptions that students, their parents, and school staff hold concerning their schools and their performance. In 2009-10, surveys were distributed to approximately 85,000 parents, 45,000 students, and 25,000 non-administrative professional staff at about 450 school locations. This report focuses on staff responses to items that relate to morale, stress, and burnout. Completed surveys were received from 72 percent of surveyed staff (17,654 staff). The vast majority of respondents identified themselves as classroom teachers (92 percent).

As can be seen in Table 1, staff morale and principal support were perceived as high by the majority of staff, but a large number of staff agreed that they were frequently overloaded and overwhelmed in their jobs. Highlights of Table 1 include:

- The majority of staff at all school levels reported that their schools were characterized by team work and supportive principals. A higher percent of staff from elementary schools and K-8 centers agreed or strongly agreed with these statements, compared to staff from middle and senior high schools.
- The majority of staff at all school levels agreed that their ideas were considered. A higher percent of staff from elementary schools and K-8 centers agreed or strongly agreed with this statement, compared to staff from middle and senior high schools.
- The majority of staff from elementary, middle, and senior high schools (but not K-8 centers) stated that their ability to do the best possible job was limited by lack of concern/support from parents.
- At the high school level, almost half (46 percent) of staff believed that their ability to do the best possible job was limited by insufficient resources.
- Although the majority of respondents agreed that staff morale was high at their schools, two out of five middle and senior high school respondents did not concur.
- Over 40 percent of staff at all school levels reported that they frequently felt overloaded and overwhelmed in their jobs.
- The majority of staff agreed that teacher evaluations were fair, especially at elementary schools and K-8 centers.

Full 2009-10 School Climate Survey results are available on Research Services' Web site at <http://drs.dadeschools.net>.

Table 1. Staff Responses to Selected School Climate Survey Items, 2009-10

School Climate Survey Item	% Agreeing or Strongly Agreeing			
	Elementary	K-8 Centers	Middle	Senior
At my school, personnel work together as a team.	83%	89%	77%	76%
At my school, administrators solve problems effectively.	80%	85%	74%	73%
At my school, I feel that my ideas are listened to and considered.	79%	83%	72%	70%
At my school, adequate disciplinary measures are used to deal with disruptive behavior.	73%	78%	66%	69%
My principal is an effective administrator.	84%	91%	80%	81%
My principal responds in a reasonable time to my concerns.	86%	89%	83%	80%
My principal treats me with respect.	89%	94%	88%	89%
My principal is supportive of teachers.	83%	89%	79%	80%
My ability to do the best possible job at this school is limited by lack of concern/support from parents.	53%	34%	56%	53%
My ability to do the best possible job at this school is limited by lack of concern/support from the principal.	9%	5%	11%	9%
My ability to do the best possible job at this school is limited by insufficient resources (e.g., funds, books, equipment, supplies, etc.).	34%	33%	39%	46%
Staff morale is high at my school.	63%	73%	54%	55%
I frequently feel overloaded and overwhelmed while working at my school.	44%	42%	43%	41%
Annual teacher evaluations are fair and reasonable.	84%	85%	76%	74%
Inservice programs keep me informed of the latest educational strategies.	86%	85%	80%	74%

Summary

Burnout within the teaching profession has been recognized as a serious problem. In addition to the stress that arises from routine job duties, teachers have responsibility for the well-being of their students. Many also contend with limited resources, long hours, and poor working conditions that lead to chronic stress and eventually burnout. Teachers suffering from burnout dread going to work in the morning and feel depressed, anxious, angry, and frustrated. Physical problems associated with burnout include headaches, digestive disorders, high blood pressure, heart palpitations, and insomnia. Burnout is often manifested in behavioral reactions such as tardiness, absenteeism, poor job performance, and lack of interest and commitment.

There are many different environmental factors that can lead to teacher burnout, including poor working conditions, excessive job demands, lack of recognition and feedback, disruptive students, and lack of administrative and collegial support. Teachers' individual characteristics, such as personality traits and demographic factors, can also make them more or less prone to burnout. Strong feelings of self-efficacy in particular appear to act as a buffer between stressful school environments and burnout. Most researchers believe burnout is the result of an interaction between school conditions and teachers'

personality characteristics, but studies have produced contradictory findings regarding which variables play the most important role in the development of burnout. Some researchers have reported that environmental factors are better predictors of burnout than personal characteristics. Others, however, have concluded that personal characteristics contribute more to explanations of burnout than situational factors.

Activities schools can engage in to eliminate teacher burnout and reduce chronic work-related stress include offering stress management and time management workshops; providing opportunities for professional development, including conferences and career planning programs, as well as regular mentoring and networking; establishing peer support groups; and providing feedback, recognition, and supportive leadership.

Results from administration of the 2009-10 School Climate Survey in Miami-Dade County Public Schools indicated that most staff believed their principal was supportive. Although the majority of respondents agreed that staff morale was high at their school, approximately 45 percent of middle and senior high school respondents did not concur. In addition, a large number of staff agreed that they were frequently overloaded and overwhelmed in their jobs.

On the following pages, a list of strategies compiled from researchers and experts in the field of burnout is provided to help teachers manage chronic stress and avoid burnout.

Tips for Managing Chronic Stress and Avoiding Burnout

The following tips are compiled from researchers and experts in the field of work-related burnout. Although every job has deadlines, performance expectations, and other stressful responsibilities, the following strategies may help you manage chronic stress and avoid burnout.

- **Know the early signs of unmanaged stress.** Different individuals react to stress in their own unique manner and it is important to identify the primary causes of your stress and understand the way in which you respond to stressful situations. Learn your own emotional and physical stress signals, such as frustration, withdrawal, headaches, muscle tension, or lack of energy (American Psychological Association, 2010b; Hutman et al., 2005; Terry, 1997).
- **Recognize your own limitations and set realistic expectations for yourself.** Since it is impossible to complete all aspects of an overwhelming job perfectly, set priorities and work on tasks in order of their importance. If you're not sure which tasks are most important, ask your supervisor to prioritize them for you (American Psychological Association, 2010c; Mental Health America, 2010; Hutman et al., 2005; Kyriacou, 2001; Brownell, 1997; Terry, 1997)
- **Set boundaries between home and work.** Don't bring school work home on a daily basis. Set rules for yourself, such as turning off your cell phone or BlackBerry when you get home, or establishing certain times when you return calls (American Psychological Association, 2010b; Smith, 2010; Kyriacou, 2001).
- **Spend time relaxing after work.** Cultivate outside interests and hobbies or relax with music or a good book (Smith, 2010; Hutman et al., 2005; Brownell, 1997; Lombardi, 1990). Hutman and colleagues (2005) suggested joining a cause, community group, or professional association that is personally meaningful.
- **Learn cognitive strategies for coping with stressful situations.** Examples include directly confronting the student or colleague who is the source of your stress; reminding yourself about the aspects of your job you enjoy; managing your anger; staying flexible; and maintaining a positive outlook (American Psychological Association, 2010c; Mental Health America, 2010; Hutman et al., 2005; Brownell, 1997).
- **Practice stress reduction techniques, such as muscle relaxation, meditation, and positive mental imagery** (Hutman et al., 2005; Brownell, 1997; Terry, 1997; Lombardi, 1990). Mental Health America (2010) reported that just 10-20 minutes of quiet reflection or meditation a day can help relieve chronic stress.
- **Take short breaks throughout the day.** Every few hours, take a few minutes to stand up, stretch, breathe deeply, and shake off the accumulating tension (American Psychological Association, 2010c; Mental Health America, 2010).
- **Break out of old routines.** Invent creative new ways to complete routine tasks. Try new instructional strategies or even ask to teach a new grade level (Lumsden, 1998; Lombardi, 1990).
- **Keep learning.** Seek out professional development opportunities, take a class, attend a conference, or organize a workshop (Lumsden, 1998; Lombardi, 1990).

- **Collaborate with colleagues.** The more isolated you are, the greater the likelihood that you'll become unsure of your abilities or run out of new ideas. Colleagues can provide helpful suggestions, feedback, and reassurance (Lombardi, 1990).
 - **Discuss your problem with friends or colleagues.** People often feel less stressed after discussing issues that are disturbing them, especially if the friend or colleague generates solutions for the stressful situation (American Psychological Association, 2010c; Mental Health America, 2010; Kyriacou, 2001; Lumsden, 1998; Brownell, 1997; Terry, 1997).
 - **Accept the fact that you can't solve all of your students' problems.** Teachers who become closely involved and preoccupied with the personal and family problems of their students increase their vulnerability to burnout (Brownell, 1997). Lombardi (1990) recommended that teachers allow students to face the consequences of their actions and recognize that they can't rescue them or fight their battles.
 - **Take care of your health so you have the energy to tackle workplace challenges.** For example:
 - Make sure you're getting enough sleep. Experts recommend going to bed at a regular time each night and, if possible, getting seven to eight hours of sleep. Eliminate distractions from the bedroom, such as televisions and computers and begin winding down an hour or two before going to sleep (American Psychological Association, 2010c; Hutman et al., 2005).
 - Maintain healthy eating habits, including three balanced meals per day and high-protein snacks to help sustain your energy throughout the work day. Certain foods, such as coffee, chocolate, and soft drinks, contain caffeine, a stimulant known to increase anxiety, and should be avoided. Alcohol consumption should be limited (American Psychological Association, 2010c; Mental Health America, 2010; Hutman et al., 2005; Brownell, 1997; Terry, 1997).
 - Exercise to release tension. Activities like yoga, aerobics, walking, or playing sports enhance both your physical and mental health (American Psychological Association, 2010b; Mental Health America, 2010; Hutman et al., 2005; Terry, 1997).
 - **Think through your career goals and assess whether it's time for a change in professions.** Examine other education-related careers you might like to pursue, such as reading specialist, school psychologist, guidance counselor, or other support staff position (Hutman et al., 2005; Lombardi, 1990).
 - **If burnout or high levels of stress persist, seek professional help.** Miami-Dade County Public Schools' Employee Assistance Program provides assistance to employees suffering from burnout or chronic stress. Employee Services can be reached at (305) 995-7888. The Employee Assistance Program's Web site is <http://pers.dadeschools.net/EmployeeServices.asp>.
- The American Psychological Association (2010c) suggests that you seek consultation with a licensed mental health professional if you continue to feel overwhelmed or are having trouble getting through your daily routine. Psychologists are trained to help you develop strategies to manage stress effectively.
- Mental Health America (2010) recommends that individuals suffering from burnout or chronic stress seek help from employer-sponsored employee assistance programs, primary care providers, spiritual leaders, or Mental Health America. Mental Health America's Web site, which includes an array of links and resources, can be accessed at <http://www.mentalhealthamerica.net/go/mind-your-stress-on-the-job>. The telephone number of their national office's Resource Center is (800) 969-6642. In addition, a Mental Health America local affiliate is located in Broward County and can be reached by calling (954) 746-2055.

References

- Abel, M.H., & Sewell, J. (1999). Stress and Burnout in Rural and Urban Secondary School Teachers. *Journal of Educational Research*, 92(5), 23-35.
- Alliance for Education. (2004). *Tapping the Potential: Retaining and Developing High Quality New Teachers*. Retrieved from <http://www.all4ed.org/files/archive/publications/TappingThePotential/TappingThePotential.pdf>.
- American Psychological Association. (2010a). *Mind/Body Health: Job Stress*. Retrieved from <http://www.apa.org/helpcenter/job-stress.aspx>.
- American Psychological Association. (2010b). *Overwhelmed by Workplace Stress? You're Not Alone*. Retrieved from <http://www.apa.org/helpcenter/work-stress.aspx>.
- American Psychological Association. (2010c). *Stress Won't Go Away? Maybe You Are Suffering from Chronic Stress*. Retrieved from <http://www.apa.org/helpcenter/chronic-stress.aspx>.
- Bachelor, P., & Gold, Y. (1988). Signs of Burnout are Evident for Practice Teachers During the Training Period. *Education*, 108(4), 546-555.
- Baker, E. (2009). *British Work Stress - 65% Higher Risk of Heart Attack*. Retrieved from <http://www.adrenalfatigue.co.nz/stress/british-work-stress-65-higher-risk-of-heart-attack>.
- Berg, B. (1994). Educator Burnout Revisited: Voices from the Staff Room. *The Clearing House*, 67(4), 185-188.
- Bivona, K.N. (2002). *Teacher Morale: The Impact of Teaching Experience, Workplace Conditions, and Workload*. ERIC Document Reproduction Service No. ED467760.
- Brissie, J.S., Hoover-Dempsey, K.V., & Basler, O.C. (1988). Individual Situational Contributors to Teacher Burnout. *The Journal of Educational Research*, 82(2), 106-112.
- Brouwers, A., & Tomic, W. (1999). Teacher Burnout, Perceived Self-Efficacy in Classroom Management, and Student Disruptive Behaviour in Secondary Education. *Curriculum and Teaching*, 14(2), 7-26.
- Brown, Z.A., & Uehara, D.L. (1999). *Coping With Teacher Stress: A Research Synthesis for Pacific Educators*. Pacific Resources for Education and Learning, Honolulu, HI. Retrieved from <http://www.prel.org/products/Products/Coping-teacherStress.htm>.
- Brownell, M. (1997). Coping with Stress in the Special Education Classroom: Can Individual Teachers More Effectively Manage Stress? *ERIC Digest, Number E545*. ERIC Document Reproduction Service No. ED414659.
- Bunce, D., & West, M.A. (1996). Stress Management and Innovation Interventions at Work. *Human Relations*, 49(2), 209-231.
- Byrne, B.M. (1994). Burnout: Testing of the Validity, Replication and Invariance of Causal Structure Across Elementary, Intermediate, and Secondary Teachers. *American Educational Research Journal*, 31(3), 645-673.

- Camilli, K.A. (2004). *Teacher Job Satisfaction and Teacher Burnout as a Product of Years of Experience in Teaching*. Thesis submitted to the Graduate School at Rowan University, Glassboro, NJ. Retrieved from http://www.rowan.edu/library/rowan_theses/RU2004/0022TEAC.pdf.
- Cano-García, F.J., Padilla-Muñoz, E.M., & Carrasco-Ortiz, M.A. (2004). Personality and Contextual Variables in Teacher Burnout. *Personality and Individual Differences*, 38(4), 929-940.
- Cedoline, A.J. (1982). *Job Burnout in Education: Symptoms, Causes, and Survival Skills*. New York: Teachers College, Columbia University.
- Center for Mental Health in Schools at UCLA. (2002). School Staff Burnout. *Addressing Barriers to Learning*, 7(2), 9-13.
- Center for Mental Health in Schools at UCLA. (2008). *Understanding and Minimizing Staff Burnout*. Retrieved from <http://smhp.psych.ucla.edu/pdfdocs/Burnout/burn1.pdf>.
- Cheek, J.R., Bradley, L.J., Parr, G., & Lan, W. (2003). Using Music Therapy Techniques to Treat Teacher Burnout. *Journal of Mental Health Counseling*, 25(3), 204-213.
- Cooley, E., & Yovanoff, P. (1996). Supporting Professionals-At-Risk: Evaluating Interventions to Reduce Burnout and Improve Retention of Special Educators. *Exceptional Children*, 62(4), 336-355.
- Corey, G. (1996). Causes of Burnout. In Center for Mental Health in Schools at UCLA. *Understanding and Minimizing Staff Burnout*. Retrieved from <http://smhp.psych.ucla.edu/pdfdocs/Burnout/burn1.pdf>.
- Durr, A.J. (2008). *Identifying Teacher Capacities That May Buffer Against Teacher Burnout*. Dissertation submitted to the Graduate School of The Ohio State University, Columbus, OH. Retrieved from <http://etd.ohiolink.edu/send-pdf.cgi/Durr Anthony John.pdf?OSU/227554195>.
- Dworkin, A.G. (1987). *Teacher Burnout in the Public Schools: Structural Causes and Consequences for Children*. New York: State University of New York Press.
- Dworkin, A.G. (2001). Perspectives on Teacher Burnout and School Reform. *International Education Journal*, 2(2), 69-78.
- Educational Research Service. (2003). Building a Professional Learning Community. *ERS On the Same Page Series*. Retrieved from <http://www.ers.org/otsp/otsp9.htm>.
- Evers, W.J.G., Gerrichhauzen, J., & Tomic, W. (2000). *The Prevention and Mending of Burnout Among Secondary School Teachers*. Technical Report, The Open University, Heerlen, The Netherlands. ERIC Document Reproduction Service No. ED439091.
- Farber, B.A. (1984). Stress and Burnout in Suburban Teachers. *Journal of Educational Research*, 77(6), 325-331.
- Farber, B.A. (1998). *Tailoring Treatment Strategies for Different Types of Burnout*. Paper presented at the annual convention of the American Psychological Association, San Francisco, CA, August 1998. ERIC Document Reproduction Service No. ED424517.
- Farber, B.A. (2000). Treatment Strategies for Different Types of Teacher Burnout. *Journal of Clinical Psychology/In Session*, 56(5), 675-689.

Farber, B., & Ascher, C. (1991). Urban School Restructuring and Teacher Burnout. *ERIC Digest, Number 75*. ERIC Document Reproduction Service No. ED340812.

Friedman, I.A. (1991). High- and Low-Burnout Schools: School Culture Aspects of Teacher Burnout. *The Journal of Educational Research*, 84(6), 325-333.

Goddard, R., & O'Brien, P. (2004). Are Beginning Teachers With a Second Degree at a Higher Risk or Early Career Burnout? *Australian Journal of Teacher Education*, 29(1), 31-40.

Godsey, C., Lambert, J.G., & Ratini, M. (2007). *Stress Can Increase Your Risk of Heart Disease*. Retrieved from <http://www.healthline.com/sw/wl-stress-can-increase-your-risk-of-heart-disease>.

Gold, Y. (2001). Burnout: A Major Problem for the Teaching Profession. *Education*, 104(3), 271-274.

Graham, P.A. (1999). Teacher Burnout. In R. Vandenberghe & A.M. Huberman (Eds.), *Understanding and Preventing Teacher Burnout: A Sourcebook of International Research and Practice*. Cambridge, UK: Cambridge University Press.

Haberman, M. (2004). *Teacher Burnout in Black and White*. Retrieved from [http://www.habermanfoundation.org/Articles/PDF/Teacher Burnout in Black and White.pdf](http://www.habermanfoundation.org/Articles/PDF/Teacher%20Burnout%20in%20Black%20and%20White.pdf).

Hakanen, J.J., Bakker, A.B., & Schaufeli, W.B. (2006). Burnout and Work Engagement Among Teachers. *Journal of School Psychology*, 43, 495-513.

Hall, B.W., Villeme, M.G., & Phillippy, S.W. (1988). Predisposition for Burnout Among First-Year Teachers. *The Teacher Educator*, 24(2), 13-21.

Hammond, O.W., & Onikama, D.L. (1996). *At Risk Teachers*. Pacific Resources for Education and Learning, Honolulu, HI. Retrieved from <http://www.prel.org/products/Products/AtRisk-teacher.pdf>.

Hanson, A.M. (2006). *No Child Left Behind: High-Stakes Testing and Teacher Burnout in Urban Elementary Schools*. Dissertation submitted to the University of Phoenix, Phoenix, AZ. ERIC Document Reproduction Service No. ED493443.

Heathfield, S.M. (2009). *Tips for Minimizing Workplace Negativity: Managing and Solving Workplace Negativity*. About.com: Human Resources. Retrieved from <http://humanresources.about.com/od/workrelationships/a/negativity.htm>.

Hittner, A. (1981). *Teachers In Stress, Perceptions of Stress and Life Satisfaction*. Gaithersburg, MD: Associated Faculty Press.

Hoversten, C. (1992). How Principals Inspire Teachers. *NASSP Bulletin*, 76(542), 102-106.

Howard, S., & Johnson, B. (2004). Resilient Teachers: Resisting Stress and Burnout. *Social Psychology Education*, 7(4), 399-420.

Hutman, S., Jaffe, J., Segal, R., Kemp, G., & Dumke, L.F. (2005). *Burnout: Signs, Symptoms and Prevention*. Child Development Resource Connection Peel, Mississauga, Ontario, Canada. Retrieved from <http://www.cdrpc.com/pdf/Burnout.pdf>.

Jorde, P. (1982). *Avoiding Burnout: Strategies for Managing Time, Space, and People in Early Childhood Education*. Washington, DC: Acropolis Books Ltd.

- Keita, G.P. (2010). *Calling More Attention to Worker Stress*. American Psychological Association. Retrieved from <http://www.apa.org/monitor/2010/04/itpi.aspx>.
- Kilgallon, P. (2006). *The Sustainment of Early Childhood Teachers in the Classroom*. Thesis submitted to the School of Education of Edith Cowan University, Joondalup, Western Australia. Retrieved from <http://adt.ecu.edu.au/adt-public/adt-ECU2006.0052.html>.
- Kokkinos, C.M. (2007). Job Stressors, Personality and Burnout in Primary School Teachers. *British Journal of Educational Psychology*, 77(1), 229-243.
- Kyriacou, C. (2001). Teacher Stress: Directions for Future Research. *Educational Review*, 53(1), 27-35.
- Labone, E. (2002). *The Role of Teacher Efficacy in the Development and Prevention of Teacher Burnout*. Paper presented at the annual meeting of the Australian Association for Research in Education, Brisbane, Australia, December 2002. Retrieved from <http://www.aare.edu.au/02pap/lab02593.htm>.
- Landeche, P. (2009). *The Correlation Between Creativity and Burnout in Public School Classroom Teachers*. Thesis submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College, Baton Rouge, LA. Retrieved from <http://etd.lsu.edu/docs/available/etd-07082009-090811/unrestricted/landechethesis.pdf>.
- Leithwood, K., Jantzi, D., & Steinbach, R. (2001). Maintaining Emotional Balance. *Educational Horizons*, 79(2), 73-82.
- Lens, W., & Neves de Jesus, S. (1999). A Psychosocial Interpretation of Teacher Stress and Burnout. In R. Vandenbergh & A.M. Huberman (Eds.), *Understanding and Preventing Teacher Burnout: A Sourcebook of International Research and Practice*. Cambridge, UK: Cambridge University Press.
- Lombardi, J.D. (1990). Do You Have Teacher Burnout? In Center for Mental Health in Schools at UCLA. *Understanding and Minimizing Staff Burnout*. Retrieved from <http://smhp.psych.ucla.edu/pdfdocs/Burnout/burn1.pdf>.
- Lumsden, L. (1998). Teacher Morale. *ERIC Digest, Number 120*. ERIC Document Reproduction Service No. ED422601.
- Maslach, C., & Jackson, S.E. (1982). Burnout in Health Professions: A Social Psychological Analysis. In G. Sanders & J. Suls (Eds.), *Social Psychology of Health and Illness*. Hillsdale, NJ: Erlbaum.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job Burnout. *Annual Review of Psychology*, 52(1), 397-422.
- Melamed, S., Shirom, A., Toker, S., & Shapira, I. (2006). Burnout and Risk of Type 2 Diabetes: A Prospective Study of Apparently Healthy Employed Persons. *Psychosomatic Medicine*, 68(6), 863-869.
- Mental Health America. (2010). *Factsheet: Mind Your Stress - - On the Job*. Retrieved from <http://www.nmha.org/index.cfm?objectid=C7DF9974-1372-4D20-C89417A56B38B3EF>.
- Murray, P.C. (2007). *Teacher Stress: Past and Present*. United Federation of Teachers Speakout Column. Retrieved from <http://www.uff.org>.
- Noushad, P.P. (2008). *From Teacher Burnout to Student Burnout*. Online submission to Education Resources Information Center. ERIC Document Reproduction Services No. ED502150.

- Omdahl, B.L., & Fritz, J.M.H. (2006). *Coping with Problematic Relationships in the Workplace: Strategies that Reduce Burnout*. Paper presented at the annual meeting of the International Communication Association, Dresden Germany, June 2006. Retrieved from http://www.allacademic.com/meta/p93215_index.html.
- Özkanal, U., & Arıkan, N. (2010). Investigation of Burnout Among Instructors Working at ESOGU Preparatory School. *Canadian Center of Science and Education English Language Teaching*, 3(1). 166-172.
- Parker-Pope, T. (2008). Teacher Burnout? Blame the Parents. *The New York Times*, January 2, 2008.
- Pearson, L.C., & Moomaw, W. (2005). The Relationship Between Teacher Autonomy and Stress, Work Satisfaction, Empowerment, and Professionalism. *Educational Research Quarterly*, 29(1), 38-54.
- Pedulla, J.J., Abrams, L.M., Madaus, G.F., Russell, M.K., Ramos, M.A., & Miao, J. (2003). *Perceived Effects of State-Mandated Testing Programs on Teaching and Learning: Findings from a National Survey of Teachers*. Lynch School of Education, Boston College. ERIC Document Reproduction Service No. ED481836.
- Potter, B. (2005). *Symptoms of Burnout*. Retrieved from <http://www.docpotter.com/boclass-2bosymptoms.html>.
- Schwinn, K. (2007). *The Professional Lifecycle of Teachers: Intervention Strategies for Coping with Teacher Burnout and Stress*. Retrieved from <http://www.teacherburnoutandstress.com>.
- Scott, E. (2006). *Stress and Burnout: Burnout Symptoms and Causes*. Retrieved from http://stress.about.com/od/burnout/a/stressn_burnout.htm.
- Scott, E. (2010). *Job Burnout: Job Factors That Contribute to Employee Burnout*. Retrieved from http://stress.about.com/od/burnout/a/job_burnout.htm.
- Scott, C., Stone, B., & Dinham, S. (2001). I Love Teaching But . . . International Patterns of Teacher Discontent. *Education Policy Analysis Archives*, 9(28). Retrieved from <http://epaa.asu.edu/ojs/article/view/357>.
- Sinclair, K. (1992). Morale, Satisfaction and Stress in Schools. In C. Turney, N. Hatton, K. Laws, K. Sinclair, & D. Smith (Eds.), *The School Manager*. Sydney, Australia: Allen & Unwin Book Publishers.
- Smith, J. (2010). Avoiding Teacher Burnout - Home Remedies. *Ezine Articles*. Retrieved from <http://ezinearticles.com/?Avoiding-Teacher-Burnout--Home-Remedies&id=3517740>.
- Sunderman, G.L., Tracey, C.A., Kim, J., & Orfield, G. (2004). *Listening to Teachers: Classroom Realities and No Child Left Behind*. The Civil Rights Project, Harvard University, Cambridge, MA. ERIC Document Reproduction Service No. ED489176.
- Taylor, G., Shepard, L., Kinner, F., & Rosenthal, J. (2002). *A Survey of Teachers' Perspectives on High-Stakes Testing in Colorado: What Gets Taught, What Gets Lost*. Center for the Study of Evaluation, Standards, and Student Testing, Technical Report 588. Graduate School of Education & Information Studies, University of California, Los Angeles. ERIC Document Reproduction Service No. ED475139.
- Taylor, B., Zimmer, C., & Womack, S.T. (2005). *Strategies to Prevent Teacher Stress*. Online submission to Education Resources Information Center. ERIC Document Reproduction Service No. ED490663.
- Terry, P.M. (1997). *Teacher Burnout: Is It Real? Can We Prevent It?* Paper presented at the annual meeting of the North Central Association of Colleges and Schools, Chicago, IL, April 1997. ERIC Document Reproduction Service No. ED408258.

Texas Medical Association. (2009). *Three Stages of Burnout*. Retrieved from <http://www.texmed.org/Template.aspx?id=4985>.

Timms, C., Graham, D., & Caltabiano, M. (2006). Gender Implications of Perceptions of Trustworthiness of School Administration and Teacher Burnout/Job Stress. *Australian Journal of Social Issues*, 41(3), 343-358.

Timms, C., Graham, D., & Caltabiano, M. (2007). Perceptions of School Administration Trustworthiness, Teacher Burnout/Job Stress and Trust: The Contribution of Morale and Participative Decision Making. In I. Glendon, B. Myors, & B.M. Thompson (Eds.), *Advances in Organisational Psychology*. Brisbane: Australian Academic Press.

Toppinen-Tanner, S., Ojajärvi, A., Väänänen, A., Kalimo, R., & Jääppinen, P. (2005). Burnout as a Predictor of Medically Certified Sick-Leave Absences and Their Diagnosed Causes. *Behavioral Medicine*, 31(1), 18-27.

The University of Melbourne. (n.d.). *Stress and Burnout*. Retrieved from <http://www.services.unimelb.edu.au/counsel/downloads/StressBurnout.pdf>.

van Dierendonck, D., Schaufeli, W.B., & Buunk, B.P. (1998). The Evaluation of an Individual Burnout Intervention Program: The Role of Inequity and Social Support. *Journal of Applied Psychology*, 83(3), 392-407.

Weisberg, J., & Sagie, A. (1999). Teachers' Physical, Mental, and Emotional Burnout: Impact on Intention to Quit. *Journal of Psychology*, 133(3), 333-338.

Wiley, C. (2000). A Synthesis of Research on the Causes, Effects, and Reduction Strategies of Teacher Stress. *Journal of Instructional Psychology*, 27(2), 80-87.

Wood, T., & McCarthy, C. (2002). *Understanding and Preventing Teacher Burnout*. ERIC Digest. ERIC Document Reproduction Service No. ED477726.

Zabel, R.H., & Zabel, M.K. (2001). Revisiting Burnout Among Special Education Teachers: Do Age, Experience, and Preparation Still Matter? *Teacher Education and Special Education*, 24(2), 128-139.

Zhang, Q., & Sapp, D.A. (2008). A Burning Issue in Teaching: The Impact of Teacher Burnout and Nonverbal Immediacy on Student Motivation and Affective Learning. *Journal of Communication Studies*, 1(2), 152-168.