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Crisis in Education: A Call to ACT

A Dissertation Submitted to the Graduate School at the University of Missouri - St. Louis
in partial fulfillment of the requirements for the degree
Doctor of Philosophy in Clinical Psychology

March 2011

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Running Head: CRISIS IN EDUCATION: A CALL TO ACT

Crisis in Education: A Call to ACT

Debra W. Emery

University of Missouri- St. Louis

March 2011

This project fulfills the requirement of the Dissertation.

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Abstract

The current education system in the United States is riddled with difficulties which include an increasing demand for qualified teachers and persistently high attrition rates. Teachers are prone to low job satisfaction, low self-efficacy, as well as increased stress and burnout. Although these problems are widely discussed in the literature, scant intervention research is available. Additionally, existing interventions miss two key elements that may be especially relevant to the challenges faced by educators: acceptance and values. The current study examined the efficacy of acceptance and commitment therapy (ACT) for reducing teacher burnout through a day-long professional development workshop. Thirty-five teachers were assigned to either an experimental (n=20) or waitlist control group (n=15). At three months followup, burnout levels significantly decreased for the ACT group and increased for the control group. Additionally, changes in burnout were mediated by the acceptance of undesirable thoughts and feelings. The current study supports ACT as an effective method for reducing burnout in teachers.

The current education system in the United States is riddled with difficulties which include an increasing demand for qualified teachers and persistently high attrition rates. Teachers are prone to low job satisfaction, low self-efficacy, as well as increased stress and burnout. It is estimated that teachers leaving their profession cost the system approximately 7.3 billion dollars annually (Barnes, Crowe, & Schaefer, 2007). In Missouri alone the estimated yearly cost of teacher turnover is more than 111 million dollars (Ingersoll, 2003). Forty-two percent of teachers report job dissatisfaction or the decision to pursue another job as reasons for leaving the teaching field (Ingersoll, 2001).

Numerous factors are linked to the high attrition rates of teachers, including professional stress due to student-teacher characteristics and workplace manageability. Educators are chronically faced with the arduous task of teaching challenging student populations in the context of demanding working environments. Top stressors include low student motivation, classroom discipline challenges, student hostility, student hyperactivity, continuous policy changes, and a lack of resources (Geving, 2007; Kaufhold, Alvarez, & Arnold, 2006; Kyriacou, 2001). Among special education teachers, the demands to teach students with multiple disabilities, classrooms with students representing a range of disabilities, and increasingly high case loads also contribute significantly to workplace stress. A study by Kaff (2004) of special educators who were considering leaving their field found that 57 percent cited student caseload and a broad range of disabilities within their caseloads as contributing factors. Workload demands, time pressure, paperwork, and regulatory issues are also linked to teacher stress and attrition rates (Carlson, Chen, & Schroll, 2003; Kyriacou, 2001). Paperwork demands

were described as “a bureaucrat’s worst nightmare” (Kaff, 2004). Some have indicated spending as much time on paperwork as lesson planning (Carlson, Chen, & Schroll, 2003).

Burnout

Burnout Defined

High attrition rates are also associated with burnout (Billingsley, 2004), a product of chronic situational stress (Maslach, Jackson, & Leiter, 1996; Maslach & Schaufeli, 1993) and personal investment (Pines, 1993). Burnout has been described as “a progressive loss of ... energy and purpose experienced by people in the helping professions as a result of the conditions of their work” (Edelwich & Brodsky, 1980; p.14), “a state of fatigue or frustration brought about by devotion to a cause” (Freudenberger & Richelson, 1980; p.13), and “the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems” (Maslach, 1982; p.3). While bearing subtle differences, each of these definitions suggest that burnout is more than a general stress reaction. Rather, burnout happens when situational stressors interfere with the ability to experience meaning through one’s work (Pines, 1993). In the case of educators who are committed to the personal and academic growth of their students, burnout may occur when these teachers feel encumbered by job demands, and believe that challenges in their work environment impede the ability to accomplish their professional goals.

Maslach and Jackson’s definition of burnout is most widely used in the literature. Burnout is “a syndrome of emotional exhaustion, depersonalization and reduced personal

accomplishment that can occur among individuals who do ‘people work’ of some kind” (1986, p.1). Emotional exhaustion occurs when one feels overextended, drained of emotional resources, and lacking in physical and emotional energy. Emotional exhaustion may include a “loss of feeling and concern, a loss of trust, a loss of interest, a loss of spirit” (Maslach, 1982, p.32). It is not a consequence of boredom from tedious, monotonous work. Instead, emotional exhaustion is the result of being invested in one’s work and experiencing a toll on one’s personal resources over a period of time (Maslach, 1993). Teachers experiencing emotional exhaustion may experience a lack of energy, diminished motivation, dread going to work, invest less of themselves with their students, and respond formulaically rather than flexibly. Depersonalization, the second component of burnout, is an attempt to protect oneself from exhaustion through a psychological distancing from others (Maslach & Leiter, 1997). It is a shift in how one relates to others, whether through cold indifference, cynicism, callous disregard, loss of idealism, irritability, or negative attitudes toward others. Depersonalization is a means of avoiding individuals whose needs and demands are experienced as overwhelming (Maslach, 1982, 2003). In the classroom, depersonalization may interfere with collaborative working relationships between teacher/student, teacher/parents, teacher/colleagues, and teacher/administration. Students may be seen more as numbers or diagnostic categories than individuals. Teachers may become less willing to engage with parents whom they perceive as overly demanding. They may also become more reluctant to work through difficult collegial and administrative relationships and policies. The third component of burnout is a reduced sense of personal accomplishment. This aspect of burnout involves

a shift in self appraisal where feelings of inefficacy and negative self evaluations arise (Cordes & Dougherty, 1993). Teachers experiencing a diminished sense of personal accomplishment may feel less competent, less productive, and experience guilt. They may even feel that they are losing ground professionally and doubt their effectiveness in the teaching field.

Costs of Burnout

Significant costs arise from burnout, both to the individual educator and the education system. There is some evidence to suggest that health risks are associated with burnout. These include chronic fatigue, recurrent flu, infections, colds, and headaches, among others (Cordes & Dougherty, 1993). Burnout also affects one's general well being. It is associated with decreased job satisfaction (Brewer & Clippard, 2002), is correlated with intent to quit (Maslach, Jackson, & Leiter, 1996), and predicts attrition (Drake & Yadama, 1996; Jackson, Schwab, & Schuler, 1986). Burnout interferes with teachers' value of helping their students learn. Teachers may lose sight of their professional motivations and may instead feel ineffective, overwhelmed, or embittered. For those who decide to leave the field, or transfer to another school, burnout also costs the educator a loss of specific training and perhaps a loss of initial career plans and goals (Boe, Bobbitt, & Cook, 1997).

System costs associated with burnout include absenteeism (Pullis, 1992), reduced job commitment (Billingsley & Cross, 1992; Leiter, 1991), decreased job performance (Wisniewski & Gargiulo, 1997), and increased rates of turnover. Teacher shortages are noted in 47 states in the United states for the 2010/2011 school year. These shortages

encompass a wide range of general education and special education needs (U.S. Department of Education, 2009). It is estimated that approximately one-third of new teachers resign within their first three years of teaching; nearly half depart within the first five years (Ingersoll, 2003). Those nearing retirement are also more apt to leave (Billingsley, 2002), and represent an ever-growing percentage of the current teacher workforce. For example, in 1996, 25 percent of teachers were aged fifty or older. In 2005, that number rose to 42 percent of teachers (Feistritzer, 2005). These statistics are doubly problematic. The system is losing professionals with the most potential longevity in the field and those with the most experience. The cost of specialized training to the system is substantial.

In sum, the occurrence of stress and burnout is well documented, with more than 20 years of data defining the problem, documenting individual and systemic costs, and forecasting its continued persistence. The bulk of the research is limited to self-report surveys and suggestions for intervention. Despite a clear call to reform, however, there is a paucity of intervention research. Of the existing published interventions, some insight is offered to possible solutions to the problem.

Stress Intervention Research with Teachers

There are several different types of interventions used to target job stress, burnout, and attrition for educators. Mentoring studies typically focus on pairing a beginning teacher with one who is more experienced in an effort to reduce job stress, expedite adjustment, increase collegial support, and decrease attrition rates (Hauser & Zimmerman, 1996; Kennedy & Burstein, 2004; Odell & Ferraro, 1992; White & Mason,

2006). Stress management groups rely on cognitive behavior techniques and focus on developing coping skills to actively combat stress (Cecil & Forman, 1990; Cheek, Bradley, Parr, & Lan, 2003; Forman, 1982; Jenkins & Calhoun, 1991; Sharp & Forman, 1985). Meditation training (Anderson, Levinson, Barker, & Kiewra, 1999; Winzelberg & Luskin, 1999) and multiple treatment components also aim to reduce stress and burnout. Studies utilizing multiple treatment components vary by study, and include counseling, hypnosis, rational emotive therapy, relaxation, nutrition, exercise, electronic networking, and staff development workshops, among others (Bamford, Grange, & Jones, 1990; Bertoch, Nielsen, Curley, & Borg, 1989; Westling, Herzog, Cooper-Duffy, Prohn, & Ray, 2006). General benefits garnered from existing interventions include stress reduction (Anderson et al., 1999; Bertoch et al., 1989; Cecil & Forman, 1990; Forman, 1982; Sharp & Forman, 1985; Winzelberg & Luskin, 1999), decreased symptoms of burnout (Cheek et al., 2003), reduced attrition rates (Kennedy & Burnstein, 2004), and increased feelings of personal accomplishment (Cheek et al., 2003). However, despite these encouraging results, significant limitations abound.

Design limitations. Of the various interventions for stress, burnout, and attrition in teachers, overarching design limitations exist. Small sample sizes ranging from eight to 25 are observed (Bamford et al., 1990; Bertoch et al., 1989; Cecil & Forman, 1990; Cheek et al., 2003; Forman, 1982; Winzelberg & Luskin, 1999) and may interfere with the ability to detect treatment gains. For example, Winzelberg and Luskin (1999) measured stress, anxiety and self-efficacy following a four-week-long meditation training. Fifteen participants comprised the treatment and the control groups. As

hypothesized, stress levels decreased in the treatment group, however, anxiety and self-efficacy scores did not significantly improve. These findings may more accurately reflect low power than inefficacy. Similarly, a decrease in self-reported stress was observed in Cecil and Forman's (1990) treatment group (n=17). Contrary to previous research, however, no significant change was noted in teacher classroom anxiety. Again, this unexpected finding may be an artifact of low power.

Inadequate treatment fidelity is also of concern. In a review of treatment integrity in educational research, Smith, Daunic, and Taylor (2007) stressed the importance of training and treatment delivery. These areas are of concern in some of the research on teacher stress, burnout and attrition. Methods were often vaguely outlined. For example, numerous studies failed to mention the number of service providers used, the qualifications of service providers, or the process of training them in the study protocols (Cecil & Forman, 1990; Cheek et al., 2003; Forman, 1982; Kennedy & Burstein, 2004; Sharp & Forman, 1985; White & Mason, 2006). Interviews and transcripts were analyzed with no mention of interrater reliability (Brownhill, Wilhelm & Watson, 2006), and no information was provided with regard to treatment adherence (Anderson et al., 1999; Cecil & Forman, 1990; Cheek et al., 2003; Forman, 1982; Kennedy & Burstein, 2004; Sharp & Forman, 1985). At times, flexibility of implementation was stressed over treatment adherence. For instance, Bamford et al. (1990) offered a stress management course and apparently allowed the treatment providers to create their own "warm and welcoming atmosphere" for the course. One provider used a room at a local teachers' center, while another "with an interest in suggestapedic techniques of supporting

learning” used music “designed for relaxation purposes.” Furthermore, in light of these differences, it does not appear that Bamford and colleagues examined potential outcome differences between providers. This lack of standardization is a threat to internal validity. White and Mason’s (2006) multi-school district mentoring program allowed for flexibility in the “frequency and type of in-service training provided, type of compensation offered to mentor teachers, and the degree of building administrator involvement” so that each district might focus on their own individual situations. While accommodations like these are conducive to real world settings and the demands facing schools (e.g. calendar planning, budgets), treatment variance introduces noise into an experiment that may confound results.

Without exception, stress and burnout interventions focus on symptom reduction (e.g. less stress, less burnout, lower attrition rates). Some studies look exclusively at symptom reduction (e.g. Anderson et al., 1999; Bamford et al. 1990; Bertoch et al., 1989; Cheek et al., 2003) rather than also promoting and measuring constructive variables. Several interventions, however, have focused on broader variables promoting behavioral effectiveness like job satisfaction (Cecil & Forman, 1990) and self-efficacy (Winzelberg & Luskin, 1999). In their qualitative study, Westling et al. (2006) discussed benefits attained by participants such as increased collegial interactions and support, improved feelings of personal and professional competence, and increased empathy and broader perspectives of one’s own situation. Other constructive variables that may relate to the experience of stress and burnout may also include general health functioning, general

well-being, job commitment level, values-consistent behavior, and work vitality, among others.

Theoretical limitations. In addition to limitations of research design, interventions for teacher stress and burnout are largely without a guiding theoretical framework. This is especially true for several multi-component studies. For example, Bamford et al. (1990) designed a treatment encompassing elements of counseling, rational emotive therapy, and hypnosis, yet failed to clearly state how these approaches are specifically related to stress and burnout. Likewise, Westling et al. (2006) offered a variety of support services, but did not specify a rationale for the selection of treatment components. Bertoch et al. (1989) pointed to the importance of treating stress through a holistic approach by incorporating “all processes previously found to be effective in reducing teacher stress.” It is unclear, however, how each of the treatment elements (relaxation, breathing, meditation, mindfulness, psychoeducation, nutrition, and exercise) interact to combat teacher stress. Theory serves to anchor individual research studies to a bigger picture. It functions as a guide wherein one may adapt current knowledge to new situations, develop new interventions, and help organize and incorporate large amounts of information (e.g. Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Kazdin, 2003). By failing to account for theorized mechanisms of change, research becomes focused on outcomes to the exclusion of processes, and limits the ability to generalize outcomes to other areas of research.

Existing interventions of job stress and burnout in teachers also target the content and occurrence of private experiences (e.g. thoughts and feelings) rather than their

function. For example, stress inoculation interventions (Cecil & Forman, 1990; Cheek et al., 2003; Sharp & Forman, 1985) targeted “irrational” beliefs and “inappropriate” emotions and attempted to replace them with prepared “stress scripts” that offer new cognitive, emotional and behavioral responses to stressful situations (Cecil & Forman, 1990). Likewise, Bamford et al. (1990), through rational emotive therapy (RET), linked the occurrence of stress to “faulty” perceptions of one’s situation, and attributed the solution to “replacing (perceptions) with more sensible ideas.” This line of reasoning presumes that something is wrong with a teacher’s private experiences. Yet, teachers face enormous responsibility, often in difficult circumstances. For example, a letter given to student teachers stated, “You are responsible for each child’s learning. Don’t let them down. Always be prepared... Always be patient... Show them lots of love everyday” (Bolton, 1997). These expectations, although well-intended, may be challenging to meet in the best of situations, and may set teachers up for feelings of inadequacy and failure. Additionally, with the organizational demands that educators face (e.g. paperwork, caseload, heterogeneity of caseload) the task of being a teacher contains inherent stressors and demands. Some may think “No one in my class is learning” (Farber, 1998), and feel “(I) am on (my) own” (Britt, 1997) or “It’s just too much” (Academy for Educational Development, 1995). Thus, when considering the job demands and climate in which many educators work, perhaps certain held beliefs and feelings are not “irrational” at all. Perhaps feeling frustrated and overwhelmed are appropriate reactions to the enormous tasks and stressors in which these individuals teach. In light of difficult teaching conditions, it is normal to experience a range of

emotions, and may be unrealistic to expect that negative thoughts and feelings may (or even should) be eradicated. Therefore, with an understanding that negative thoughts and feelings will surface, especially within a stressful working environment, it may be more useful to target the function of these thoughts rather than their form. Rather than challenging the content of negative thoughts and feelings, it may be more useful to ask whether one's response to negative private events interferes with stated personal and professional goals and values.

In consideration of the challenges faced by educators, the likely occurrence of negative thoughts and feelings, the consequent potential for distress due to job stress and burnout, and the personal dedication to helping students, current interventions overlook two critical elements that are highly applicable to educators: acceptance and values. A growing empirical base supports acceptance-based interventions such as dialectical behavior therapy (DBT; Linehan, 1993), mindfulness-based cognitive therapy (MBCT; Segal, Williams, & Teasdale, 2002), and acceptance and commitment therapy (ACT; Hayes, Strosahl et al., 1999), among others. Of these, ACT uniquely focuses on values identification, values clarification, and behavioral decisions linked to personal values. Thus, the struggle faced by special educators, a population defined by the value of helping others, may be best re-conceptualized through an ACT treatment model.

Acceptance and Commitment Therapy

ACT is a descendant of behavior analysis, and stems from the philosophical roots of functional contextualism and the language/cognition-based Relational Frame Theory (Gifford & Hayes, 1999; Hayes, Barnes-Holmes, & Roche, 2001). The overarching goal

of ACT is to promote psychological flexibility, “the ability to contact the present moment more fully as a conscious human being, and to change or persist in behavior when doing so serves valued ends” (Hayes, Luoma et al., 2006, p. 7). Psychological flexibility is linked with improved quality of life, enhanced physical health, reduced emotional reactivity, and improved mental health in clinical and community samples (Cook, 2004; Donaldson & Bond, 2004; McCracken & Vowles, 2007; Sloan, 2004). In the workplace, psychological flexibility is associated with innovative stress management and increased well-being, mental health, job performance and job satisfaction (Bond & Bunce, 2000; Bond & Bunce, 2003; Bond & Flaxman, 2006; Bond, Flaxman & Bunce, 2008). To date, no literature offers a discussion of burnout from the lens of psychological flexibility. However, some of the key features of burnout suggest psychological in-flexibility. For example, individuals experiencing high levels of burnout are apt to psychologically distance themselves (depersonalization) and try to avoid the discomfort of the present moment. Their experience of depleted personal and emotional resources (emotional exhaustion) may interfere with the perceived ability to pursue meaningful goals and values (low sense of personal accomplishment). No studies have examined teacher stress and burnout from an ACT perspective; however in employment settings, ACT treatments are linked to reductions in stress and burnout. In a population of counselors with high job demands, few resources, and little agency support, ACT treatment was associated with a reduction in personal biases and symptoms of burnout (Hayes, Bissett, Roget, Padilla, Kohlenberg, Fisher et al., 2004).

Experiential Avoidance

One key process within the ACT model that interferes with psychological flexibility is experiential avoidance. Experiential avoidance is an unwillingness to come into contact with negative private events (e.g. thoughts, feelings, bodily sensations, memories, etc.) and any attempt to avoid or control the content and frequency of these experiences (Chawla & Ostafin, 2007; Hayes & Gifford, 1997; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance may include the psychological distancing that is characteristic of the depersonalization component of burnout. For example, teachers may distance themselves by viewing students as objects, or adopt a callous disregard for others around them (Maslach, Jackson, & Leiter, 1996). Experiential avoidance may result from a variety of thoughts and feelings with respect to the workplace. For example, teachers may feel unappreciated and devalued at work, feel unqualified and overwhelmed, and have thoughts such as “I am ineffective,” “I refuse to play the hero anymore,” and “I get no respect” (Farber, 1998). Experiential avoidant responses to these experiences might involve spending great amounts of time and energy trying to “fix” a thought through “thinking positive,” arguing with or challenging thoughts, attempting self distraction, attempting to actively manage stress, and even transferring to another school or abandoning a chosen career. Teachers who spend increasing amounts of time and resources to change their thoughts and feelings may begin to deplete their personal resources and distract themselves from personal values such as helping students, making a difference, and professional development/growth.

Attempts to control undesirable private events may work in the short term.

Rationalizing thoughts and distraction may even be helpful at times. However, evidence suggests that efforts to repress undesired thoughts may be unworkable and even counterproductive. Initially, thought suppression appears to work. When asked to block out certain thoughts, individuals in thought suppression groups reported thinking less about the target stimulus compared to control groups. While these results seem promising for the effectiveness of suppression, post-suppression rebound effects have been observed in numerous studies (Clark, Ball & Pape, 1991; Wegner & Gold, 1995; Wegner, Schneider, Knutson, & McMahon, 1991; Wenzlaff, Wegner, & Klein, 1991). Efforts to eradicate unwanted thoughts, in fact, only seemed to make them more accessible and led to increases in the unwanted thoughts especially in times of stress (Wegner, 1994).

Considering the chronic environmental stressors in the education system, these data are especially relevant for teachers and suggests that efforts of cognitive avoidance may only amplify negative thoughts that may arise.

Similar results are also observed with regard to emotion suppression, another type of experiential avoidance. When experiencing stress, individuals were unable to control their emotions and even reported a reverse effect and experienced moods in an unintended direction (Wegner, Erber, & Zanakos, 1993). High emotional suppression is linked to increased experiences of negative emotions and fewer experiences of positive emotions (Gross & John, 2003). It is also associated with higher levels of anxiety and affective distress (Feldner, Zvolensky, Eifert, & Spira, 2003; Levitt, Brown, Orsillo, & Barlow, 2004), higher levels of panic and fear (Karekla, Forsyth, & Kelly, 2004),

impaired interpersonal functioning, and a decreased sense of well being (Gross & John, 2003).

The literature on thought suppression and emotion regulation underscores the futility of experientially avoidant behaviors. As indicated by this body of literature, control is the problem, rather than the solution (Hayes, Strosahl et al., 1999). ACT proposes a radically different approach to suffering caused by the avoidance of unwanted private events. Rather than attempting to rid oneself of negative thoughts and feelings, suffering is reduced through acceptance and a focus on valued living.

Acceptance

In ACT, the suffering associated with experiential avoidance is targeted through an emphasis of acceptance and valued living. Acceptance is defined as a willingness to experience private events fully, without attempt to alter or otherwise control their frequency or form, especially when these attempts cause psychological harm (Fletcher & Hayes, 2005). Acceptance is not a passive resignation to pain and suffering. Rather, within the ACT framework, pain and discomfort are viewed as normal, unavoidable consequences to being human. Although it is not possible to eradicate the content or occurrence of undesirable private experiences, it is possible to reduce suffering through acceptance. Without acceptance, individuals may create additional discomfort through their efforts to control undesirable thoughts and feelings. Hayes, Strosahl, and Wilson (1999) make a distinction between “clean” and “dirty” discomfort. Clean discomfort includes negative thoughts and feelings that arise from difficult situations and environments. Dirty discomfort stems from attempts to control negative thoughts and

feelings. In the case of special educators, negative thoughts and feelings are logical responses to an overtaxed educational system (clean discomfort). Additional discomfort may arise when educators expend their already limited time and resources toward managing negative thoughts and feelings (dirty discomfort). Dirty discomfort may account for the experience of burnout. Individual attempts to manage negative thoughts and feelings may place an additional burden on personal and emotional resources, and actually increase emotional exhaustion. Efforts to avoid disturbing thoughts and feelings as a means of managing stress may only deepen the experience of depersonalization. Self judgment with regard to frustrations and feelings of inadequacy may lead to rigid, persistent feelings of inefficacy. Emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment may be appropriately targeted through acceptance methods.

Acceptance is particularly indicated when change to external stressors is unlikely (Hayes, Bunting, Herbst, Bond, & Barnes-Holmes, 2006). No research has examined acceptance with teachers, however work-site interventions have shown promising results. Bond and Bunce (2000) conducted a work-place intervention designed to promote psychological acceptance of unpleasant thoughts and feelings. Improvements were noted in general medical health, depression scores and workplace innovation. Likewise, a 4-hour ACT intervention targeted workers at risk of disability leave and/or early retirement due to chronic stress and pain. Results indicated that individuals participating in the ACT intervention used significantly fewer sick days and medical resources compared to the treatment as usual group (Dahl, Wilson, & Nilsson, 2004).

Mindfulness. Mindfulness is a means of promoting acceptance. The goal of acceptance is to experience all private events without attempting to control their occurrence. Mindfulness promotes a non-evaluative awareness of, and contact with, the present moment. For example, consider a teacher who has experienced months of emotional outbursts from a student. A mindfulness approach would lead the teacher to a full awareness of the situation. Perhaps the teacher experiences physical tension in her shoulders during these times. Corresponding thoughts and feelings might include, “here we go again,” “this will never stop,” “I want to walk away,” “I am frustrated,” and “I am overwhelmed,” among others. Mindfulness exercises would lead the teacher to a non-judgmental awareness of these internal and external experiences. In so doing, the teacher would be less apt to fixate on undesirable experiences, and better able to focus on meaningful life goals and values. According to Kabat-Zinn (1994), “mindfulness provides a simple but powerful route for getting ourselves unstuck,” and connects individuals with the possibility of living a life of vitality. This is especially salient for educators who have fallen prey to the significant challenges and situational stressors in their workplace, experience significant levels of burnout, and have consequently become derailed from their stated value of helping children.

Mindfulness stems from ancient Eastern practice of meditation, yet it is nonreligious. Kabat-Zinn (1994) defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (p. 4). Mindfulness interventions have targeted individuals living with uncontrollable stressors. For example, McCracken, Gauntlett-Gilbert, & Vowles (2007) examined a hypothesized relationship

between mindfulness and well being (emotional, physical and social) of individuals with chronic pain. Results indicated a relationship between mindfulness and reduced levels of pain-related distress, depression, pain-related anxiety and increased functioning in activities of daily living (e.g. work, school, family, and social life). No studies to date have examined mindfulness meditation with teacher populations, however a concentration-based meditation training for student teachers showed decreases in emotional and behavioral manifestations of stress (Winzelberg & Luskin, 1999). It should be noted, however, that concentration-based meditation is a different construct from mindfulness. Winzelberg & Luskin (1999) taught participants to use sound and mantra (the repetition of a word or phrase) as a focal point. Individuals learned to disregard distracting thoughts and feelings during meditation. In contrast, mindfulness meditation includes bringing awareness and attention to ongoing internal and external sensations. For example, a teacher might focus awareness on having the thought, “I am overwhelmed,” the feeling of frustration, or physical tension, among many other possibilities.

Valued Living

Through acceptance, individuals experience increased psychological flexibility. Personal resources that were previously allotted to the management and avoidance of painful life experiences become free to allocate toward living in accordance with one’s personal values. Values are individually chosen life directions. They are the areas of life that personally matter. Commonly identified value domains include work, education, family, intimate relationships, parenting, friendship, recreation, spirituality, citizenship,

and physical self-care (Wilson, Sandoz, Kitchens, & Roberts, in press). Values tend to persist and remain important over extended periods of time (Hayes, Strosahl et al., 1999; Meglino & Ravlin, 1998; Rokeach, 1973). Once values are identified and clarified, goals may be developed that lead in the direction of stated values (Hayes, 2004). Values are distinct from goals. Goals move one toward a stated value. They are concrete in nature and can reach a point of completion. Unlike goals, values are abstract constructs. There is no definitive end point; a value is never complete or finished. For example, a teacher may value “making a difference in the life of a child” or “being a well regarded employee.” Goals in the service of these values may include teaching a child to read at grade level or meeting benchmarks on class standardized tests. Barriers to goal achievement, either internal or external, may also be present. Barriers may include fusion with negative thoughts and feelings, avoidant behaviors, or environmental hurdles. External challenges like class size and paperwork demands may be difficult to change, but barriers related to internal experiences may be targeted through acceptance. Undesirable thoughts and feelings may be more willingly endured, and ultimately become less invasive when one is anchored to personal meaning found through values. Values provide a more stable guidance for life direction than thoughts and feelings. They may motivate committed action and satisfaction in the presence of difficult circumstances, and even in the presence of undesirable thoughts and feelings.

Values provide an essential component for promoting job satisfaction in the midst of high-stress job demands. Research indicates that burnout is inversely related to job satisfaction (Cordes & Dougherty, 1993; Lee & Ashforth, 1996; Maslach & Jackson,

1981). Certainly, this relationship seems sensible; it is reasonable that individuals who feel emotionally drained, used up and frustrated with regard to their work will also experience low job satisfaction. However, Stalker, Mandell, Frensch, Harvey, & Wright (2007) discovered an unexpected relationship between the emotional exhaustion component of burnout and job satisfaction in a group of 220 child welfare workers. Seventy-six percent of participants scored in the moderate to high range of emotional exhaustion on the Maslach Burnout Inventory. Rather than reporting low job satisfaction, however, 90% of the participants indicated moderate to high job satisfaction.

The simultaneous occurrence of high emotional exhaustion and relatively high job satisfaction prompted Stalker and colleagues (2007) to review the child welfare literature for similar findings. Only a handful of quantitative studies assessed both emotional exhaustion and job satisfaction, and most were directed by different research questions. However, one study did note similar results. Silver, Poulin, and Manning (1997) indicated higher than expected job satisfaction concurrent with high levels of emotional exhaustion. Similarly, Anderson (2000) noted a high number of child protection workers who scored high on emotional exhaustion, but also scored unexpectedly high on feelings of personal accomplishment. Stalker and colleagues attributed these findings to a “sense of mission or commitment to the purpose of child welfare and to making a difference with children.”

Indeed, it appears that personal values may mediate the relationship between the emotional exhaustion component of burnout and job satisfaction, and may also impact job retention rates. According to Reagh (1994),

“...participants all reported experiencing burnout at some level....(They) obviously get something for themselves from the work they do, yet they must remain ever vigilant lest they lose sight of the meaning and significance in their work and tip the balance to the other side. For them, burning out is just one small step away from staying.”

Landsman (2001) developed a causal model of organizational and occupational commitment. Service orientation was a significant predictor of job satisfaction and occupational commitment. Service orientation was described as an “altruistic need to serve others” or “a sense of calling” (p. 395; Landsman, 2001). Vinokur-Kaplan (1991) surveyed social workers one year post-graduation and noted job satisfaction among 66% of participants. Factors contributing to job satisfaction included work with clients (85%) and feelings of accomplishment (65%). Several qualitative studies have also explored factors related to job retention among social service workers. A number of the retention factors are consistent with personal values. These included: finding personal meaning through work, personal and professional commitment to one’s occupation and one’s clients, a desire to make a difference, a priority of working with children, a desire to help others, and a belief in the importance of child protection (Ellett, Ellis, Westbrook, & Dews, 2007; Reagh, 1994; Rycraft, 1994). According to one participant, “I’m dedicated and want to see these kids have a chance of making it. It may be the hardest job I have ever had, but it is also the most important job I will ever have.”

While the research on the possible relationship between burnout, job satisfaction, and job retention focused on child welfare workers, a number of similarities exist

between this population and teachers. Both groups tend to work in stressful environments, juggle high caseloads, meet strict paperwork and regulatory demands, and work with at-risk populations. It appears that both groups also tend to place a high value on helping others. Additionally, although personal values have not been researched with regard to burnout, job satisfaction or job retention, existing research seems to support a relationship worthy of future research and discussion. To be clear, however, this information is not presented to suggest that individuals should be able to deal with job difficulties if they “care enough,” but rather to highlight the buffering effect that values may have on the experience of burnout, job satisfaction and job retention, and offer guidance with regard to intervention possibilities.

The present study examined the effects of an ACT workshop on stress and burnout in teachers compared to a wait list control group. Treatment effects were evaluated at three months post workshop. Additionally, this study addressed many of the shortcomings in the literature on teacher stress and burnout. Namely, a sufficient participant population was recruited. An emphasis was placed on treatment fidelity, including fidelity checks and a clearly developed and replicable treatment protocol. Constructive personal and professional outcomes were measured in addition to negative symptom reduction. Additionally, this intervention was developed from a clear theoretical framework. Due to the inherent stressors within the teaching profession, this intervention focused on acceptance, rather than restructuring the content of teacher thoughts and feelings. Valued living was also emphasized. Values provide direction and motivation in the midst of life difficulties (Wilson & Murrell, 2004). Many educators enter the field to

make a difference in the education of their students. In light of this, the current intervention aimed to reduce the experience of burnout by helping teachers reconnect with personal values underlying their work.

Hypotheses

1. It is hypothesized that participants in the Acceptance and Commitment Treatment (ACT) workshop will show reductions in burnout symptoms compared to a control group.
2. It is hypothesized that participants in the ACT workshop will show decreases in teacher stress compared to a control group.
3. It is hypothesized that participants who have completed the ACT workshop will report greater acceptance of undesirable thoughts and feelings compared to a control group.
4. It is hypothesized that participants in the ACT workshop will reconnect with a personal value of helping others as evidenced by an increase in value scores, compared to a control group.
5. It is hypothesized that changes in outcome variables will be mediated by the acceptance of undesirable thoughts and feelings.
6. It is hypothesized that changes in outcome variables will be mediated by high career value scores.

Method

Participants

Fifty-eight full-time teachers of elementary or secondary-school-aged students were recruited from public and private schools in the St. Louis metropolitan area to attend a professional development workshop targeting teacher burnout. Of the 58 teachers who registered for the workshop, 39 completed the workshop and all three questionnaire packets. Four participants failed to return complete measures within the questionnaire packets. The resulting sample consisted of 29 females and 6 males with a mean age of 47 years. Twenty-three participants were Caucasian, 10 African American, and two failed to provide ethnic information. Seventeen were married (48.6%) and 18 were not married (51.4%). Seventeen held a bachelor's degree or less (48.6%) and 18 held a masters degree or more (51.4%). Participants had taught for a mean of 17 years, ranging from one to 39 years. On average, they taught at their current school for 8 years (ranging from one to 34 years). The average anticipated retirement age was 63 years old, ranging from 50 to 70 years of age. Thirteen taught in private school settings (37.1%) and 22 taught in public school settings (62.9%). Twenty-two taught in an urban school setting (62.9%), 11 taught in suburban schools (31.4%), and 2 failed to provide information on school setting. Nineteen taught general education (54.3%) and 16 taught special education (45.7%).

Measures

Demographic information form. Participants were asked to report their gender, age, ethnic background, highest level of education, number of years teaching, number of

years teaching in current position, anticipated retirement age, type of school employment (e.g. public or private), and grade level of current students (see Appendix A).

Stress. The Index of Teaching Stress (ITS; Abidin, Green & Konold, 2004) is a 90-item questionnaire that measures the stress a teacher experiences through interactions with a specific student. Respondents are asked to report on the degree to which a given situation is stressful or frustrating on a five-point Likert-scale. Answers range from 1 (never stressful) to 5 (very often stressful). Higher scores reflect higher levels of stress. Teachers were asked to think of their most challenging student when filling out the questionnaire. Students were identified by first name only. No other demographic data was collected for the student. Teachers filled out the last 45 questions of the ITS which specifically measure teacher characteristics of: self-perception/self-expectation, teacher sense of competence/need for support, teaching satisfaction, disruption of teaching process, and frustration of working with parents. Previous research for the Teacher Characteristics domain of the ITS indicated an alpha coefficient of .97, and test-retest reliability of .70 at a one month interval (Abidin, Green & Konold, 2004). Additionally, construct validity was evidenced through convergence with measures of teachers' health, child behavior checklists, and observations of teacher behavior (Abidin, Green & Konold, 2004). Interitem reliability for this study was $\alpha = .97$.

Burnout. The Maslach Burnout Inventory (MBI – Educators Survey, Third Edition; Maslach, Jackson & Leiter, 1996) is the most widely used measure of burnout (Byrne, 1991). The MBI is a 22-item self-report questionnaire that measures the frequency of burnout symptoms on a seven-point Likert scale (0 = never; 6 = every day).

Examples include, “I feel I treat some students as if they were impersonal objects” and “I feel emotionally drained from my work.” Confirmatory factor analysis supports the MBI’s three subscales: emotional exhaustion, depersonalization and personal accomplishment. Emotional exhaustion scores of 27 or greater, depersonalization scores of 14 or greater, and personal accomplishment scores of 30 or lower reflect high levels of burnout. Internal consistency for emotional exhaustion, depersonalization and personal accomplishment were .90, .79, and .71, respectively (Maslach, Jackson & Leiter, 1996). Convergent validity has been demonstrated through observer ratings and significant correlations between burnout symptoms and low personal growth, low meaningfulness at work and high intent to quit (Maslach, Jackson & Leiter, 1996). Discriminant validity between burnout symptoms, job satisfaction, and depression has also been supported. (Maslach, Jackson & Leiter, 1996) Interitem reliability for this study was $\alpha = .90$.

Acceptance. The Acceptance and Action Questionnaire – II (AAQ-II; Bond, Hayes, Baer, Carpenter, Orcutt, Waltz, & Zettle, Submitted) is a measure of psychological flexibility which includes characteristics of acceptance and low experiential avoidance. The AAQ-II is a 10-item self-administered scale, where individuals rate statements on a seven-point Likert scale (1 = never true; 7 = always true). Test items include statements such as “It seems like most people are handling their lives better than I am.” Higher scores on the AAQ-II indicate higher levels of psychological flexibility. The AAQ-II was normed on more than 3,000 individuals from university and community samples. The mean alpha coefficient across seven samples is .83, with a range of .76 to .87. Test-retest reliability from a community sample was .80 at three months and .78 at one year.

Convergent validity was demonstrated between psychological flexibility and measures of depression, anxiety, stress, and psychological distress. The AAQ-II also demonstrated significant predictive validity for increased workplace productivity, lower absence rates and a greater ability to learn new tasks in the workplace. The AAQ-II has not been found to be significantly related to job satisfaction ($r = .10$) or intent to quit ($r = .13$) (Bond, et al., submitted). Interitem reliability for this study was $\alpha = .78$.

Values. The Personal Values Questionnaire – Work/Career domain (Blackledge & Ciarrochi, 2006) is a nine-item measure where individuals are asked to identify a specific work/career value. Questions are designed to measure the relative importance and level of commitment to the stated value. Additionally, individuals answer questions with regard to how effectively they are pursuing their stated value and whether or not they desire to improve personal progress toward the value. Questions are answered in a 5-point Likert format. Many education teachers reportedly entered their profession with a desire to make a difference in the lives of students (Crutchfield, 1997). As such, teachers answered questions regarding the value of “helping others.” Interitem reliability for this study was $\alpha = .54$.

Procedure

Teachers were invited to participate in a new professional development workshop for teachers titled, “Reclaiming the Vision: Keys to Battling Burnout.” The workshop was offered free of charge. Additionally, participants received a complimentary lunch, a certificate of professional development hours, and a total of \$40 for their time completing questionnaires across three different time periods. To accommodate the schedules of

various school districts, two workshops were offered during February, and two were offered in May. Initial plans were to randomly assign participants to either an experimental group (February) or control group (May) workshop. Difficulty in obtaining sufficient sample size dictated an assignment to group based on schedule availability. Participants in the experimental workshops completed questionnaires upon arrival and upon completion of the workshop. Experimental workshop participants were also mailed questionnaires three months following the workshop. Individuals who participated in the control workshops received initial questionnaires via mail in February. Additionally, they completed questionnaires upon arrival and at the end of the May workshop (Appendix B).

Workshop

The Acceptance and Commitment Training (ACT) workshop was developed from Bond's (2005) ACT for Stress employment workshops and Greco's (2005) ACT for Teens protocol for adolescents with chronic medical conditions. The six-hour ACT workshop was designed to provide information on the prevalence of stress and burnout within the education field, teach participants how to identify their personal and professional challenges, and teach participants how to willingly experience and accept undesirable thoughts and feelings without trying to control them. Additionally, the protocol focused on values clarification and committed action toward one's stated values. Consistent with ACT interventions, the workshops included a number of experiential exercises and metaphors to illustrate and teach key concepts. Participants in the experimental group also received emails four and eight weeks after their workshop attendance reminding them of key acceptance and values skills.

Results

Preliminary Analyses

Multivariate Analysis of Variance (MANOVA) was used for primary analyses. The assumption of homoscedasticity was upheld, Box's M , $F = .92$; $p = 0.51$, decreasing the likelihood of Type I errors (Garson, 2009; Tabachnick & Fidell, 2001). Additionally, assumptions of linearity and equality of error variances were also met. The assumption of sphericity, however, was violated, Bartlett's Test of Sphericity, $p < 0.001$, indicating use of the Geisser-Greenhouse correction. There were no univariate outliers as indicated by Mahalanobis Distance and Cook's Distance values. This, combined with a sample size greater than 20, indicated that the MANOVA was robust to violations of normality (Garson, 2009). Thus, no data transformations were necessary.

A priori power and effect size analysis through G*Power (medium effect size, power = .80, alpha = .05) indicated a sample size of 34 (Buchner, Erdfelder, Faul, & Lang, 1992-2006). The main analysis included 35 participants, meeting this criteria. For MANOVA, each cell must also have more cases than there are dependent variables (Garson, 2009). Cell sizes ranged from 13 to 20, so no cell contained fewer cases than the number of dependent variables.

Pearson Chi-Square analyses and paired samples t-tests were run to test for differences between experimental and control groups on demographic factors of gender, ethnicity, marital status, education level, public/private school, urban/suburban school, general education/special education, teacher's age, number of years teaching, number of

years at current school, and anticipated retirement age. No significant demographic differences were noted between experimental or control groups.

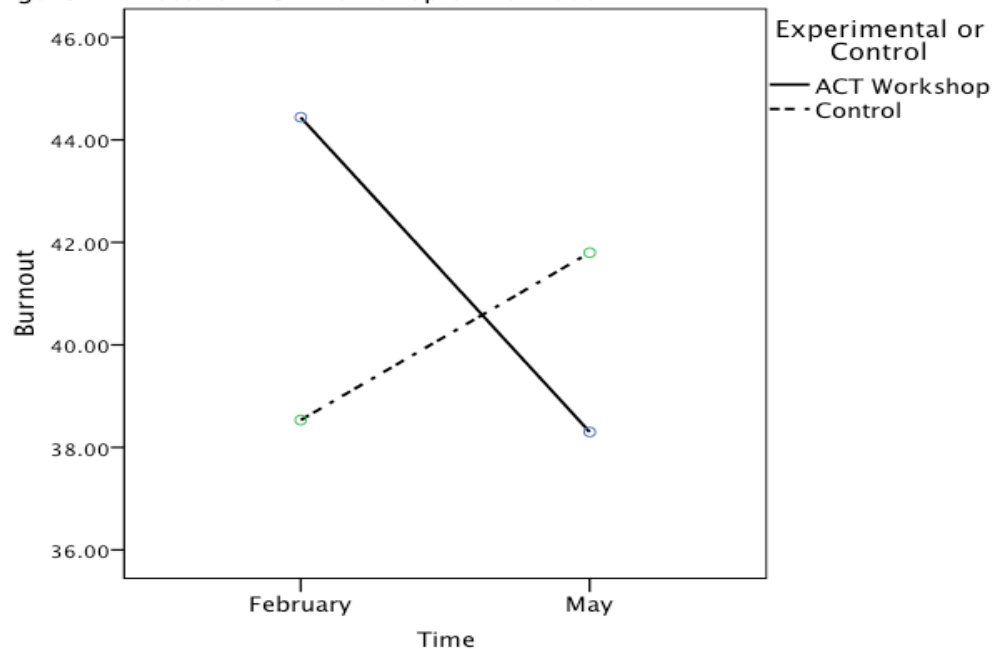
Independent samples t-tests were also run to test for demographic differences on the dependent variables of stress (ITS) and burnout (MBI). Significant differences in stress and burnout scores were observed for ethnicity. African-American teachers had significantly lower stress and burnout scores compared to Caucasian teachers. These differences were observed in pre-workshop scores (stress, $t(31) = -2.34, p = .03$; burnout, $t(31) = -2.13, p = .04$) and in three-month follow up scores (stress, $t(31) = -3.01, p = .01$; burnout, $t(31) = -2.17, p = .04$). Although the relationships between ethnicity and the dependent variables were significant, two participants failed to endorse an ethnicity. These missing data prevented the inclusion of ethnicity as a covariate, however, post hoc analyses were run to determine if results were altered by the inclusion of ethnicity as a covariate.

To ensure the treatment fidelity of the intervention, elements of workshop protocol were listed on a 91-item checklist (Appendix C). Prior to the initial workshop, the primary investigator reviewed the protocol and the checklist with two research assistants. For the experimental groups, each research assistant observed the workshop and completed the checklist independently. For the first workshop date, ratings of 100% and 99% accuracy were obtained on the checklists. For the second workshop date, ratings of 100% accuracy were given by both raters.

Main Analyses

Hypothesis I and II predicted that participants in the ACT workshop would show decreases in teacher burnout and reductions in stress three months after the completion of the workshop compared to a control group. These hypotheses were tested using a 2 (Group) x 2 (Time) repeated measures MANOVA with burnout (MBI) and stress (ITS) as dependent variables. A significant Group x Time interaction was observed, $F(2,33) = 4.38, p = .021, \eta^2_p = .22$. At the univariate level, a significant Group X Time interaction was observed for burnout, $F(1,33) = 6.03, p = .019, \eta^2_p = .16$, indicating that Hypothesis I was confirmed. At three-month follow-up, burnout levels decreased for the experimental group, yet increased for the control group (see Figure 1). Significance was not found, however, at the univariate level for stress. Hypothesis II was not supported; three months following the workshop, stress scores for the experimental and control groups were not significantly different (see Table 1).

Figure 1. Effects of ACT Workshop on Burnout



Hypothesis III, which predicted that participants who completed the ACT workshop would report greater acceptance of undesirable thoughts and feelings, was tested with an ANCOVA, with the initial acceptance score as a covariate. The results were significant, $F(2,32) = 6.47, p = .016, \eta^2_p = .17$; at three months following the workshop, the experimental group had higher acceptance scores ($M = 57.60$) compared to the control group ($M = 51.80$), who had yet to participate in the workshop (see Table 1).

Table 1

Means and Standard Deviations for Outcome and Covariate Variables

Variable	ACT		Control	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
Burnout				
Time 1	44.44	20.79	38.53	19.08
Time 2	38.30	22.59	41.80	19.80
Stress				
Time 1	109.39	36.50	107.83	35.23
Time 2	104.20	36.86	99.38	35.91
Acceptance				
Time 1	56.80	7.65	55.27	8.55
Time 2	57.60	6.89	51.80	8.97
Values				
Time 1	33.30	3.88	34.05	2.64
Time 2	33.16	3.79	32.67	2.85

Note. ACT = Acceptance and Commitment Therapy group; Time 1 = February pre-workshop scores (ACT and Control groups); Time 2 = May post-workshop scores (ACT group), May pre-workshop scores (Control group)

Hypothesis IV predicted that participants in the experimental group would reconnect with a personal value of helping others as evidenced by an increase in value scores. This hypothesis was tested with an ANCOVA, with initial values scores as a covariate. The ANCOVA was non-significant, $F(2,31) = .99, p = .33, \eta^2_p = .03$. Three months following the workshop, values scores of experimental and control groups were not significantly different (see Table 1).

Hypotheses V predicted that the relationship between treatment outcomes for burnout and stress would be mediated by the acceptance of undesirable thoughts and feelings. To test Hypothesis V, a 2 (Group) x 2 (Time) repeated measures MANOVA with burnout (MBI) as the dependent variable was compared to a 2 (Group) x 2 (Time) MANCOVA with acceptance (AAQ-II Post) entered as a covariate. A reduction in effect size would suggest that acceptance explains a portion of the variance in the dependent variables (Pedhazur & Schmelkin, 1991). Effect sizes of Group x Time interaction at the univariate level for burnout decreased from an initial effect size of 0.16 (η^2_p) in the original MANOVA to 0.09 (η^2_p) in the MANCOVA. This represents a 42% reduction in effect size. Thus, Hypothesis V is confirmed; acceptance accounts for a significant portion of the variance of burnout scores (see Table 2).

Hypothesis VI predicted that the relationship between treatment outcomes for stress and burnout would be mediated by career value scores. A 2 (Group) x 2 (Time) repeated measures MANOVA with burnout (MBI) as the dependent variables was compared to a 2 (Group) x 2 (Time) MANCOVA with values (PVQ-post) entered as a covariate. Contrary to the hypothesis, effect sizes of Group x Time interaction increased

from .16 to .17 (η^2_p); values did not explain a portion of the variance in the dependent variables.

Table 2

Within-Group Effects Before and After Acceptance Entered as Covariate

Variable	Effect	F ratio	ES (η^2_p)	df	% reduction in effect size
Burnout	T	6.03*	0.16	1, 33	
	T + Acceptance	3.17	0.09	1, 32	42%

Note. ES = effect size; T = time; T + Acceptance = time with acceptance as a covariate; * $p < .05$.

Post Hoc Analyses

In addition to the long-term effects of the workshop, differences in stress and burnout scores were measured immediately after the workshop for both experimental and control groups. A repeated-measures MANOVA was run to determine if significant reductions in teacher stress (ITS) and burnout (MBI) occurred immediately after participating in the day-long workshop. A significant main effect for time was observed, $F(2,36) = 6.80, p = .003, \eta^2_p = .27$. Significant changes were observed for both stress, $F(1,37) = 8.05, p = .01, \eta^2_p = .18$, and burnout, $F(1,37) = 10.89, p = .002, \eta^2_p = .23$. Thus, significant reductions of stress and burnout occurred immediately following the ACT workshop (see Table 3).

Preliminary analyses revealed ethnic differences on stress and burnout scores. Due to two missing data points, however, ethnicity was precluded as a possible covariate in the main analyses. To review the possible influence of ethnicity on treatment outcomes, analyses were re-run with ethnicity as a covariate, minus the two participants

who failed to include ethnicity on their demographic forms. Results were generally congruent with the previously stated findings. With ethnicity as a covariate, the experimental group had lower burnout scores compared to the control group, $F(2,29) = 8.39, p = .01, \eta^2_p = .22$. Acceptance was also a significant mediator in the relationship between treatment and lower burnout scores. Effect sizes of Group x Time interaction decreased from an initial effect size of .31 (η^2_p) in the original MANCOVA with ethnicity as the sole covariate to .22 (η^2_p) in the MANCOVA with ethnicity and acceptance (AAQ-II Post) as the covariates. This represents a 29% reduction in effect size. Contrary to the initial findings of Hypothesis III, differences were noted with changes in acceptance scores for workshop participants. With ethnicity as a covariate, there were no significant differences between experimental or control group acceptance scores, $F(1,32) = 3.99, p = .06, \eta^2_p = .12$.

Table 3

Means and Standard Deviations for the Outcome Variables Immediately Preceding, and Immediately Following the Workshop

Variable	Pre-Workshop		Post-Workshop	
	Mean	SD	Mean	SD
Burnout	43.31	20.11	36.77	20.83
Stress	105.10	36.06	96.94	37.34

Discussion

A majority of the research on teacher stress and burnout has focused on defining and identifying problems; teacher stressors are well documented, yet the stressors remain. Government policies continue to change, low student motivation persists, paperwork continues to grow, and time pressures increase. In sum, we know that teachers work in chronically high stress jobs and are at risk for professional burnout, yet few have used these data to create programs that offer effective solutions. Some research in teacher stress management has suggested possibilities for symptom alleviation, but these studies are limited in terms of research design and are largely without a guiding theoretical framework.

The present study proposed a viable intervention that acknowledges the persistent nature of teacher stressors and offers a theoretically grounded protocol to reduce teacher burnout. Acceptance and Commitment Therapy (ACT) is a theoretically-based approach to treatment that focuses on acceptance and values clarification, two components well-suited for chronically stressed educators. The current study consisted of a one day-six-hour-long professional development workshop in a wait-list control design format, and examined the impact of acceptance and values on the problem of teacher stress and burnout.

It was predicted that three months following the workshop, teachers in the experimental group would endorse lower levels of stress and burnout compared to a control group. Teachers in the experimental group had significantly lower burnout scores compared to the control group. Considering the relatively small sample size (N=35), the

brief nature of the intervention (six hours), and the three-month follow up, these results are striking and suggest that within the context of the current study, ACT is a robust treatment for burnout. These findings add to previous research which has revealed significant relationships between ACT interventions and improvements in workplace stress management and burnout (Bond & Bunce, 2000; Hayes, Bissett, et al., 2004). Results of the current study add to ACT's efficacy in the workplace and support this approach as a viable means of reducing teacher burnout.

Contrary to the improvements of burnout symptoms, stress scores did not significantly improve over time. The differential outcomes for burnout and stress scores are, in fact, quite consistent with ACT. ACT proposes that negative thoughts and feelings due to external stressors are understandable and unavoidable. Burnout is more likely to occur, not because of the presence of stressors, but rather when individuals spend significant time and resources trying to manage their stress. Therefore, ACT supports the reduction of burnout independent of the presence of chronic stressors. Results of the current study support this theory; even in the presence of stress, burnout symptoms were reduced. This is especially promising information for teachers and other professionals who work in inherently stressful environments. Certainly, efforts to reduce the source of teacher stressors where possible are important to increased teacher well-being (Hallinger, 2003). The teaching profession, however well supported, will always include some amount of stress. There will always be some level of government regulation, administrative demands, and student behavior problems, among others. This study offers a feasible option for diminishing teacher burnout.

In addition to the long term benefits, teacher burnout and stress scores were significantly reduced immediately following the workshop. Although these results were not sustained for stress three-month's later, this information suggests some immediate benefits from workshop participation. It's possible that teachers benefitted from the opportunity to share their struggles and hear of similar predicaments from others. These findings may also reflect immediate effects of the components of the workshop. Additional research is warranted to further understand this finding.

Acceptance is defined as the willingness to experience one's private events without attempting to control them (Fletcher & Hayes, 2005). It was expected that teachers' acceptance of undesirable thoughts and feelings would increase after the ACT workshop. Indeed, greater levels of acceptance were noted three months after the workshop compared to a control group. Workshop attendees showed an increased ability to be present with difficult thoughts and feelings rather than engage in efforts to distract themselves from or avoid these undesirable experiences. Notably, acceptance increased even when stress levels persisted. These results suggest that acceptance is a teachable skill, in the presence of stressors, in a short time period. That these improved scores were noted three months following a one-day workshop speaks again to the strength of this ACT intervention. These results are consistent with other workplace interventions with customer service representatives and employees of a large media organization (Bond & Bunce, 2000; Bond & Bunce, 2003).

It was also hypothesized that workshop participants would reconnect with a value of helping others. Results failed to support an increase in helping values. This may be due

to the variable's characteristics or in the ability to accurately measure it. First, values tend to be persistent and are less likely to change over time (Hayes, Strosahl et al., 1999; Meglino & Ravlin, 1998; Rokeach, 1973). As such, it may be unrealistic to expect a six-hour intervention to elicit significant change in a value domain. Secondly, the Personal Values Questionnaire (PVQ) may not have effectively measured values clarification of "helping others." The PVQ has generally been used as a clinical instrument and lacks psychometric data. The measure was designed for individuals to determine and write in their own personal value. For the purposes of this study, the value "helping others" was chosen. Despite the PVQ's limitations, this measure was selected because there were no validated assessment tools that solely measured the value of helping others. Measures of altruism were considered, however most were embedded in considerably lengthy questionnaires. Due to teacher time constraints, these measures were not deemed appropriate for the current study. Based on these constraints, however, it is impossible to determine the role that helping values may play with regard to stress and burnout.

Inasmuch as burnout scores were significantly reduced by the ACT workshop, it is also important to explore underlying mechanisms of change. Based on ACT, the ability to accept undesirable thoughts and feelings, rather than engage and struggle with them, reduces suffering and increases psychological well-being. It was therefore predicted that acceptance would significantly mediate the relationship between treatment and outcome, by accounting for significant variance in the changes of stress and burnout scores. Acceptance was found to be a significant mediator, accounting for 42% of the variance in treatment outcomes for burnout. Individuals who were able to accept unpleasant

thoughts, feelings, and sensations were more likely to have lower burnout scores after the workshop compared to individuals with lower acceptance. In addition to determining that the current intervention was effective in reducing teacher burnout, this finding is rooted in a theoretical explanation. Unlike previous multi-component studies of teacher stress and burnout, where change was observed without an understanding of essential intervention components, the current study adds data to an established theory and affirms ACT's effectiveness in eliciting change. These findings add to other research confirming acceptance as a mediator for increased well being and improved mental health, quality of life, and job innovation (Bond & Bunce, 2000; Bond & Bunce, 2003; Lundgren, Dahl & Hayes, 2008). Values was also examined as a possible mediating variable, although results failed to support this hypothesis. Again, problems with the measurement of helping values may have interfered with the ability to detect a relationship between values and treatment outcome. Due to such complications, further research is warranted.

Limitations and Future Research

In addition to the limitations surrounding values measurement, significant challenges emerged with regard to participant recruitment. Although the participants in this study represented a fair range of diversity among age, race, school setting (public/private, urban/suburban), this participant group was small and self-selected largely via word of mouth. The workshops were originally offered to administrators as a free professional development seminar that could be provided on school grounds during professional development days. For various reasons, no districts were open to this option. Administrators were later asked to promote the workshop, which would be held at a local

university, to their teachers. Again, administrators were reluctant to participate. Several districts acknowledged the problem of burnout as a whole, but stated that their teachers did not experience burnout. As we spoke to teachers, there seemed to be a disconnect between administrators' and teachers' perceptions of burnout. Indeed, although there may be other factors contributing to the difficulty with participant recruitment through schools, administrators in general seemed hesitant to discuss the issue of teacher burnout and acknowledge stress-related challenges for their teachers. Teachers, however, seemed to recognize the experience of burnout within their profession.

Challenges also arose with regard to random assignment to experimental or control groups. Due to participant recruitment problems, teachers were assigned to a workshop based on their schedule availability. Perhaps teachers who chose earlier workshops were distinct from those who chose later workshops. Although preliminary analyses did not reveal differences between experimental and control groups, it is possible that there were other unmeasured group differences. The setbacks with regard to participant recruitment and randomization raises questions of generalizability to other teacher populations.

As previously mentioned, problems also arose with regard to adequately measuring and understanding the role that workplace helping values has on stress and burnout. Measurement issues severely impinged on the ability to detect the hypothesized influence of work values on treatment outcomes. This limitation is not easily remedied; a well defined and psychometrically sound measure of work values is needed before this question may be most aptly addressed. Also, as suggested in the literature, values are

stable domains that may be largely resistant to change (Hayes, Strosahl et al., 1999; Meglino & Ravlin, 1998). The current study aimed to help participants clarify their values as observed by higher ratings on the values scale. Perhaps values clarification is not easily or quickly accomplished. Again, a better understanding of the construct of work values, specifically helping values and its sturdiness is warranted.

Current results support ACT as a promising treatment of burnout, however due to the wait-list control design, it is unknown how ACT compares to other stress interventions for teachers. Research in other occupational settings indicates that ACT compares favorably to organizational stress management programs (Bond & Bunce, 2000), with positive outcomes in the ACT group actually increasing with time compared to other stress management programs. In light of this information, longitudinal ACT research with teachers is recommended. In addition to the ability to observe outcomes over a longer period of time, longitudinal research would allow for the possibility of investigating the impact of ACT on other variables related to burnout including attrition, school transfers, and absence rates, among others.

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Appendix A



University of Missouri St. Louis Demographic Information Form

Participant #: _____

Personal Information:

Gender: Female Male

Age: _____

Ethnic Background: African American
 Asian
 Caucasian
 Hispanic
 Other (please specify)

Marital Status: Single Married
 Divorced

Highest Education Level Achieved: High School
 Associate's
 Degree Bachelor's
 Degree Master's
 Degree M.A. + 60
 Doctoral
 Degree

Employment Information:

Number of years teaching: _____

Currently teaching grade(s): _____

Number of years at current school: _____

Anticipated retirement age: _____

Teaching at: Private School
 Public School

School Demographics: Urban School

- Student Demographics:
- Rural School
 - Suburban School
 - General Education
 - Resource Room
 - Self-Contained Room
 - Special Education School
- Appendix B

Assessment Schedule

	Experimental Group	Control Group
Time 1	Immediately before February workshop	February (mailed packet)
Time 2	Immediately following February workshop	Immediately before May workshop
Time 3	May (mailed packet)	Immediately following May workshop

Appendix C

Reclaiming the Vision Checklist

Group:
Therapists:
Facilitator(s):

- _____ Reviewed Confidentiality expectations
- _____ Introduced Stress and its Effects
- _____ Began Creative Hopelessness
- _____ Asked teachers about their symptoms and signs of stress
- _____ Distinguished inside vs. outside skin
- _____ Identified struggle inside and outside skin
- _____ Introduced idea of the Masks We Wear
- _____ Reviewed information on Stress and Education
- _____ Asked teachers for feedback
- _____ Reviewed causes of work stress (individual and
organizational)
- _____ Introduced idea of stress as a process in each of us
- _____ Introduced idea that stress is not “the” problem
- _____ Presented overflowing sink metaphor
- _____ Introduced concept that attempts to control and avoid neg. thoughts/
feelings are problematic
- _____ Revisited Creative Hopelessness (CH) Circle
- _____ Identified workability of control strategies

	_____	Distinguished between short- and long-term workability
	_____	Began to identify costs of control (linked to values)
	_____	Labeled inside circle as “Pain”
	_____	Labeled control strategies as “Control”
	_____	Checked in with teacher’s actual experience throughout CH exercise
	_____	Introduced notion of “Hiding Out”
	_____	Used Shield and Mask metaphors
out	_____	Group members shared examples of when/how they hide
	_____	Linked “hiding out” to CH and added to control strategies
	_____	Explored areas of life we can and cannot control
	_____	Introduced Child in Hold metaphor
	_____	Considered the possibility that CONTROL is the problem
	_____	Distinguished between mind and direct experience
	_____	Chinese Finger Trap to illustrate how our efforts to minimize discomfort might actually increase it.
our	_____	Introduced possibility that world works differently beneath skin
feelings	_____	Discussed rebound effects of avoiding thoughts and
	_____	Example of inability to control thoughts (Chocolate Cake)
reactions	_____	Tied Chocolate Cake example to ability to control stress

feelings	_____	Polygraph Metaphor to emphasize uncontrollability of
(if	_____	In the world inside our skin, perhaps the rules are different
		you're not willing to have it, you've got it)
	_____	Introduced Willingness-as-Alternative
	_____	Discussed nature of willingness (e.g., choosing to be open/ willing to experience our experience; allowing ourselves to have our thoughts/feelings as they are; willingness-as- action and choice)
	_____	Described what willingness is
	_____	Described what willingness is not
	_____	Houseguest Metaphor (Willingness is like choosing to be a good host/hostess by welcoming in all of your house guests, even if you don't like all of them)
	_____	Read Guest House Poem
	_____	Emphasized personal responsibility and choice in world outside skin (still important to choose what we do with our hands, feet, mouth)
	_____	Clean vs. Dirty Discomfort Exercise
	_____	Explored the power of language and words
	_____	Good that language allows us to do
	_____	Bad that language allows us to do
	_____	Taking away the power of words; Playing with language and words
link to	_____	Introduced rationale; ask for permission to be playful and willingness
	_____	Milk Exercise (repeat with emotionally salient word)

- _____ Linked defusion work to personal responsibility and values
- do with _____ Can we hear what our Minds say and still choose what to our hands/feet?
- _____ Who is in charge here: You or your Mind?
- _____ Take Your Mind for a Walk exercise
- _____ Mindfulness - another way to cultivate willingness
- _____ Defined mindfulness
- present _____ Living in our minds - do it excessively & miss out on the moment
- _____ Mindfulness exercise
 - _____ Eyes closed
 - _____ Notice breath
 - _____ Nothing to accomplish
 - _____ Minds will wander
 - _____ Transient nature of private experience
 - _____ Notice private experience
 - _____ You are not your private experience
 - _____ End exercise
- _____ Ice Cube exercise to look at mindfulness of pain
- _____ What are values?
 - _____ Something we deeply care about; what truly matters; we never finish our values
 - _____ Values distinct from goals
- _____ Values Identification: Work retirement party
 - _____ Eyes-closed exercise
 - _____ Teachers write responses
 - _____ Asked teachers to share experiences

Begin Values Compass

“If

Flushed out one valued domain – be specific!

Defined what teachers want to “be about” in chosen area; anything were possible”

Wrote “Values” inside values circle

Wrote goals and action steps outside of circle and label “Goals/Actions”

Identify barriers to living out values

Drew barriers on Values Circle

Discriminated between barriers inside and outside the skins

Asked teachers how they respond to barriers

Revisited: Who is in charge? You or your Mind?

Revisit what to do when barriers show up

Mindfulness

Play with words

Continue toward values no matter what

Committed Action

Set goals in the service of personally held values

Leaving valued footprints