

THE ROLE OF EXPERIENTIAL AVOIDANCE IN TEACHER STRESS AND
MENTAL HEALTH

by

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DISSERTATION ABSTRACT

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Title: The Role of Experiential Avoidance in Teacher Stress and Mental Health

Job satisfaction in American public school teachers is at its lowest in 20 years. Workplace stress is a primary factor associated with job dissatisfaction, and teachers are exposed to a range of potential stressors including student problem behavior, difficult interpersonal interactions, and job insecurity. Research has shown significant and strong correlations between low job satisfaction and burnout, depression, anxiety, and decreased efficacy. Although negative outcomes associated with stress impact many teachers, others successfully cope. Experiential avoidance, a relatively new psychological construct, may play a role in why some teachers experience negative outcomes related to stressful work conditions while others do not. To further our understanding of the role of experiential avoidance in teacher functioning, the present study investigated the psychometric properties of a new measure of teacher experiential avoidance and examined the relationships between aspects of teacher stress (i.e., student problem behavior, job dissatisfaction, and low social support), experiential avoidance and mental health symptoms.

Oregon teachers ($n = 523$) completed measures assessing social support, job satisfaction, the impact of student problem behavior on their teaching, experiential avoidance, depression, burnout, and teaching efficacy. Results showed 1) good reliability

and validity for a teacher experiential avoidance measure; 2) that experiential avoidance was significantly associated with all mental health measures in the expected directions; 3) that there were no statistically significant differences between men and women in the relationships between experiential avoidance and teacher mental health measures; 4) a significant interaction effect between job satisfaction, experiential avoidance, and depression; and 5) that experiential avoidance functioned as a mediator in the relationship between student problem behavior and all outcome variables. Findings suggest that experiential avoidance may be an important factor in teachers' psychological well-being. The present study points to the value of implementing interventions aimed at decreasing experiential avoidance in teachers.

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CHAPTER I

LITERATURE REVIEW

Introduction

Many teachers experience psychological, physical and behavioral problems as a result of stressful work environments (Kyriacou, 1987, 2001; Evans, 2003; Jurado, Gurpegui, Moreno, & de Dios, 1998). Work stressors can also adversely impact teachers' job performance and their relationships with students (Skaalvik & Skaalvik, 2009; Gerber, Whitebook, & Weinstein, 2007; Kokkinos, Panayiotou, and Davazoglou, 2005; Yoon, 2008; Dworkin, 2001). Furthermore, teachers report experiencing symptoms of burnout and are leaving the field at a high rate, while many who remain become disillusioned and cynical (Bartoli, 2002; Miller, Brownell, & Smith, 1999; Jackson, Schwab, & Schuler, 1986; Leiter & Maslach, 2004). Some teachers, however, do not experience burnout and continue successfully teaching for many years (Kyriacou, 2001). Continued investigation is needed to better understand why certain teachers are more prone to experiencing burnout and other problems in response to work-related stress. Furthering our understanding of the causal and mediating factors involved in teacher stress and burnout is also necessary for developing effective intervention strategies.

Experiential avoidance, the process by which individuals avoid uncomfortable internal experiences such as difficult thoughts, feelings, or physical sensations (Hayes, Strosahl, & Wilson, 1999), may play an important role in why some teachers are better able to cope and ultimately avoid negative outcomes associated with stress. Experiential avoidance has been identified as acting as both a mediator and a moderator between a

variety of internal and external experiences and psychological and behavioral difficulties (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). It is possible that experiential avoidance may mediate or moderate the relationship between stress and negative outcomes in teachers.

The Problem of Stress among Teachers

Stress has been studied intensively for several decades by researchers in fields such as medicine, psychology, and sociology. Subsequently, definitions and models of stress are abundant and consensus in this area is lacking (Gurung, 2006). Early models were based on stimulus and response processes and focused on biological and physiological mechanisms initiated in response to environmental triggers. Cannon's flight-or-fight theory (1914), for example, posited that environmental stressors activated biological responses involving sympathetic activation and endocrine activity, subsequently preparing the body for action. Eventually, Seyle (1946) developed a three-stage theory of stress that included both physiological and psychobiological components. This General Adaptation Syndrome held that organisms respond to stress via three distinct phases: (a) alarm reaction, (b) stage of resistance, and (c) stage of exhaustion. During the alarm reaction phase, the body is alerted to the stressor and the physiological systems respond (e.g., hypothalamus, pituitary, adrenal cortex, and corticosteroids). Stress levels are highest at this stage. Next, during the resistance stage, the body's defenses continue working until stress levels diminish. If the aversive stimulation persists for too long, exhaustion ensues, which can lead to physiological damage.

Early models such as Cannon's (1914) and Seyle's (1946) did not include cognitive processes as mediators of the relationship between environmental demands and

stress responses, nor did they consider individual differences in the degree to which environmental demands were perceived as being stressful. (Lazarus & Folkman, 1984). Eventually, Lazarus (1966) developed a psychological conceptualization of stress based on cognitive appraisal theory. According to Lazarus and Folkman (1984), the most recent adaptation of the theory holds that stress is a relational, or transactional, process occurring between individuals and their environment. That is, stress is not defined in terms of it being a certain type of environmental trigger or pattern of subjective, physiological, or behavioral responses. Rather, it is viewed as a relational concept in which a bidirectional person-environment relationship exists. The authors state that the basic assumption of the model is that stress occurs when there is an imbalance between the demands placed on an individual and their perceptions, or appraisals, of whether or not they have adequate coping resources. That is, when faced with a possible stressful event, individuals engage in a primary appraisal process in which they view the demand as threatening or nonthreatening. Next, individuals engage in a secondary appraisal process in which they determine the degree to which they are equipped to handle the situation. Additionally, the model holds that individuals will implement either cognitive or behavioral strategies to cope with the stressor(s). Finally, a situation is appraised as being stressful when the individual perceives it as taxing or exceeding their adaptive resources or coping strategies. In applying Lazarus and Folkman's (1984) model to teachers, stress may be broadly conceptualized as a disparity between intense work demands (e.g., dealing with student problem behavior, difficult interactions with colleagues and parents, lack of resources, low staff support) and the perceived lack of availability or adequacy of coping resources.

Teacher Occupational Stress

Kyriacou and Sutcliffe (1978a) developed a model of teacher stress grounded in Lazarus' (1966) earlier cognitive appraisal conceptualization of stress. According to the model, potential stressors are viewed as precursors to teacher stress, with threat appraisals and coping mechanisms mediating the effects of potential stressors. Potential stressors are categorized as physical, such as over-crowded classrooms, or psychological, such as difficult interpersonal interactions with colleagues, students, or parents. If inappropriate or unhelpful coping mechanisms are implemented, stress arises. According to the model, teacher stress is viewed primarily as negative affect and is associated with a range of psychological, physiological, and behavioral problems. Over time, chronic psychological and physiological symptoms, such as depression and heart disease, can develop. Finally, the model assumes that the entire process is influenced by intra-individual characteristics of the teacher such as demographics, personality, perceived social support, and self-efficacy beliefs.

One of the more commonly used definitions of teacher occupational stress is, "The experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 1978, p. 28). Work stress is reported by teachers across grade-levels, cultures, and throughout the world (Kyriacou, 1978b; 2001). Approximately 25% of teachers have reported experiencing high or extreme levels of stress and approximately 50-90% reported feeling stressed often or always (Hinds et al., in press). Middle school teachers appear to experience the greatest exposure to stressors (Dworkin, 1990; Gottfredson, Gottfredson, & Skroban, 1998) because this is a developmental period in which students

are most likely to begin demonstrating behavior problems (Biglan et al., 2004).

Additionally, evidence suggests that special education teachers experience higher rates of stress than general education teachers (Boe, Bobbitt, & Cook, 1997; Kokkinos & Davazoglou, 2009; Miller, Brownell, & Smith, 1999; Wisniewski & Gargiulo, 1997).

Correlates of Teacher Stress

Although most individuals effectively adapt to or cope with stressful situations, a wide variety of adverse biological, cognitive, and behavioral effects of prolonged stress have been documented (Dougall & Baum, 2001). While the physiological stress responses described by Cannon (1914) and Seyle (1956) are adaptive processes, continual activation of these systems can lead to negative physical and mental health outcomes. Examples of poor physical health outcomes include cardiovascular disease, immune system suppression, and ulcers. In addition to its role in physiological problems, stress can result in mental and behavioral health problems including 1) negative mood, such as depression, anxiety, and anger; 2) difficulties with attention, memory, and problem solving; 3) reduced motivation to achieve goals or engage in self-protective behaviors; 4) decreased restraint against harmful behaviors; 5) reductions in sleep quantity and quality; 6) increased aggression; and 7) changes in eating, drinking, and smoking behaviors (Dougall & Baum, 2001).

Unfavorable working conditions can be a significant source of stress and job-related stress has been recognized as a major health issue in the United States and other developed countries (Jex & Yankelevich, 2008; Spector, 2002). According Sauter and Murphy (1995), nationwide surveys have shown that large percentages of workers reported experiencing high levels of stress at work. Factors contributing to stress in the

workplace include intrapersonal factors such as personal vulnerability to stress (e.g., coping style, personality factors, psychological hardiness) and environmental factors such as job demands (e.g., workload, time pressure, interpersonal conflicts) and organizational climate (e.g., unfair payment, lack of resources, impact of technology; Kendal, Murphy, O'Neill, & Bursnall, 2000).

Acute job stress can lead to a wide range of problems including negative affect, gastrointestinal problems, headaches, sleep difficulties, and low energy (Cartwright & Cooper, 1997). Additionally, occupational stress has been shown to predict a variety of behavioral problems such as reduced job performance, difficulties with family relationships, and self-damaging behaviors (Kahn & Byosiere, 1992; Suter & Murphy, 1995 in Leiter & Maslach, 2004). Long-term job stress can contribute serious illnesses, such as cardiovascular disease, and even premature death (Cartwright & Cooper, 1997). Lastly, chronic interpersonal stress can lead to job burnout (Maslach, Schaufeli, & Leiter, 2001).

Research has demonstrated an association between reported stress and physical, behavioral, and psychological health problems for teachers. For example, teachers report more illnesses (Makinen & Kinnunen, 1986) and more doctor visits (Jarvis, 2002) than the population overall. Teachers also report higher levels of medication use when compared to the general population (Makinen & Kinnunen, 1986). With regard to behavioral health, teachers have historically reported higher rates of alcoholism and drug use (Fimian, Zacherman, & McCardy, 1985) and more excessive use of alcohol (Jarvis, 2002).

When compared to the general population, teachers are at higher risk of experiencing psychological distress (Evans, 2003), depression, (Jurado, Gurpegui, Moreno, & de Dios, 1998), and job dissatisfaction (Schonfeld, 1990). Studies examining teacher stress and psychological health have found that depression and job dissatisfaction were associated with teachers' reported stress (Jurardo, et al., 1998; Shonfeld, 1992a) and that teachers who reported high levels of stress also reported higher levels of anxiety and sexual passivity (Makinen & Kinnunen, 1986). Furthermore, a study involving Norwegian elementary and middle school teachers ($n = 2,249$) found that low teaching efficacy and teaching effectiveness were also correlated with reported stress (Skaalvik & Skaalvik, 2009). A more recent study of 168 secondary school teachers by Mahan and colleagues (2010) found that both episodic and long-term stressors were significantly and positively correlated with depression and anxiety. Professional burnout is also common among teachers, leading to many of them leaving the field (Bartoli, 2002; Miller, Brownell, & Smith, 1999; Jackson, Schwab, & Schuler, 1986).

Occupational Burnout

Occupational burnout is a psychological syndrome that occurs in response to chronic stress from intense job demands that are often marked by interpersonal and emotional strain (Maslach, Schaufeli, & Leiter, 2001). Burnout is evident in individuals across a range of occupations and its symptoms can manifest in persons without prior psychopathology (Schaufeli & Greenglass, 2001; Maslach & Schaufeli, 1993). It is recognized as being particularly salient to individuals working in people-oriented professions such as human services, healthcare, and education. Job demands commonly associated with burnout include work overload, difficult interpersonal interactions, role

conflict, and role ambiguity (Maslach, Schaufeli, & Leiter, 2001; Fried, Shirom, Gilboa, & Cooper, 2008; Fried, Ben-David, Tiegs, Avital, & Yeverechyahu, 1998).

The most widely-used model of burnout conceptualizes burnout in terms of three different components: *emotional exhaustion*, *depersonalization*, and *reduced personal accomplishment* (Maslach, 1993; Maslach, Schaufeli, & Leiter, 2001). *Emotional exhaustion* is most closely related to a traditional stress variable. To capture the interplay of complex social and self-evaluation processes that distinguish burnout from stress, Maslach and colleagues (2007) included the *depersonalization* and *personal accomplishment* components to their model. The three dimensions of burnout have been recently hypothesized to gradually occur in sequence, leading to a steady decline in coping resources (Taris, LeBlanc, Schaufeli, & Schreurs, 2005).

Emotional exhaustion. An individual may experience emotional exhaustion due to work overload and interpersonal conflict on the job. Emotional exhaustion is marked by feelings of being emotionally overtaxed and depleted and, subsequently, unable to offer any more to the job emotionally (Maslach, Schaufeli, & Leiter, 2001). For teachers, this can manifest as an inability to afford students emotional support because of intense feelings of stress and fatigue and a sense of being emotionally drained.

Depersonalization. This dimension of burnout has also been conceptualized as cynicism and has been hypothesized as occurring in response to ongoing emotional exhaustion. It involves excessive, sometimes callous, distancing from the job and clients by actively ignoring their engaging, unique, or meaningful attributes (Maslach, Schaufeli, & Leiter, 2001). Emotionally exhausted teachers tend to experience reduced positive feelings about their students, resulting in depersonalization. This can be seen as displays

of indifference toward students, the use of derogatory labels for students, and physical distancing, and psychological withdrawal (Maslach, Jackson, & Leiter, 1997).

Reduced personal accomplishment. Finally, professionals may begin to question their ability to help individuals. This results in a sense of reduced personal accomplishment, which refers to decreased feelings of professional competence and efficacy (Maslach & Leiter, 1997). For teachers this can manifest as a sense that they are not effectively contributing to their students' development.

Correlates of burnout. Burnout has been shown to be associated with negative interpersonal interactions, decreased personal satisfaction with work, job withdrawal, decreased quality of care for patients and clients, absenteeism, and turnover (Maslach, 1998; Maslach & Leiter, 1997). Burnout is also linked to the development of physical and mental health problems. With regard to mental health, research has shown that burnout is correlated with a variety of self-report measures of distress. For example, Corrigan and colleagues (1995) found that emotional exhaustion was correlated with anxiety and Golembiewski and Munzenrider (1988) found an inverse relationship between reported burnout scores and scores on a mental health index. Furthermore, there is some evidence for an association between burnout and increased substance use and couple and family conflict (McGrath, Houghdan, & Reed, 1989; Maslach, 2001). Finally, in their review, Maslach and Schaufeli (1993) found that symptoms of dysphoria, such as depression, mental and emotional exhaustion, and fatigue were common features of burnout.

Teacher burnout has been associated with decreased commitment to the profession, diminished teaching quality, and teacher attrition (Wisniewski & Gargiulo, 1997). For example, compared to individuals in other professions, teachers leave the field

at significantly higher rates (National Center for Education Statistics, 1998) and several studies have shown that burnout is a predictor of absence from work, teacher turnover, and departure from the field (Bartoli, 2002; Miller, Brownell, & Smith, 1999; Wisniewski & Gargiulo, 1997; Jackson, Schwab, & Schuler, 1986;). Many teachers leave the profession after only a few years, while others retire early (Kyriacou, 2001; Rudow, 1999). Additionally, analyses of data from 2,038 Finnish teachers showed that burnout mediated the effect of intense job demands on health problems (Hakanen, Bakker, & Schaufeli, 2006). Finally, studies have shown that teacher burnout is correlated with depression and anxiety (Burke, Greenglass, and Schwarser, 1996).

Implications for Students

Problems associated with teacher stress, such as burnout, depression, and low teaching efficacy, can negatively impact relationships between teachers and their students and also influence students' academic functioning and mental health. For example, emotional exhaustion, a common characteristic of burnout, can lead to depersonalization of and decreased positive feelings toward students (Maslach et al., 1997). Furthermore, teachers may attempt to reduce emotional distress by withdrawing from caring relationships with students (Dworkin, 2001). Burnout is also commonly associated with decreased personal satisfaction with professional duties, which can manifest as negative interpersonal interactions with students (Maslach et al., 1997). Distressed teachers also have more difficulty managing student behavior and developing nurturing relationships with students. For example, they have been found to demonstrate a lower tolerance for misbehavior (Kokkinos, Panayiotou, & Davazoglou, 2005; Yoon, 2008) and, without proper training, were shown to be more likely to use harsher methods of discipline

(Gerber, Whitebook, & Weinstein, 2007). Finally, teachers reporting low self-efficacy were found to have worse interactions with their students and be less effective (Skaalvik & Skaalvik, 2009).

Teachers' psychological wellbeing and ability to develop nurturing relationships with students are important factors in student achievement and wellbeing. For example, teachers' efficacy concerning their facility to influence student learning is associated with student motivation and achievement (Skaalvik & Skaalvik, 2009). In a survey of elementary school teachers ($n = 113$), Yoon (2002) found that negative teacher-student relationships were predicted by teacher stress. Researchers have also found that 9th grade students ($n = 1,701$) who perceived their teachers as helpful and friendly reported significantly higher scores on a measure of wellbeing than those who perceived their teachers as strict and admonishing (Van Petegem et al., 2005). Positive school experiences are even more important for at-risk youth. For example, Werner (1990), found that teachers who were emotionally nurturing, acknowledged competence, and promoted self-esteem were an important factor in reducing at-risk students' stress responses. Finally, a longitudinal study conducted by Essex, Armstrong, Burk, Goldsmith, & Boyce (2011) found an association between adverse teacher-student relationships in 1st grade with the development of mental health problems in 7th grade, particularly for more reactive children.

Factors Contributing to Teacher Stress

Teachers are exposed to a wide range of stressors. They must manage large workloads that include preparing for and teaching classes, grading, and administrative tasks. More often than not, these tasks occur outside of regular work hours, creating

additional strain. Furthermore, with the decline in the U.S. economy, teachers are facing job insecurity, school closures, lack of resources, and continually increasing class sizes. The occurrence of difficult interactions with parents also has been identified as a major stressor for teachers.

Student problem behavior. Kyriacou (2001) reported that student misconduct and lack of motivation are significant stressors for teachers. In regression and factor analyses of Canadian teachers' ($n= 274$) self-report survey data, for example, Ferguson, Frost, and Hall (2012) found that student behavior and workload were significant predictors of depression. Further, they found that student behavior, workload, and employment conditions predicted anxiety. Teachers' individual perceptions of student misbehavior are also important factors in teachers' psychological wellbeing (Greene, Abidin, & Kmetz, 1997). For example, one teacher may experience a student's difficult behavior as more stressful than another teacher, which may have implications for the student-teacher relationship, the student's adjustment, and the teacher's overall mental health (Dworkin, Haney, Dworkin, & Telschow, 1990; Schonfeld, 1992).

Low social support. In addition to managing difficult student behavior, Kyriacou (2001) reported that teachers must contend with challenging interactions with colleagues, principals, and administrators. Studies have also indicated that variables such as perceived lack of support and recognition, professional isolation, and difficult interpersonal interactions contributed to higher levels of stress in teachers (Billingsley & Cross, 1992; Pithers & Soden, 1998; Platt & Olson, 1990). Conversely, higher levels of supportiveness among staff and administrators have been shown to be associated with lower stress and burnout among teachers. For example, Greenglass, Burke, and Konarski

(1997) studied a sample of Canadian teachers ($n = 833$) and found that greater support predicted increased feelings of accomplishment and decreased feelings of depersonalization on the Maslach Burnout Inventory (MBI; Maslach & Jackson 1984). Other studies examining perceived social support, specifically availability of emotional support, have found that more emotional support was related to fewer negative psychological health outcomes (Griffith, Steptoe, & Cropley, 1999; Snow, Swan, Raghavan, Connell, & Klein, 2003).

Job dissatisfaction. There is growing evidence that current trends in teachers' employment conditions may be eroding their satisfaction with work. For example, a recent phone survey of American public school teachers ($n = 1,011$) found that teachers' satisfaction with their work was at its lowest in 20 years (Metlife, 2011). Survey responses indicated that teacher job satisfaction has decreased by 15 percentage points since 2009 and that the number of teachers who reported they were *very* or *fairly likely* to leave the field rose 12 percentage points, up from 17 in 2009. The effects of economic conditions appear to be a factor in job satisfaction, with 34 percent of teachers having reported experiencing feelings of job insecurity. Three-quarters of the sample reported experiencing budget decreases in their schools and 66 percent reported staff and teacher layoffs within the past year.

Studies have shown a clear link between job satisfaction and negative mental health outcomes. For example, a meta-analysis of nearly 500 studies of job satisfaction throughout the world and across a variety of organizational settings revealed highly statistically significant associations between job satisfaction and measures of mental health (Faragher, Cass & Cooper, 2005). Specifically, the authors found that, “on

average, employees with low levels of job satisfaction are most likely to experience emotional burnout, to have reduced levels of self-esteem, and to have raised levels of both anxiety and depression” (Faragher, Cass & Cooper, 2005, p. 108). Studies examining correlates of job satisfaction in teachers specifically have found strong associations between dissatisfaction and stress (Sutton & Huberty, 1984; Singh & Billingsley, 1996) and departure from the field (Stempien & Loeb, 2002). Eichinger (2000) found that special education teachers are particularly susceptible to stress-related job dissatisfaction. Furthermore, studies of educators have found an association between job dissatisfaction and mental and physical health. Among South African educators ($n = 81$), for example, lower job satisfaction and lack of leisure time were correlated with an increase in minor psychiatric disorders (e.g., generalized anxiety and depressive disorders; Peltzer, Shisana, Zuma, Van Wyk & Zungu-Dirwayi, 2009). A study of teachers in Japan ($n = 403$) found that for females, job dissatisfaction was significantly associated with reported minor psychiatric disorders as measured by the General Health Questionnaire (GHQ-28, Goldberg & Hillar, 1979; Nagai, Tsuchiya, Toulopoulou, & Takei, 2007).

Coping and Teacher Mental Health

Coping has been identified as an important mediator of the relationship between perceived stress and its associated physical, mental, and behavioral health problems (Lazarus & Folkman, 1984). It has been defined as an effortful attempt to cognitively or behaviorally manage a stressor or its effects (Lazarus & Folkman, 1984). A variety of coping strategies have been described in the stress literature and two general categories have been suggested: problem-focused and emotion-focused coping (Lazarus, 1966;

Lazarus & Folkman, 1984). Problem-focused coping consists of behaviors aimed at addressing and altering the circumstances leading up to the stress appraisal. They include activities such as information-seeking, generating possible solutions, and taking action. Emotion-focused coping strategies consist of behaviors aimed at regulating emotional distress and are demarcated by their lack of direct engagement with the stressor in order to reduce or resolve it (Montgomery & Rupp, 2002). Related behaviors can include seeking social support, distraction, minimization, distancing, avoidance, and positive reappraisal.

Two additional coping dimensions, avoidance-focused and acceptance-focused coping, have been suggested by researchers (Endler & Parker, 1994; Lowe, Norman, & Bennett, 2000). Avoidance-focused coping is a type of emotion-focused coping involving behaviors and cognitions aimed at avoiding a stressor or stifling the thoughts and emotions related to it (Endler & Parker, 1994). Examples include focusing on unrelated matters, venting, denial, substance use, and disengagement (Zuckerman & Gagne, 2003). Acceptance-focused coping involves accepting both the reality of the stressful situation and a current lack of active coping strategies (Carver, Scheier, & Weintraub, 1989). According to Carver and colleagues (1989), acceptance strategies might be particularly salient under conditions in which the perceived stressor cannot be changed and, therefore, must be accommodated.

Kyriacou (2001) described teacher coping strategies as also falling into one of two categories: direct action techniques or palliative techniques. Teachers' direct-action or problem-focused techniques involve gaining insight into the source of stress and then taking action to change the situation. Examples include acquiring new skills, developing

more effective work habits, or dialoging with colleagues about specific issues or concerns. Palliative or emotion-focused strategies are aimed at decreasing the difficult feelings associated with the stress experience. These can involve cognitive strategies, such as trying to change how the circumstance is appraised, and physical strategies aimed at retaining or regaining a sense of calm.

Coping approaches vary between individuals, intra-individually, and across contexts (Parkes, 1986; Johnson, 1999). Furthermore, individual differences in the availability, selection, and utilization of coping resources can influence outcomes of stress (Parkes, 1986). Coping mechanisms can be generally categorized as adaptive or maladaptive, and can be maladaptive in one context and prove adaptive in another (Folkman & Moskowitz, 2004). In their review, Karekla and Panayiotou (2011) indicated that there is substantial evidence for the adaptive function of problem-focused coping strategies, which have been associated with greater health and psychological wellbeing (Kneebone & Martin, 2003; Wodka & Barakat, 2007). Conversely, strategies such as avoidance or emotion-focused coping have been shown to be less adaptive and have been correlated with depression, suicidal ideations and behaviors, post-traumatic stress disorder, panic attacks, and smoking (Haaga, Thorndike, Friedman-Wheeler, Pearlman, & Wernicke, 2004; Doucet Dennis, Letourneau, & Robertson-Blackmore, 2009; Edwards & Holden, 2009; Chung, Burger, Jones & Rudd, 2008; Ottenbreit & Domson, 2004). Additionally, the longer an individual relies on less-adaptive or maladaptive coping strategies, the more at risk they become for experiencing physical and psychological problems (Karekla & Panayiotou, 2011).

With regard to teachers, Chan (1998) found that using avoidance coping strategies exacerbated distress. In a study of teachers in Hong Kong, he found that the type of coping strategies implemented by teachers mediated the effects of stress on their emotional wellbeing. Specifically, the author found that teachers who relied heavily on passive or avoidance coping and revealed ineffective active coping abilities experienced negative emotional reactions, which subsequently led to professional burnout.

In general, there appears to be agreement within the literature that problem-focused coping tends to be more adaptive than emotion-focused coping approaches. Furthermore, it appears that emotion-focused coping strategies, such as avoidance, tend to result in more problematic outcomes.

The Role of Experiential Avoidance in Teacher Mental Health

Experiential avoidance is a relatively new construct targeted by Acceptance and Commitment Therapy, an evidence-based cognitive-behavioral psychological intervention (ACT; Hayes, Strosahl, & Wilson, 1999). It involves a person being unwilling to accept internal events (e.g., thoughts, feelings, bodily sensations, memories), while instead engaging in behaviors aimed at altering the frequency, duration, or form of the unwanted internal experience and avoiding the circumstances that occasion them (Hayes, 1994; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Hayes, Strosahl, & Wilson, 1999). When a person is experientially avoidant, their actions are directed by their psychological reactions (e.g., self-evaluative thoughts) and related behaviors aimed at avoiding the experience of undesirable internal events, instead of by their value-based goals. There is preliminary support for considering experiential avoidance as a type of emotion-focused coping (Karekla & Panayiotou, 2011).

Experiential Avoidance and Coping

Although experiential avoidance has not been historically described as a coping approach per se, Karekla and Panayiotou (2011) investigated whether experiential avoidance and coping were separate or overlapping constructs. They used the Brief COPE questionnaire (Carver, 1997) to measure coping styles and the Acceptance and Action Questionnaire (AAQ-II; Bond et al., in press), to measure experiential avoidance in a sample of Greek adults participating in an epidemiological study on anxiety ($n=197$). Results from correlational analyses, factor analysis, and regressions revealed that experiential avoidance and coping styles, mainly emotion-focused and avoidant approaches, were related but not identical constructs. That is, although EA and emotion-focused and avoidant approaches were closely related, EA contributed unique variance in explaining psychological distress and quality of life. The authors found that participants reporting higher experiential avoidance reported greater utilization of coping strategies such as denial, emotional support, behavioral disengagement, venting, and self-blame. Participants reporting lower experiential avoidance reported greater utilization of positive reframing and acceptance. The authors posited that the unique variance explained by EA may be due to its greater emphasis on avoidance of internal experiences, such as difficult thoughts and feelings. Overall, this study provided preliminary support for considering EA as an additional coping approach related to strategies previously classified as emotion-focused and avoidant.

Two studies comparing EA with coping and emotion regulation strategies found that EA fully or partially mediated the relationships between coping and emotion regulation strategies on anxiety-related distress (Kashdan, Barrios, Forsyth, and Steger,

2006). That is, the relationships between coping and emotion regulation strategies and anxiety-related distress were reduced or eliminated after controlling for the effects of EA, suggesting that EA plays a role in the etiology and maintenance of anxiety disorders. Similarly, Fledderus, Bohlmeijer, and Pieterse (2010), found that EA acted as a mediating variable in the effect of passive coping on increased anxiety and depression and reduced emotional and psychological wellbeing. These findings suggest that people with propensities toward being experientially avoidant during stressful situations are at greater risk of developing psychopathology and decreased mental health (Fledderus et al., 2010).

Psychological and Behavioral Correlates of Experiential Avoidance

There is considerable evidence concerning the association between experiential avoidance and psychological and behavioral problems. For example, several reviews of the literature (Hayes et al., 2004 & 2006; Kashdan et al., 2006) have reported that experiential avoidance is significantly correlated with problems including anxiety disorders (Roemer & Orsillo, 2007; Tull, Gratz, & Lacroce, 2006; Tull & Roemer, 2007; Dalrymple & Herbert, 2007; Kashdan & Breen, 2007; Feldner, Zvolensky, Eifert & Spira, 2003; Santanello & Gardner, 2007; Boeshen, Koss, Figueredo, & Coan, 2001), depression (Cribb, Moulds, & Carter, 2006; Spira, Beaudreau, Jimenez, Keirod, Cusing, Gray, & Gallagher-Thompson, 2007; Tull & Gratz, 2008; Tull, Gratz, Slaters, & Roemer, 2004), obsessive–compulsive disorder (Twohig, Hayes, & Masuda, 2006), self-harm behaviors (Gratz & Gunderson, 2006; Twohig et al., 2006), substance abuse (Stewart, Zvolensky, & Eifert, 2002), and rumination (Cribb et al, 2006; Santanello & Gardner, 2007). Longitudinal studies found that experiential avoidance predicted future post-traumatic stress disorder symptoms in trauma survivors (Marx & Sloan, 2002).

Interactions and Indirect Effects of Experiential Avoidance

Experiential avoidance has been shown to both mediate and moderate relationships between internal and external experiences and psychological and behavioral disorders. For example, Andrew & Dulin (2007) found an interaction effect between levels of reported EA, self-reported health, and anxiety and depression symptoms in older adults. That is, the relationship between health problems and depression and anxiety in older adults was determined, in part, by the use of experientially avoidant strategies. Santanello and Gardner (2007) found that EA partially mediated the relationship between perfectionism and worry. Additionally, Gratz, Tull, & Gunderson (2008) found that EA mediated the relationship between anxiety sensitivity and borderline personality disorder. In trauma survivors, Kashdane and Kane (2011) found that participants who reported post-traumatic distress and low levels of EA also reported experiencing greater personal growth and belief that their life has meaning. Reported levels of EA have also been shown to moderate relationships between sexual victimization and the development of psychological symptoms (Merwin, Rosenthal, & Coffey, 2009; Gold, Dickstein, Marx, & Lexington, 2009). In studies of childhood abuse and child-adolescent sexual abuse, EA mediated the degree of psychological distress experienced during adulthood (Reddy, Pickett, & Orcutt, 2006; Polusny, Rosenthal, Aban, and Follette, 2004).

Experiential Avoidance and Sex Differences

There is some preliminary data suggesting that EA may differ based on gender. For example, Hayes and colleagues (2004) found that among clinical samples, adult females scored slightly higher than males on the 35-item AAQ, $F = 21.3$; $p = .000$ (females: $M = 37.3$; $SD = 7.9$; males: $M = 34.7$; $SD = 7.8$). There were, however, no differences by gender in the non-clinical adult samples investigated in the study. In a

study investigating repetitive self-mutilation in adolescents, Howe-Martin (2008) found significant differences between males and females on measures of experiential avoidance, with females reporting higher levels of thought suppression and avoidance/cognitive fusion than males. Finally, in another study with adolescents, Biglan and colleagues (in prep), found that adolescent girls reported higher levels of EA than boys. Results also revealed that EA was more highly correlated with depression, substance, antisocial behavior, and association with deviant peers use for girls than for boys.

Experiential Avoidance and Workplace Wellbeing

A small literature has examined EA, as measured by the AAQ or the AAQ-II (Hayes et al., 2004; Bond et al., in press), and workplace wellbeing. For example, in a descriptive study of 98 critical care nurses in Spain, EA was shown to be significantly and positively associated with the depersonalization and emotional exhaustion subscales of the Maslach Burnout Inventory (MBI; Maslach, Jackson & Leiter, 1997) and significantly and negatively correlated with the personal accomplishment subscale (Iglesias, Vallejo, & Fuentes, 2001). Bond and Bunce (2003), found that psychological acceptance predicted positive outcomes in mental health, job satisfaction, and job performance one year later in a sample of English and Scottish customer service call center employees (n=412). In a study comparing EA and emotional intelligence, Donaldson & Bond (2004) found that psychological acceptance predicted general mental health and physical wellbeing. The authors suggested that practicing psychological acceptance (i.e., by not trying to control difficult thoughts and feelings) may be more beneficial for mental wellbeing than the use of emotion regulation strategies. In a longitudinal study, Bond and Flaxman (2006) found that low experiential avoidance and

job control, a work organization variable, predicted mental health, job performance, and the ability to learn a new skill.

Based on a growing body of evidence, teachers' efforts to avoid or control undesirable stress-related internal experiences may be linked to negative outcomes. For example, Biglan and colleagues (2011) found that teachers who were less aware of their feelings, tended to judge their thoughts and feelings, and were generally experientially avoidant, as assessed by the AAQ (Hayes et al., 2004), were more likely to be depressed, less likely to be satisfied with their lives, more likely to report stress, and less likely to feel efficacious. Furthermore, an ACT intervention study of 61 preschool teachers and childcare providers found an association between EA and teachers' reports of depression, burnout, and stress (Biglan, Layton, Rusby, & Jones, 2011). Additionally, the intervention decreased staff members' EA and increased teachers' sense of efficacy, mindful awareness, and the degree to which they lived in accordance with their values.

Experiential avoidance (Hayes, Strosahl, & Wilson, 1999) may play an important role in why some teachers are better able to cope with stress and ultimately avoid burnout. Experiential avoidance has been identified as acting as both a mediator and a moderator between a variety of internal and external experiences and psychological and behavioral difficulties (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). It is possible that experiential avoidance may mediate or moderate the relationship between stress and negative outcomes in teachers.

Measurement of Teacher Experiential Avoidance

Emerging research points to the need to understand the role of experiential avoidance in teacher wellbeing. To empirically investigate the relationships between

experiential avoidance, mental health, and stress in teachers, a measure of teacher experiential avoidance is needed. To date, the primary measure of experiential avoidance in general populations is the Acceptance and Action Questionnaire (AAQ-II; Bond, et al., in press). Research suggests, however, that content-specific instruments are more precise in measuring experiential avoidance with specific populations (Luoma, Drake, Kohlenberg, & Hayes, 2011). In their review of the literature, for example, Luoma and colleagues (2011) found that disorder-specific AAQ measures were more successful at predicting treatment outcomes for the following problems: tinnitus (Westin, Hayes, & Andersson, 2008), diabetes (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007), epilepsy (Lundgren, Dahl, & Hayes, 2008), obesity (Lillis, Hayes, Bunting, & Masuda, 2009), smoking (Gifford, Kohlenberg, Hayes, Anotnuccio et al., 2004), chronic pain (McCracken, Vowles, & Eccleston, 2004; Wicksell, Renofalt, Olsson, Bond, & Melin, 2008), and auditory hallucinations (Shawyer et al, 2007). It is important to note that these studies used the AAQ-I, which has demonstrated insufficient alpha levels. The AAQ-II used in this study is highly correlated with the AAQ-I ($\alpha = .97$), but has demonstrated better psychometric consistency (Bond et al, 2011).

Purpose of Study

Teacher stress has been identified as a universal, cross-cultural experience that is associated with a range of problematic psychological and behavioral outcomes (Kyriacou, 1987, 2001; Evans, 2003; Jurado, Gurpegui, Moreno, & de Dios, 1998). Survey data have estimated that within seven years of starting, approximately half of all general education teachers will leave the field (NCES, 1997) with attrition rates occurring at even higher rates among special education teachers (Boe, Bobbitt, & Cook, 1997). Teachers' wellbeing and commitment to the profession have been found to be critical

factors in creating school atmospheres that are conducive to young people's healthy social development (Bryk and Driscoll, 1988). To better understand teacher stress, Kyriacou (2001) recommended further research examining the process by which teachers may effectively or ineffectively cope with stress and why some teachers are able to avoid burnout and other negative mental health outcomes.

The purpose of the present study was to 1) examine the psychometric properties of a new measure of teacher experiential avoidance; 2) investigate the relationships between experiential avoidance and mental health outcomes for teachers; 3) explore differences between men and women in the relationships between experiential avoidance and mental health; 4) examine the moderating role of experiential avoidance in the relationship between student problem behavior stress, low social support, and job dissatisfaction and teacher mental health outcomes; and 5) investigate whether experiential avoidance mediates the association between student problem behavior and mental health.

Research Questions and Study Hypotheses

This study investigated the following research questions:

1. What are the psychometric properties of the Teacher Acceptance and Action Questionnaire (TAAQ)?
2. Is experiential avoidance associated with depression, burnout, and teaching efficacy for teachers?
3. Are there sex differences among teachers in the relationship between EA and depression, burnout, and teaching efficacy?

4. Does EA moderate the association between predictors (job dissatisfaction, low social support and student problem behavior) and criterion variables (depression, burnout, and teaching efficacy)?
5. Does EA mediate the relationship between student problem behavior and depression, burnout, and teaching efficacy?

It was hypothesized that the TAAQ would demonstrate good reliability and validity because it was adapted from a well-established, reliable, and valid measure. The TAAQ was expected to be positively correlated with the AAQ-II. It was also hypothesized that the TAAQ would demonstrate higher correlations than the AAQ-II with study outcome measures because it was designed to assess EA specific to teachers. Additionally, it was hypothesized that depression, emotional exhaustion and depersonalization would be positively correlated with experiential avoidance, while personal accomplishment and teacher efficacy would be inversely related to experiential avoidance. Because this is a non-clinical adult sample, it was hypothesized that there will be no gender differences among relationships between experiential avoidance and study outcomes. Furthermore, it was hypothesized that the relationships between predictor variables (job satisfaction, social support, and perceptions of student problem behavior) and outcome variables (burnout, depression, and teaching efficacy) would be stronger for teachers reporting higher experiential avoidance (see Figure 1). Finally, it was hypothesized that experiential avoidance would explain the relationship between teacher perceptions of student problem behavior and outcome variables (burnout, depression, and teaching efficacy) in teachers (see Figure 2).

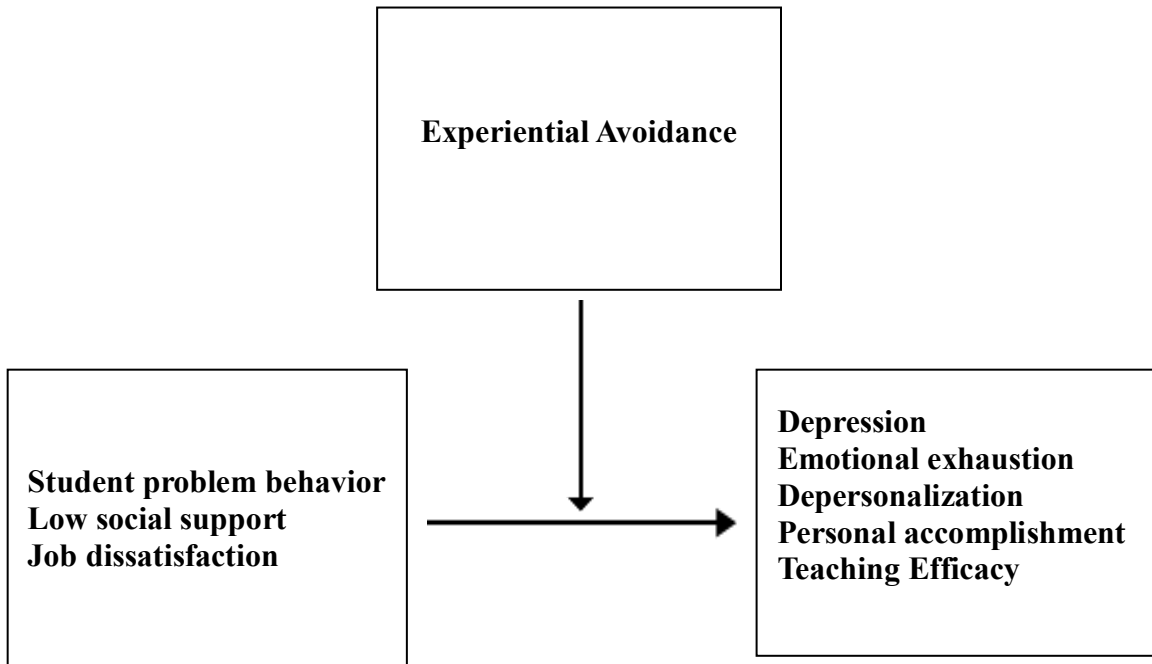


FIGURE 1. Overall hypothesized moderation model between aspects of teacher stress and study outcomes, moderated by experiential avoidance. EA = experiential avoidance.

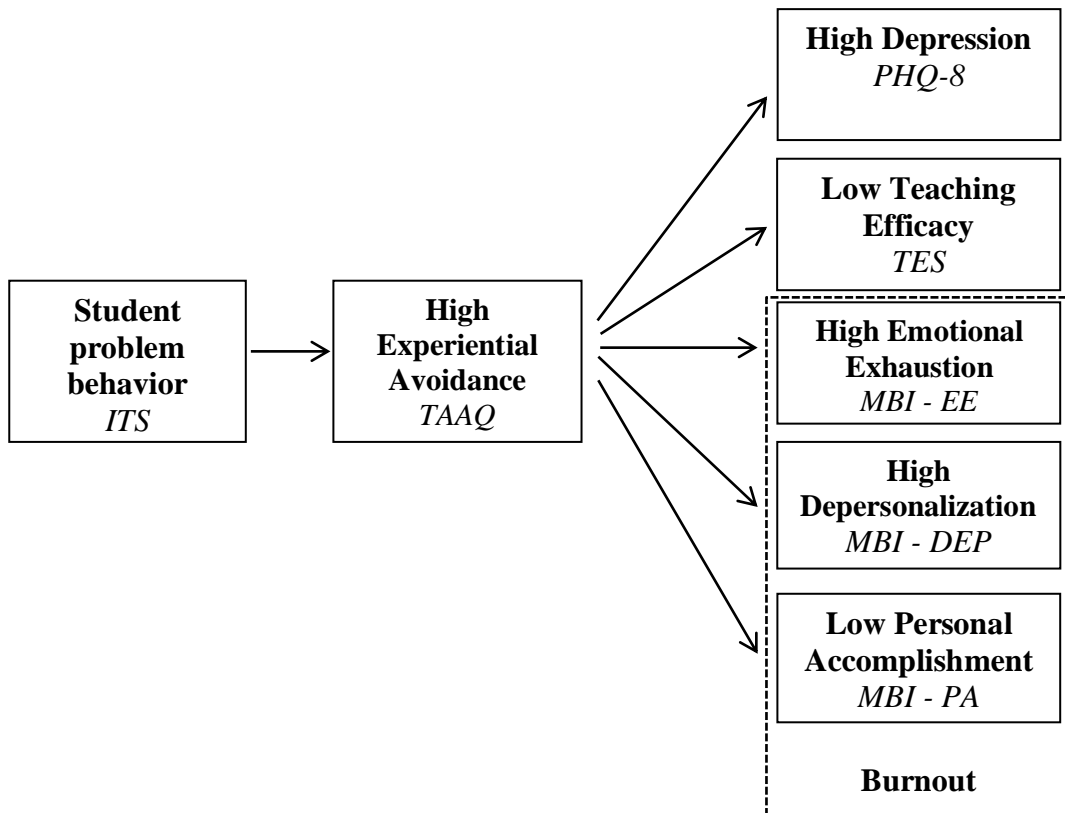


FIGURE 2. Overall hypothesized mediation model between student problem behavior stress and study outcomes, mediated by experiential avoidance. Note: ITS – Index of Teaching Stress Part B; TAAQ – Teacher Acceptance and Action Questionnaire; PHQ-8 – Patient Health Questionnaire – 8-item; TES – Teacher Efficacy Scale; MBI - Maslach Burnout Inventory (EE – Emotional Exhaustion; DEP – Depersonalization; PA – Personal Accomplishment).

CHAPTER II

METHODOLOGY

This study used a non-experimental design to investigate the relationships between student problem behavior, low staff social support, and job dissatisfaction, and experiential avoidance, depression, teacher efficacy, and burnout (as measured by emotional exhaustion, depersonalization, and low personal accomplishment subscales) in Oregon teachers participating in an intervention study, the Teacher Wellbeing Project. Teachers' baseline data was selected out of a larger pool of participant data that included administrators, classified staff, and non-teaching certified staff.

Participants and Procedures

A subsample of teachers ($n = 523$) from Oregon middle and K-8 schools was drawn from the Teacher Wellbeing Project, a randomized controlled trial of an intervention aimed at reducing stress and increasing collegiality among school staff. Schools were located in urban ($n = 18$), large rural ($n = 5$), and small rural ($n = 6$) communities. See Table 1 for a breakdown of participants' demographic characteristics.

Qualtrics online survey software was used to email an online consent form and electronic survey to participants. Participants were compensated \$25 each for completing the survey and schools that reached a return rate of 80% were given an additional \$100. The present study used a subset of questionnaires that focused specifically on school-related stressors, experiential avoidance, and mental health symptoms at baseline.

Measures

A list of study measures, including number of items, purpose, variable type, and alpha coefficient and copies of each measure is located in Appendix B.

Demographic Characteristics

Participants completed a short demographics questionnaire as part of the larger survey. The present study examined the following demographic variables: sex, race/ethnicity, teaching role (general or special education), grade(s) taught, total years teaching, and hours worked per week.

Experiential Avoidance

Acceptance and Action Questionnaire – II (AAQ-II; Bond, et al., 2011) is the most well-established instrument for measuring experiential avoidance. It is a 7-item measure that assesses the degree to which individuals feel they need emotional and cognitive control, to avoid negative thoughts and emotions, and have difficulty taking action when negative thoughts or emotions are present (e.g., my painful experiences and memories make it difficult for me to live a life that I would value). Items are on a 7-point Likert-like scale with 1 = “never true” and 7 = “always true.” For the purposes of this study, AAQ-II items were recoded so that higher scores indicated greater overall experiential avoidance. The AAQ-II has demonstrated good internal consistency with other samples of teachers (Cronbach’s $\alpha = 0.88$).

The Teacher Acceptance and Action Questionnaire (TAAQ) is being examined as part of this study. An initial item pool was created for the by Tony Biglan, Laura Backen Jones, and Erika Hinds. Items were based on the *Acceptance and Action Questionnaire II* (AAQ-II; Bond et al., 2011) and were modified to capture how teacher-specific thoughts or feelings related to psychological flexibility. For example, “Worries get in the way of my success” was modified to “My worries about doing a good job keep me from working effectively” and “It seems like most people are handling their lives better than I am” was

modified to “When I compare myself to other teachers, it seems like most of them are handling their classrooms better than I’m handling mine.” A preliminary set of 30 items was reviewed by several ACT practitioners from Eugene, Oregon. Items were subsequently reviewed by Steven Hayes, one of the developers of the original AAQ and its subsequent versions. Five additional items were added based on his recommendations, for a total of 35 items. Items are rated on a 7-point Likert-type scale (1 = “never or very rarely true”) and (7 = “very often or always true”). For the purposes of this study, AAQ-II items were recoded so that higher scores indicated greater overall experiential avoidance.

Teacher Stress

The following measures were used to examine three aspects of teacher stress: student problem behavior, low perceived social support, and job dissatisfaction.

The Index of Teaching Stress – Part B (ITS-B; ITS; Greene, Abidin, & Kmetz, 1997) is unique in its focus on how teacher stress due to student problem behavior affects teachers’ perceived support from other adults, loss of satisfaction from teaching, disruption of the teaching process, and frustration with parents. Specifically, it was designed to assess teachers’ perceptions of students’ effects on the teaching process, learning environment, and the teacher’s sense of efficacy and satisfaction. This study used a 24-item version of the original 43-item Part B (Teacher Domain). Biglan et al., (2011) utilized data reduction techniques to develop the 24-item version and found that decreasing the number of items did not adversely affect reliability. Items are on a 6-point Likert-like scale and range from 1 = “Strongly Disagree” to 6 = “Strongly Agree.” Sample items include, “Problem behavior negatively affects my ability to enjoy my job,” and “Interacting with the parents of problematic students is frustrating.” Higher scores

indicate a greater sense of hopelessness and ineffectiveness as a teacher. The 24-item version of the ITS has previously demonstrated internal consistency coefficients from .87 to .93.

Staff Social Support (Uden, OrthGomer & Elfosson, 1991) is a five-item measure designed to assess perceptions of the working environment, group cohesion, and quality of relationships between staff. Items were originally on a 4-point scale and were adjusted to a 6-point Likert-like scale for this study (1= “Not at all true” to 6 = “Absolutely true”). Sample items include, “I am getting on well with my co-workers” and “There is good group cohesion at the workplace.” High scores indicate good support. This measure was intended for use across differ types of organizations. It has demonstrated sufficient reliability ($\alpha = .78$; Griffith et al., 1999).

The Job Satisfaction Scale (JS; Warr, Cook., & Wall 1979) is a five-item scale is intended as a brief measure of occupational fulfillment. It has been widely used to measure job satisfaction and job stresses.” Items are on a 7-point Likert-type scale (1= “Extremely Dissatisfied” to 6 = “Extremely Satisfied”). Items ask how satisfied individuals are with, for example, their physical work conditions, immediate supervisors, and freedom to choose their own method of working. This measure has shown high construct and predictive validity and reliability ($\alpha = .78$)

Teacher Mental Health

Teachers’ psychological wellbeing (depression, burnout, and teaching efficacy) were examined with the following measures.

The Patient Health Questionnaire-8 (PHQ-8; Spitzer, Kroenke, & Williams, 1999) is a widely used instrument for measuring depression in research and clinical samples.

The PHQ-8 is an 8-item self-report measure that assesses the severity of depression symptoms that have occurred within the previous two weeks. Items are measured on a 4-point Likert-like scale with 0 = “not at all” and 3 = “nearly every day” and asks about symptoms such as “having little interest or pleasure in doing things” and “feeling down depressed, or hopeless.” Higher overall scores correspond to greater depression severity. There is solid evidence for the reliability ($r = .86- .89$) and criterion validity (Kroenke, Spitzer, & Williams, 2001) of the PHQ-8.

The Maslach Burnout Inventory –Educators Survey (MBI - ES; Maslach, Jackson, & Leiter, 1997) is a widely-used multidimensional measure for assessing burnout in educators. It is a 22-item self-report measure that includes the following subscales: 1) emotional exhaustion (feeling emotionally or physically drained); 2) professional accomplishment (willingness to perform assigned tasks); and 3) depersonalization (negative attitude toward clients). It is intended that each dimension be considered separately and not combined into a single total score. Items are measured on a 7-point Likert-like scale with response choices ranging from 0 = “never” to 6 = “every day.” An example item is, “I feel emotionally drained from my work.” Higher scores on emotional exhaustion and depersonalization subscales correspond to higher levels of burnout, while higher scores on personal accomplishment correspond to lower levels of burnout. There is considerable evidence for the measure’s reliability and validity. Subscale internal consistency coefficients range from .71 to .90 (Maslach, Jackson, & Leiter, 1997).

The Teacher Efficacy Scale (TES; Gibson & Dembo, 1984) is a 30-item measure of teachers’ perceptions of their teaching effectiveness. It is comprised of a personal teaching efficacy scale (teachers’ beliefs about whether their skills and abilities make a

difference students' lives) and a general teaching efficacy scale (teachers' beliefs in their ability to change student outcomes). This study used a 16-item version of global efficacy score that assesses both of these dimensions. Items are on a 6-point Likert-type scale (1= "Strongly Disagree" to 6 = "Strongly Agree"). Sample items include, "If a teacher has adequate skills and motivation, she/he can get through to the most difficult students" and "If students aren't disciplined at home, they aren't likely to accept any discipline" (reverse scored). Teachers' higher scores on this measure indicate they believe their teaching makes a difference and influences student learning. The TES has demonstrated good validity and sufficient reliability ($\alpha = .79$; Gibson & Dembo, 1984).

CHAPTER III

RESULTS

Preliminary Analyses

Predictive Analytics Software 18.0 (PASW; IBM SPSS Inc., 2010) was used to analyze missing data and descriptive statistics. The data were inspected for missing values and the presence of outliers. There were no influential values. Missing value analysis and removal of outliers was informed by the recommendations of Schafer & Graham (2002). Missing data appeared to occur at random. Rates of missing data ranged from 0.0% to 3.4% for study covariates, 0.5% to 5.2% for study predictors, 1.9% to 5.9% for study outcomes, and 3.8% for teacher EA. Despite the low rates of missing data, one-fully imputed data set was produced using maximum likelihood estimates. Imputation occurred after the final set of TAAQ items was determined. Regression diagnostics were performed and model assumptions of normality and linearity were satisfied. Model residual assumptions of normality, homoscedasticity, and independence of observations were also met.

Descriptive statistics were conducted to describe sample characteristics and study variables. Results indicated that the sample included Kindergarten through 12th grade teachers, with most reporting that they taught 7th and 8th grades (see Table 1). The sample was comprised of 357 women and 166 men. The self-identified races/ethnicities of the participants were 87.8% White (n= 459); 3.1% Biracial/Multiethnic (n= 16); 5.2% Hispanic/ Latino (n= 27); 1.0% American Indian or Alaskan Native (n= 5); 1.1% Black or African American (n= 6); 2.1% Asian (n=11); and 3.3% Other (n= 17). The majority

of participants reported being employed as general education teachers (n= 445), while 78 indicated they were special education teachers. Approximately one third of the sample reported having been employed as a teacher longer than 15 years (n= 184). Roughly 75% of participants (n= 396) reported working 41 or more hours per week.

TABLE 1. Demographic Information

Variable	<i>n</i>	%
Sex		
Female	357	68.3
Male	166	31.7
Race/ethnicity		
American Indian or Alaska Native	5	1.0
Asian	11	2.1
Biracial/Multiethnic	16	3.1
Black or African American	6	1.1
Native Hawaiian or other Pacific Islander	17	3.3
White	459	87.8
Other	27	5.2
Hispanic or Latino	5	1.0
Teaching classification		
General education	445	85.1
Special education	78	14.9

Grade(s) taught*		
≤ 5 th grade	234	44.7
6 th grade	153	29.3
7 th grade	254	48.6
8 th grade	304	58.1
≥ 9 th grade	23	4.4
Years teaching		
< 1 year	59	11.3
1-3 years	48	9.2
4-5 years	29	5.5
6-10 years	102	19.5
11-15 years	83	15.9
> 15 years	184	35.2
Hours worked per week		
40 hours or less	127	24.3
41 hours or more	396	75.7

**Note.* Some teachers reported teaching more than one grade, so the total responses for this item exceed the sample size.

Psychometric Properties of the TAAQ

Mplus software Version 6.1 (Muthen & Muthen, 2007) was used to examine the psychometric properties and refine the TAAQ. In the interest of creating a short, easy-to-administer measure of teacher experiential avoidance (EA), the 35-item TAAQ underwent several data reduction steps. First, the individual items on the 35-item TAAQ were assessed for face validity. Four items were removed due to the use of potentially confusing language (e.g., “To be a teacher you need to have a thick skin”) or because the wording was overly specific (e.g., “Mondays, I feel anxious about returning to the classroom”). Next, items that assess how, from an EA perspective, a person copes with potentially stressful contextual influences were identified. Fourteen items that represented behavioral adjustment in the presence of difficult thoughts or feelings were retained for further analysis. Sample items included, “I can stay focused on my role in helping students even when I feel down” and, conversely, “My frustrations with teaching make it hard for me to do my job.” A component analysis of the remaining 14 items was conducted to reduce them to a total of 10 items that loaded .60 or greater on one common factor. A confirmatory factor analysis was estimated using weighted least squares to account for the ordinal nature of the data. Results indicated good model fit ($CFI = .96$, $TLI = .95$, $WRMR = 1.202$).

Reliability

The 10-item TAAQ showed good reliability ($\alpha = .87$). Test retest reliability was not computed given that assessments were one year apart.

Validity

Criterion validity concerns how accurately one construct predicts or co-occurs with another indicator of the same construct. Because this study used baseline data only, a concurrent method was used to establish criterion validity. Specifically, the baseline measure of TAAQ moderate to strong correlations with the AAQ-II ($r = .53$).

Intercorrelations between EA Measures and Mental Health Outcomes

Pearson correlation coefficients were conducted for three measures used for assessing EA and depression, burnout, and teaching efficacy (see Table 2). As hypothesized, EA measured by the TAAQ was positively correlated with depression ($r = .48, p < .001$), emotional exhaustion ($r = .55, p < .001$), and depersonalization ($r = .49, p < .001$), while personal accomplishment ($r = -.46, p < .001$) and teaching efficacy ($r = -.43, p < .001$) were inversely related. As indicated in Table 2, the AAQ-II also showed significant correlations in the expected directions on all outcome measures. The TAAQ demonstrated higher correlations than the AAQ-II on all three burnout subscales and teaching efficacy, while the AAQ-II showed a higher correlation on the depression measure (see Table 2). To assess the significance of the differences between the TAAQ and AAQ-II correlation coefficients, Fisher r-to-z transformation was used to calculate a value of z. Results showed that the differences between the TAAQ and AAQ-II correlation coefficients were not statistically significant for the burnout subscales or for the teaching efficacy measure. A statistically significant difference was found, however, between the TAAQ and AAQ-II correlation coefficients on the depression measure ($z = 2.27, p < .05$). This means that the association between the AAQ-II and the depression measure was significantly higher than it was for the TAAQ.

Although not statistically significant, the TAAQ demonstrated higher correlations on teaching efficacy and all three burnout subscales. Additionally, the TAAQ demonstrated good internal consistency and validity. Based on these findings, the TAAQ was used as the single measure of EA for all subsequent analyses.

TABLE 2. Correlations Between Experiential Avoidance Measures and Study Outcomes

	TAAQ	AAQ-II
Depression	.48	.58
Teacher Efficacy	-.43	-.27
Burnout – emotional exhaustion	.55	.41
Burnout – depersonalization	.49	.28
Burnout – personal accomplishment	-.46	-.35
Mean	5.45	5.77
Standard deviation	0.81	0.79

Note. All correlations are significant at $p < .001$.

Sex Differences in the Association between EA and Mental Health

Prior to examining the strength of the association between EA and depression, burnout, and teaching efficacy for men and women, differences in mean levels of EA were examined. Results indicated there were no statistically significant differences between men ($M = 5.47$, $SD = 0.77$) and women ($M = 5.44$, $SD = 0.90$). Next, gender differences in the association between EA and mental health outcomes were investigated. The correlation matrix revealed slightly higher associations between EA and *all* study outcome measures for women. Subsequently, the statistical significance of the differences between the correlation coefficients for men and women were tested (see Table 3). First, a Fisher r -to- z transformation was used to convert the r values into standard score form (z scores) to ensure that the sampling distributions were approximately normal. The p -values obtained indicated there were no statistically significant differences in the strength of the correlations between experiential avoidance and any of the study outcome measures for men and women. In other words, experiential avoidance did not explain significantly more of the variance in negative psychological health outcomes for females than for males.

TABLE 3. Statistical Significance of the Differences Between Men’s and Women’s Experiential Avoidance and Outcome Measures Correlation Coefficients

Scale	<i>z</i>	<i>p</i>
Depression	0.83	0.41
Teaching Efficacy	-1.74	0.08
Emotional Exhaustion	1.48	0.14
Depersonalization	0.44	0.66
Personal Accomplishment	-0.49	0.62

EA as a Moderator

Hierarchical multiple regression models were performed to test the hypothesis that experiential avoidance influences the strength of the relationship between the predictor variables (job satisfaction, student problem behavior distress, and social support) and the outcome variables (depression, burnout, and teaching efficacy). An interaction effect is established when a moderator variable significantly alters the direction or strength of the relationship between a predictor and an outcome variable (Aiken & West, 1991). The interaction effect in a moderated regression model is estimated by including a cross-product term as an additional exogenous variable. A subsequent hierarchical, incremental *F* test is implemented to ascertain whether the interaction term adds more to the relationship than what was observed with the predictors alone.

More specifically, for each hypothesized main effect model (between each predictor variable and the mental health variables), teacher EA was added to each main effects model, along with the interaction term with each study predictor. Because 15

interaction models were tested, a Benjamini-Hochberg false discovery rate (Thissen, Steinberg, & Kuang, 2002) correction was made to p -values to protect against Type-I error rates.

A significant job satisfaction by experiential avoidance interaction effect was found ($t = 3.40, p < .001$). Examination of simple slopes (Aiken & West, 1991) was used to decompose the significant interaction between job satisfaction and teacher experiential avoidance. A simple slope is defined as the regression of the outcome on the predictor at a specific value of the moderator. Following recommendation by Cohen and Cohen (1983), values of EA at the mean and 1 standard deviation above and below the mean were selected as the conditional values of the moderator (values less than 4.95 corresponded to approximately one standard deviation below the mean). Examination of simple slopes showed job dissatisfaction is more correlated with depression, in the expected direction, at high levels of EA.

EA as a Mediator

Hierarchical multiple regression was used to test the effect of the mediator variable, experiential avoidance, on each dependent variable with teacher perceptions of student problem behavior as the predictor (see Figure 1). Baron and Kenny's (1986) four criteria of mediation, in conjunction with a test of the indirect effect using a bootstrap approach (Preacher & Hayes, 2008), were used to test the models. MacKinnon et al. (2002) recommend using a bootstrap approach over the Sobel test because, after extensive examination, they found that bootstrapping demonstrated higher power while preserving reasonable control over the Type I error rate.

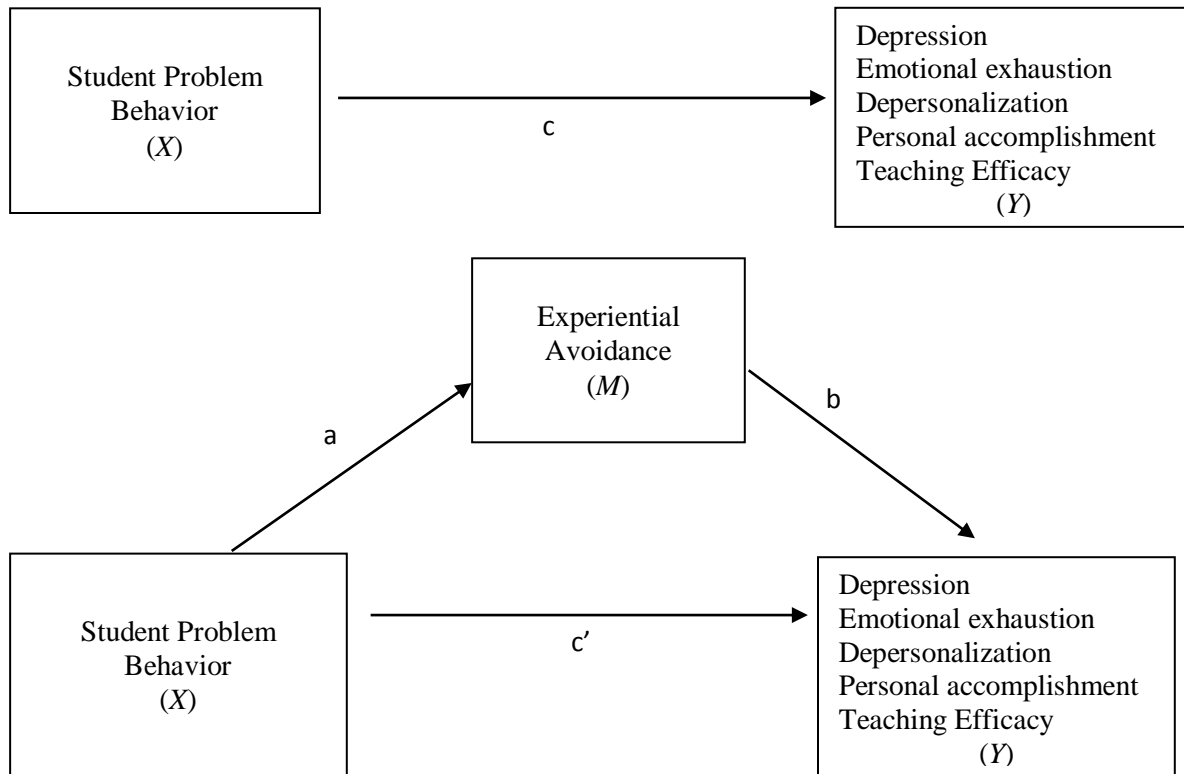


FIGURE 3. Illustration of hypothesized mediation model. Student Problem Behavior(X) and mental health outcomes (Y), with Experiential Avoidance as the mediator variable (M). X is hypothesized to exert an indirect effect on Y through M.

According to Barron & Kenny (1986), the following criteria must be met for mediation: 1) the predictor variable must be significantly associated with the outcome variables; 2) the predictor variable must be significantly associated with the mediator; 3) the mediator must be significantly associated with the outcome variables; and 4) the impact of the predictor variable on the outcome variables must be less after controlling for the mediator. Additionally, the bias corrected bootstrap results of the indirect effects must be significant.

Criterion 1

Regressions of the five outcome measures on student problem behavior subscale scores, (path c in Figure 3), were tested. Results showed that student problem behavior was significantly associated with depression, each of three burnout subscales, and teacher efficacy (see Table 2).

Criterion 2

Next, the effect of student problem behavior on the mediator, experiential avoidance, was tested (path A). A statistically significant effect was found between student problem behavior and experiential avoidance (see Table 5).

Criterion 3

In the third step, the effect of experiential avoidance on the five outcome measures was tested (path b). Results showed that experiential avoidance was significantly associated with depression, each of three burnout subscales, and teacher efficacy (see Table 2).

Criterion 4

The effect of student problem behavior on depression, burnout, and teacher efficacy, controlling for experiential avoidance was tested (path c'). Results revealed that, when controlling for experiential avoidance, student problem behavior scores were no longer a significant predictor of depression. Additionally, results demonstrated a decrease in the strength of the associations between student problem behavior and all three burnout subscales and teacher efficacy.

Test of the Indirect Effect

To test the statistical significance of the indirect effect, a 95% confidence interval was obtained using the empirically-derived bootstrapped sampling distribution. Bootstrapping is a nonparametric resampling procedure recommended for testing mediation (Preacher & Hayes, 2008). It involves repeated sampling from the data set with estimation of the indirect effect in each resampled data set. The process is repeated thousands of times and results in an empirical approximation of the sampling distribution of the indirect effect of the predictor variable on the outcome variable through the mediator variable. The approximated sampling distribution is used to construct a confidence interval for the indirect effect.

Bias corrected bootstrap results for the indirect effects demonstrated mediation for each model as evidenced by the indirect effects estimates not containing zero in the 95% confidence interval (see Table 5). The true indirect effect for depression, for example, was estimated to lie between 0.109 and 0.178 with 95% confidence. Given that zero is not in the confidence interval, it is ascertained that the indirect effect is significantly different from zero at $p < .05$ (two tailed). The models examining the each of the three burnout subscales and teacher efficacy also revealed that zero was not in the confidence intervals, suggesting mediation.

Complete mediation occurs when the inclusion of the mediation variable lowers the correlation coefficient between the predictor and outcome variables to zero. Thus, complete mediation is a 100% decrease in r . In the model examining depression as the outcome variable, the decrease in r was 93.5%. This suggests an almost complete mediation by experiential avoidance of the direct effect of student problem behavior on

depression. Percent decrease in the correlation coefficients for the burnout subscales and teacher efficacy ranged from 29.5 to 67.4, suggesting partial mediation by experiential avoidance (see Table 4).

TABLE 4. Test of Teacher EA as Mediator of Relationships Between Student Problem Behavior on Study Outcomes

<i>Baron & Kenny's Four Criteria for Mediation</i>					
	<i>B</i>	<i>SE</i>	<i>t</i> -ratio	<i>p</i>	<i>r</i>
1. Effect of predictor on outcome					
student problem behavior → depression	0.15	0.02	7.16	.013	.31
student problem behavior → burnout – EE	0.48	0.04	10.84	.001	.43
student problem behavior → burnout – DEP	0.50	0.04	13.02	<.001	.50
student problem behavior → burnout – PA	-0.31	0.03	-11.77	.002	.46
student problem behavior → efficacy	-0.32	0.02	-16.15	.001	.61
2. Effect of predictor on mediator					
student problem behavior → EA	-0.47	0.03	-17.39	<.001	.61
3. Effect of mediator on outcome					
EA → depression	0.30	0.03	12.35	<.001	.48
EA → burnout – EE	0.80	0.05	15.09	<.001	.55
EA → burnout – DEP	0.63	0.05	12.72	<.001	.49
EA → burnout – PA	-0.40	0.03	-11.91	<.001	.46
EA → efficacy	-0.32	0.03	-11.53	<.001	.50
4. Effect of predictor on outcome controlling for mediator					
student problem behavior → depression EA	0.01	0.02	0.35	.126	.02
student problem behavior → burnout – EE EA	0.17	0.05	3.27	.002	.14
student problem behavior → burnout – DEP EA	0.32	0.05	6.86	<.001	.29
student problem behavior → burnout – PA EA	-0.19	0.03	-5.95	<.001	.25
student problem behavior → efficacy EA	-0.27	.03	-10.81	<.001	.43

<i>Bias Corrected Bootstrap Results for Indirect Effects (Preacher & Hayes, 2008) and Percent Change in Effect Sizes (r)</i>			
	95% CI		% Decrease in <i>r</i>
	Lower	Upper	
student problem behavior → depression EA	.109	.178	93.5
student problem behavior → burnout – EE EA	.246	.387	67.4
student problem behavior → burnout – DEP EA	-.165	-.075	42.0
student problem behavior → burnout – PA EA	-.163	-.079	45.7
student problem behavior → efficacy EA	-.081	-.021	29.5
<i>Notes. B = beta coefficient; SE = standard error; pr = partial regression coefficient; = controlling for; EE = emotional exhaustion, DEP = depersonalization, PA = personal accomplishment, EA = experiential avoidance.</i>			

In summary, results of statistical analyses provided empirical support for the study hypotheses. The 10-item Teacher Acceptance and Action Questionnaire (TAAQ) demonstrated good reliability and validity. Experiential avoidance, as measured by the TAAQ and the Acceptance and Action Questionnaire II (AAQ-II), was significantly positively associated with depression, emotional exhaustion, and depersonalization, and significantly negatively associated with teaching efficacy and personal accomplishment. Examination of sex differences in the associations between experiential avoidance and the mental health variables indicated that experiential avoidance was slightly more strongly associated with all of the mental health outcomes for women. The differences, however, were not statistically significant. Additionally, teacher experiential avoidance

was found to have a moderating effect in the relationship between job dissatisfaction and depression. Experiential avoidance also appeared to function as a mediator in the relationship between student problem behavior and each of the teacher mental health variables.

CHAPTER IV

DISCUSSION

The aims of the present study were to 1) examine the psychometric properties of a new measure of teacher experiential avoidance; 2) investigate the relationships between experiential avoidance and mental health outcomes for teachers; 3) explore differences between men and women in the relationships between experiential avoidance and mental health; 4) examine the moderating role of EA in the relationship between student problem behavior stress, low social support, and job dissatisfaction and teacher mental health outcomes; and 5) investigate whether EA mediates the association between student problem behavior and mental health.

As hypothesized, Principal Component Analysis and Confirmatory Factor Analysis revealed that the TAAQ, a measure of teacher experiential avoidance, was a psychometrically sound instrument with good reliability and validity. Univariate regression results supported the hypothesized relationships between teacher stress variables, experiential avoidance, and mental health variables. That is, experiential avoidance was significantly correlated in the expected directions with the mental health variables. The teacher stress variables were also significantly associated in the expected direction with the mental health variables. Regression analyses, with experiential avoidance added as the hypothesized moderator between teacher stress measures and mental health measures, showed a significant interaction effect, suggesting that the relationship between job dissatisfaction and depression is strengthened by higher levels of experiential avoidance. Finally, bias-corrected bootstrap results of the relationships between student problem behavior and each of the mental health variables demonstrated

partial to near-complete mediation by experiential avoidance indicating that the relationship between student problem behavior and mental health is minimized when removing the effect of EA.

Primary Findings

A new measure of teacher experiential avoidance was refined and examined for its psychometric properties. A data reduction process combining assessment of face validity of individual items and a principal component analysis resulted in a one-dimensional 10-item instrument. In a sample of 523 teachers, the final measure demonstrated good internal consistency and model fit, and it correlated as predicted with established measures of psychological health. The TAAQ showed higher, non-statistically significant, correlations than the AAQ-II on all outcome variables except depression. The AAQ-II showed a significantly higher correlation with depression when compared with the TAAQ at the .05 level. One explanation for this finding is that the study measures assessing efficacy and burnout were designed for use with teachers specifically (i.e., Teaching Efficacy Scale and the MBI-Educator Survey).

It makes sense conceptually that the TAAQ would demonstrate higher correlations with these measures given it was designed for use with teachers. Likewise, the AAQ-II was developed as a general measure of experiential avoidance just as the PHQ-8 was intended for use in general populations. This finding is, to some degree, consistent with Luoma and colleagues' (2011) suggestion that content-specific measures of experiential avoidance intended for particular populations or disorders are more precise. It is possible that people may report using different coping styles, such as avoidance, only under specific circumstances, which may explain why content-specific

measures are better at predicting treatment outcomes. For example, a person with a substance abuse disorder may not respond in the same way to an item on a general measure of experiential avoidance such as, “Emotions cause problems in my life,” but the might endorse the item, “Urges and cravings cause problems in my life.” Likewise, teachers may not endorse, “My painful memories prevent me from having a fulfilling life,” while they might be more inclined to endorse, “After a difficult interaction at school, I have a hard time turning my attention back to my teaching responsibilities.” This notion is consistent with Moos’ (1984) research regarding the determinants of different coping styles. He found that contextual factors cued the type of coping strategies individuals’ utilized. For example, avoidance coping tended to occur when secondary appraisal resulted in perceived lack of personal or environmental resources. With regard to teachers, for instance, they may determine that they are lacking adequate social support resources at work and, subsequently, be more likely to report using a passive coping style such as avoidance.

Overall, the TAAQ appears to be a psychometrically sound measure of teacher experiential avoidance. Further refinement is possible, however, and study weaknesses and recommendations for improving the TAAQ are addressed in the study limitations below.

Next, consistent with the considerable evidence linking experiential avoidance with psychological problems (e.g., Hayes et al., 2004 & 2006; Kashdan et al., 2006) this study found statistically significant correlations in expected directions between experiential avoidance and depression, teacher efficacy, and the emotional exhaustion, depersonalization, and personal accomplishment subscales of the MBI. That is, teachers

reporting higher experiential avoidance were also reporting higher depression, emotional exhaustion, and depersonalization of students, and a reduced sense of personal accomplishment and efficacy in their teaching. Postulations about these findings are summarized at the end of this section.

Additionally, analyses comparing men and women on experiential avoidance revealed no significant differences in mean scores. The correlation coefficients between experiential avoidance and mental health outcomes by sex indicated slightly higher, yet non-statistically significant, associations for women across all of the outcome measures. These results are consistent with findings of Hayes and colleagues (2004) showing that women demonstrated higher AAQ scores than men within clinical samples, but demonstrated no differences in non-clinical samples. These results are inconsistent with Biglan et al (in prep) findings with a non-clinical sample that showed the relationships between EA and negative mental and behavioral health outcomes was stronger for adolescent girls than for adolescent boys. It is possible that experiential avoidance is a mechanism that is used more during adolescence for girls and subsides into adulthood. More research is needed in this area. Overall, results suggest that experiential avoidance is an important construct in the psychological wellbeing of teachers.

In addition to demonstrating strong significant correlations with measures of teacher mental health, results from the present study suggest that experiential avoidance plays an integral role in the relationship between teachers' job dissatisfaction and depression. Specifically, regression analyses examining the moderating effect of experiential avoidance indicated that the relationship between job dissatisfaction and depression is stronger for teachers reporting a high level of experiential avoidance.

Results are consistent with findings from Bond & Flaxman's (2006) longitudinal study of call center workers, in which the positive effects of an elevated sense of job control on mental health increased with higher levels of experiential *acceptance*.

It was also found that experiential avoidance significantly mediated the relationship between student problem behavior and all five measures of psychological distress. That is, once experiential avoidance was included in the models, the previously significant paths between student problem behavior and mental health variables were no longer significant. Statistically significant results of the bias corrected bootstrap tests for indirect effects provided support for these findings. A nearly total mediation of the relationship between student problem behavior and depression by experiential avoidance (decrease in $r = 93.5\%$) was found. These findings suggest that teachers' emotional reactions to student problem behaviors is associated with increased risk for depression via the pathway of high experiential avoidance. It was also found that experiential avoidance partially mediated the relationships between student problem behavior and 1) emotional exhaustion, 2) depersonalization, 3) personal accomplishment, and 4) teacher efficacy. Overall, moderation and mediation results suggest that teachers with propensities toward being experientially avoidant are at greater risk of experiencing decreased mental health. Again, interpretation of results was made with caution given the cross-sectional nature of the study.

In sum, overall findings from the present study point to the significance of experiential avoidance in teachers' mental health. It is possible that ongoing stress associated with managing students' problem behavior, perceptions of low social support, and overall job dissatisfaction may increase experiential avoidance in teachers, which

may contribute to mental health problems. It is also feasible that teachers who are prone to being highly experientially avoidant are more likely to experience negative mental health outcomes in response to chronic stressors. Difficult interactions with students, colleagues, or parents, for example, are likely associated with negative or painful thoughts, feelings, and bodily sensations. Suppressing, or avoiding, negative thoughts or feelings about others or even themselves may help teachers cope in the short-term. The literature suggests, however, that chronic avoidance or suppression of such internal experiences paradoxically results in increased psychopathology (Rassin, Merckelbach, & Muris, 2000; Wegner & Erber, 1992). Conversely, the ability to be present, accepting, and nonjudgmental of negative private experiences may prevent escalation of such experiences into more serious problems such as depression, emotional exhaustion, depersonalization, and decreased sense of accomplishment and efficacy in teaching. Given the limitations of the study, however, additional research is needed to explore the validity of these interpretations.

Study Limitations

Methodological limitations of this study should be noted and interpretation of results should be conducted with appropriate caution. To begin with, the study used a cross-sectional research design, which makes it impossible to ascertain whether changes in the predictor variables (student problem behavior, social support, and job satisfaction) preceded changes in the criterion variables (depression, burnout, and teaching efficacy). That is, causal relationships among the variables cannot be assumed because temporal precedence was not established. The sample consisted of primarily Caucasian teachers from Oregon, so generalizability of the findings may be limited. Additionally, the study

relied exclusively on self-report data, which potentially impacted the accuracy of the data via respondent bias (e.g., social acceptability, selective memory, exaggeration). Surveys were collected confidentially online, reducing the likelihood of dishonesty. The validity of any interpretation also relies on the assumption that the participants understood the questions. Finally, the primary measure of stress used in this study assessed teachers' perceptions of how student problem behavior impacted the teaching process, learning environment, and the teacher's sense of efficacy and satisfaction. Subsequently, an additional limitation of the present study is that it lacked a measure of the degree to which work circumstances, such as role conflict and work overload, were perceived as stressful.

Limitations of the TAAQ include the lack of generalizability of the sample and the absence of a separate validation sample to test model fit. Additional work including examining test-retest validity, investigating model fit with diverse samples, and using longitudinal data to further refine the TAAQ is recommended.

Research Implications

The literature suggests that, in addition to problem student behavior and difficult interpersonal interactions with co-workers, aspects of work that cause the most dissatisfaction for teachers includes job insecurity, overcrowded classrooms, and increased hours. Unfortunately, intervening across all of these areas would prove quite challenging and the benefits would likely not occur soon enough. Emerging research (e.g., Hinds et al, in press; Biglan et al., 2011) along with the results of the present study point to the utility of implementing interventions aimed at decreasing experiential avoidance in teachers. It is possible that increasing experiential *acceptance*, the opposite of experiential avoidance, may serve to buffer against the long-term negative outcomes

associated with teacher stress and dissatisfaction. There is evidence that acceptance- and mindfulness-based interventions, such as Acceptance and Commitment Therapy/Training (ACT) are useful in organizational settings (Bond & Bunce, 2000; 2003) and there is some indication for their benefit to teachers (Biglan et al., 2011). ACT is a third-wave cognitive behavioral therapy incorporating mindfulness-based behavior techniques along with values clarification and cognitive defusion strategies aimed at creating a rich and meaningful life, even amid difficult thoughts and feelings (Hayes, Strosahl, & Wilson, 1999). Over 35 RCTs have demonstrated its effectiveness with a diverse range of clinical conditions. RCTs of ACT-based workshops in organizational settings have shown promise for its use with non-clinical samples (Bond & Bunce, 2000; 2003). Well-designed longitudinal randomized controlled trials are needed to assess the effects of interventions such as ACT for teachers.

Future research examining the association between teacher wellbeing and student academic success and healthy development is also needed. There is already some evidence in the literature regarding this important link. Additional longitudinal studies examining the long-term impact of the teacher-student relationship on young people's wellbeing may provide support for improving school policy so that the health and wellbeing of teachers is supported. Furthermore, additional contextual variables, such as school leadership, school setting (i.e., urban and rural), socio-economic status, ethnic composition of students, and parent-teacher relationships should be examined in relation to teacher wellbeing. Hierarchical linear modeling is recommended for future studies examining contextual variables, such as school leadership and school setting, given the nested nature of the data.

Additional studies of teacher stress would benefit from including a specific measure of work stress, such as the Occupational Stress Inventory (Osipow & Spokane 1987) or the Work Environment Scale (Moos, 1981). Data collection focusing on teachers' perceived strengths and resiliencies, as well as what they identify as being most helpful in supporting their success and wellbeing, would also be beneficial for intervention and policy development. Finally, future studies using a community-based participatory research model (CBPR) in which research is conducted as an equal partnership between teachers and traditionally-trained researchers is recommended. CBPR has been shown to improve the quality and validity of research because it incorporates the knowledge and experience of those directly involved in the community, increases trust in the research process, and addresses cultural differences that may exist between researchers and community members (Israel, Schulz, Parker, & Becker, 1998).

Practice Implications

In this sample, approximately 76 percent of teachers indicated they worked over 41 hours per week when school is in session. If work is causing teachers to feel stressed, frustrated, and ineffective, it is likely adversely impacting their overall mood and functioning for large parts of their days. Because of this, teachers may be at increased risk of experiencing depression and other forms of psychological distress. It can be inferred then, that the degree to which teachers feel satisfied with their work is an important mental health issue. Clinicians working with teachers might counsel them to critically evaluate how they feel about their work and help them identify how they typically cope with work-related stress.

Additionally, acceptance and mindfulness approaches, such as ACT (Hayes, Strosahl, & Wilson, 1999) have been shown to decrease experiential avoidance, while helping individuals move toward what really matters in their lives. This approach could be particularly helpful for teachers, who tend to go into the field because they value education and want to make differences in students' lives.

Conclusion

This study provides a new psychometrically sound measure of teacher experiential avoidance and furthers our understanding of the relationships between stress, experiential avoidance, and mental health in teachers. Study results are consistent with the growing literature associating experiential avoidance to negative mental and behavioral health outcomes for various populations (Hayes et al., 1996) including teachers (Biglan et al, 2011). Findings point to the potential value of acceptance-based interventions such as Acceptance and Commitment Therapy/Training (ACT; Hayes, Strosahl, & Wilson, 1999) for reducing experiential avoidance in teachers. Randomized controlled trials of ACT-based workshops in other organizational settings have shown promise for its use with non-clinical samples (e.g., Bond & Bunce, 2000; 2003). Reducing experiential avoidance through such interventions may decrease the potentially negative impact of stressful work conditions on teachers' psychological wellbeing. Future research utilizing a randomized control design examining the utility of acceptance-based interventions in schools is warranted. Additionally, research examining the role of experiential avoidance in teacher stress and mental health using longitudinal data is also recommended. Finally, studies should examine the role of experiential avoidance in the relationship teacher stress and mental health in diverse populations.

APPENDIX A

HUMAN SUBJECTS APPROVAL



UNIVERSITY OF OREGON

Research Compliance Services
University of Oregon Institutional Review Board

DATE: December 28, 2011 **IRB Protocol Number: 12212011.021**

TO: Erika Hinds, Principal Investigator
Department of Counseling Psychology and Human Services

RE: Protocol entitled, "Middle School Teacher Stress, Psychological Flexibility, and Mental Health"

**Notice of Review and Determination-Not Human Subject Research
as per Title 45 CFR Part 46.102 (c-f)**

Research Compliance Services has reviewed the proposed study project named above. Based on submitted materials and the project description, the study activities do not meet the definition of research with human subjects according to Title 45 CFR 46.102 (c-f).

You may conduct your activities as described without further submission. However, if the activities described are implemented in conjunction with any other human experimentation or if this project is modified to involve research with human subjects, you will need to submit a new protocol application for review by Research Compliance Services and/or the University of Oregon Institutional Review Board (IRB).

If you have any questions regarding your protocol or the review process, please contact Research Compliance Services at human_subjects@orc.uoregon.edu or (541)346-2510.

Sincerely,

Mary Hanabury, Assistant Director
Research Compliance Services
University of Oregon

CC: Elizabeth Stormshak, Faculty Advisor

COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS • RESEARCH COMPLIANCE SERVICES
1600 Millrace Drive, Suite 105, 5237 University of Oregon, Eugene OR 97401-5237
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APPENDIX B

MEASURES

Demographics Questionnaire

1. What is your sex?

Male

Female

2. What is your race/ethnicity?

American Indian or Alaska Native

Asian

Biracial/Multiethnic

Black or African American

Native Hawaiian or other Pacific Islander

White

Other

Hispanic or Latino

3. What grade(s) do you teach?

5th grade or lower

6th grade

7th grade

8th grade

9th grade or higher

4. What is your teaching role?

General education

Special Education

5. How many years have you been a teacher or aide?

Less than 1 year

1-3 years

4-5 years

6-10 years

11-15 years

More than 15 years

6. How many hours do you work per week?

40 hours or less

41 hours or more

Acceptance and Action Questionnaire - II

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1. = Never true
2. = Very Seldom true
3. = Seldom true
4. = Sometimes true
5. = Frequently true
6. = Almost always true

1. It's OK if I remember something unpleasant.
2. My painful experiences and memories make it difficult for me to live life that I would value.
3. I'm afraid of my feelings.
4. I worry about not being able to control my worries and feelings.
5. My painful memories prevent me from having a fulfilling life.
6. I am in control of my life.
7. Emotions cause problems in my life.
8. It seems like most people are handling their lives better than I am.
9. Worries get in the way of my success.
10. My thoughts and feelings do not get in the way of how I want to live my life.

Teacher Acceptance and Action Questionnaire (TAAQ)

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1. = Never true
2. = Very Seldom true
3. = Seldom true
4. = Sometimes true
5. = Frequently true
6. = Almost always true

1. My frustrations with teaching make it hard for me to do my job.
2. My worries about doing a good job keep me from working effectively.
3. I find myself being distracted at school by my worries.
4. When I am distressed by my coworkers behaviors, I find it hard to do my job.
5. I sometimes feel very distracted by my negative thoughts about students.
6. I can stay focused on my role in helping students even when I feel down.
7. I don't let strong feelings get in the way of teaching
8. When I'm feeling down at work, I have trouble engaging with others.
9. I can't work effectively when administrators do things to upset me.
10. After a difficult interaction at school, I have a hard time turning my attention back to my teaching responsibilities.

Initial TAAQ Item Pool

1. My frustrations with teaching make it hard for me to do my job.
2. I can teach effectively even when I'm feeling disrespected by administrators.
3. My worries about doing a good job keep me from working effectively.
4. I find myself being distracted at school by my worries.
5. I can feel frustrated by a disruptive student and still do what I need to do.
6. I try hard not to take the behavior of difficult coworkers personally.
7. I have trouble teaching if colleagues disagree with my methods.
8. When I feel overwhelmed, I find it difficult to try anything new.
9. I can still teach effectively with disruptive students.
10. When I am distressed by my coworkers behaviors, I find it hard to do my job.
11. I don't like others to observe me teaching.
12. I am willing to have the challenges that difficult students produce, because it is all part of making a difference in students' lives.
13. I avoid talking to colleagues about difficulties I am having at school.
14. Frustration is just a natural part of teaching.
15. When a student seems sad or upset, I tend to avoid asking him or her about it.
16. I sometimes feel very distracted by my negative thoughts about students.
17. I can shift my attention toward what matters at work even when I have thoughts about how I'm being treated unfairly.
18. Mondays, I feel anxious about returning to the classroom.
19. When I'm tired I cannot function well.

20. When I'm ineffective in handling a disruptive student, I'm willing to try something new.
21. When I compare myself to other teachers, it seems like most of them are handling their classrooms better than I'm handling mine.
22. I dislike it when I don't have control of my classroom.
23. I don't let emotions get in the way of what I need to do at school.
24. I can stay focused on my role in helping students even when I feel down.
25. To be a teacher you need to have a thick skin.
26. I don't let strong feelings get in the way of teaching
27. In my role as a teacher, I am the strong, silent type.
28. My job is to teach students, not to be a counselor to them.
29. I take an interest in how my students feel.
30. I have little patience for dealing with "touchy feely" stuff.
31. I have a hard time getting over painful or angry feelings after a difficult interaction with a coworker.
32. When I'm feeling down at work, I have trouble engaging with others.
33. I can't work effectively when administrators do things to upset me.
34. When I feel frustrated at work, I wonder why I ever went into teaching in the first place.
35. After a difficult interaction at school, I have a hard time turning my attention back to my teaching responsibilities.

Index of Teaching Stress (ITS)

Please indicate how much you agree or disagree with each statement by circling the appropriate numeral to the right of each statement.

Strongly disagree =1; Disagree 2; Slightly disagree =3; Neither agree or disagree =4;
Slightly agree =5; Agree =6; Strongly agree =7

1. Problem behavior negatively affects my ability to enjoy my life outside of school.
2. Nothing I do seems to help problematic students.
3. Certain students adversely affect my ability to enjoy teaching.
4. I do not feel as close to or warmly about children who exhibit problematic behavior.
5. Students with problematic behavior do things that bother me a great deal.
6. Students with problematic behavior prevent me from doing things I'd like to do with my whole class.
7. I feel embarrassed by problematic student behavior in public.
8. Having students with problematic behavior in my class is frustrating.
9. Interacting with the parents of problematic students is frustrating.
10. I feel I should be in better control of problem behavior.
11. Students with problematic behavior make my school day less enjoyable.
12. I have this feeling I cannot handle problematic students very well.
13. For some students, I feel I am not being a very good teacher.
14. I feel embarrassed by some students' lack of progress.

15. I have doubts about my ability to handle being the teacher of problematic students.
16. I am exhausted by the energy it takes to monitor students with problematic behavior.
17. Problematic behavior makes me question my decision to be a teacher.
18. Students with problematic behavior increase the problems I have with other children.
20. I am not doing as well as other teachers with problematic students.
21. I am intolerant of the challenges some students present.
23. I do not enjoy teaching students with problematic behavior.
24. I feel embarrassed by some children.

Maslach Burnout Inventory – Educators Survey

In the following there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, select a "0" (zero) in the bubble for the statement. If you have had this feeling, indicate how often you feel it by selecting the bubble (from 1 to 6) that best describes how frequently you feel that way.

Never = 0; A few times a year or less = 1; Once a month or less = 2; A few times a month = 3; Once a week = 4; A few times a week = 5; Every day = 6

Emotional Exhaustion Subscale

1. I feel emotionally drained from my work.
2. I feel used up at the end of the workday.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
6. Working with people all day is really a strain for me.
8. I feel burned out from my work.
11. I worry that this job is hardening me emotionally.
13. I feel frustrated by my job.
14. I feel I'm working too hard on my job.
16. Working with people directly puts too much stress on me.
20. I feel like I'm at the end of my rope.

Personal Accomplishment Subscale

- 7. I deal very effectively with the problems of my students.
- 9. I feel I'm positively influencing other people's lives through my work.
- 19. I have accomplished many worthwhile things in this job.
- 18. I feel exhilarated after working closely with my students.
- 17. I can easily create a relaxed atmosphere with my students.
- 21. In my work, I deal with emotional problems very calmly.
- 12. I feel very energetic.

Depersonalization Subscale

- 10. I've become more callous toward people since I took this job.
- 15. I don't really care what happens to some students.
- 22. I feel students blame me for some of their problems.

Teaching Efficacy Scale (TES)

Please indicate how much you agree or disagree with each statement by circling the appropriate numeral to the right of each statement.

Strongly disagree =1; Disagree 2; Slightly disagree =3; Neither agree or disagree =4;
Slightly agree =5; Agree =6; Strongly agree =7

1. When a student does better than usual, many times it is because I exerted a little extra effort.

2. The hours in my class have little influence on students compared to the influence of their home environment.

4. The amount that a student can learn is primarily related to family background.

6. If students aren't disciplined at home, they aren't likely to accept any discipline.

12. When a student is having difficulty with an assignment, I am usually able to adjust it to his/her level.

When a student gets a better grade than he usually gets, it is usually because I found better ways of teaching that student.

15. When I really try, I can get through to most difficult students.

16. A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement.

19. When the grades of my students improve it is usually because I found more effective teaching approaches.

21. If a student masters a new math concept quickly, this might be because I knew the necessary steps in teaching that concept.
23. If parents would do more with their children, I could do more.
24. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.
25. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him quickly.
27. The influences of a student's home experiences can be overcome by good teaching.
29. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.
30. Even a teacher with good teaching abilities may not reach many students.

Patient Health Questionnaire - 8

1. Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly everyday
	0	1	2	3
a. Little interest or pleasure in doing things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Feeling down, depressed, or hopeless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Trouble falling/staying asleep, sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Feeling tired or having little energy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Poor appetite or overeating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Feeling bad about yourself – or that you are a failure or have let yourself or your family down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Trouble concentrating on things, such as reading the newspaper or watching television.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Moving or speaking so slowly that other people could have notices. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not Difficult at all	Somewhat Difficult	Very Difficult	Extremely Difficult
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Job Satisfaction Scale

How satisfied are you with following at your job?							
	Extremely Dissatisfied	Very Dissatisfied	Moderately Dissatisfied	Not Sure	Moderately Satisfied	Very Satisfied	Extremely Satisfied
1. The physical work conditions	1	2	3	4	5	6	7
2. The freedom to choose your own method of working	1	2	3	4	5	6	7
3. Your fellow workers	1	2	3	4	5	6	7
4. The recognition you get for good work	1	2	3	4	5	6	7
5. Your immediate supervisor	1	2	3	4	5	6	7
6. The amount of responsibility you are given	1	2	3	4	5	6	7
7. Your rate of pay	1	2	3	4	5	6	7
8. Your opportunity to use your abilities	1	2	3	4	5	6	7
9. Relations between supervisors and staff	1	2	3	4	5	6	7
10. Your chance of promotion	1	2	3	4	5	6	7
11. The way your school is managed	1	2	3	4	5	6	7
12. The attention paid to suggestions you make	1	2	3	4	5	6	7
13. Your hours of work	1	2	3	4	5	6	7
14. The amount of variety in your job	1	2	3	4	5	6	7
15. Your job security	1	2	3	4	5	6	7

Social Support among Staff

How true are the following for you:

1. = Not at all true
2. = Rarely true
3. = Partially true
4. = Usually true
5. = Mostly true
6. = Absolutely true

1. I have a good relationship with my supervisors
1 2 3 4 5 6

2. I am getting on well with my co-workers
1 2 3 4 5 6

3. There is a pleasant atmosphere at the workplace
1 2 3 4 5 6

4. There is a good group cohesion at the workplace
1 2 3 4 5 6

5. There are often conflicts and arguments at work
1 2 3 4 5 6

REFERENCES CITED

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Andrew, D. H., & Dulin, P. L. (2007). The relationship between self-reported health and mental health problems among older adults in new zealand: Experiential avoidance as a moderator. *Aging & Mental Health, 11*(5), 596-603.
- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27-45.
- Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., et al. (2008). Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. *Assessment, 15*, 329-342.
- Baron, R. M., & Kenny, D. A. (1986) The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bartoli, P.V. (2002). Burnout and job performance among education professionals and paraprofessionals. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 63*, 2049.
- Biglan, A., Brennan, P.A., Foster, S.L., Holder, H.D., Miller, T.L., Cunningham, P.B. et al. (2004). *Helping adolescents at risk: Prevention of multiple problem behaviors*. New York:Guilford.
- Biglan, A., Layton, G. L., Jones, L. B., Hankins, M., & Rusby, J. C. (2011). The value of workshops on psychological flexibility for early childhood special education staff. *Topics in Early Childhood Special Education*. Advance online publication. doi:10.1177/0271121411425191
- Billingsley, B. S., & Cross, L. H. (1992). Predictors of commitment, job satisfaction, and intent to stay in teaching: A comparison of general and special educators. *The Journal of Special Education, 25*, 453-471.
- Boe, E. E., Bobbitt, S. A., & Cook, L. H. (1997). Whither didst thou go? Reassignment, migration, and attrition of special and general education teachers from a national perspective. *Journal of Special Education, 30*, 371-389.
- Boe, E. E., Cook, L. H., & Sunderland, R. J. (2008). Teacher turnover: Examining exit attrition, teaching area transfer, and school migration. *Exceptional Children, 75*, 7-31.

- Boeshen, L. E., Koss, M. P., Figueredo, A. J., & Coan, J. A. (2001). Experiential avoidance and post-traumatic stress disorder: A cognitive mediational model of rape recovery. *Journal of Aggression, Maltreatment and Trauma, 4*, 211–245.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology, 88*, 1057-1067.
- Bond, F. W., & Flaxman, P. E. (2006) . The Ability of Psychological Flexibility and Job Control to Predict Learning, Job Performance, and Mental Health. *Journal of Organizational Behavior Management, 26*, 113-130.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. C., Guenole, N., Orcutt, H. K., Waltz, T. and Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological flexibility and acceptance. *Behavior Therapy, 42*, 676-688.
- Bond, F.W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology, 5*, 156-163.
- Bryk, A., & Driscoll, M. (1988). The high school as community: Contextual influences and consequences for students and teachers. Madison: University of Wisconsin, NCESS.
- Burke, R. , Greenglass, E. , & Schwarzer, R. (1996). Predicting teacher burnout over time: Effects of work stress, social support, and self-doubts on burnout and its consequences. *Anxiety Stress and Coping, 9(3)*, 261-275.
- Cannon, W. B. (1914). The emergency function of the adrenal medulla in pain and the major emotions. *American Journal of Physiology, 33*, 356–372.
- Cartwright, S. and Cooper, C. L. (1997) *Managing Workplace Stress*, London: Sage Publications.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: consider the brief COPE. *International Journal of Behavioral Medicine, 4(1)*, 92-100.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Chan, D.W. (1998). Stress, coping strategies, and psychological distress among secondary school teachers in Hong Kong. *American Educational Research Journal, 35(1)*, 145–163.

- Chung, M.C., Berger, Z., Jones, R., & Rudd, H. (2008). Posttraumatic stress and comorbidity following myocardial infarction among older patients: The role of coping. *Ageing and Mental Health, 12*, 124-133.
- Cohen, J. & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Corrigan, P. W., Holmes, E. P. & Luchins, D. (1995) Burnout and collegial support in state psychiatric hospital staff . *Journal of Clinical Psychology 51*, 703–710.
- Cribb, G., Moulds, M. L., & Carter, S. (2006). Rumination and Experiential Avoidance in Depression. *Behaviour Change, 23*(3), 165-176.
- Dalrymple, K. L., & Herbert, J. D. (2007). Acceptance and commitment therapy for generalized social anxiety disorder: A pilot study. *Behavior Modification, 31*, 543-568.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.
- Donaldson, E. & Bond, F.W. (2004) [8]. Psychological acceptance and emotional intelligence in relation to workplace well-being. *British Journal of Guidance and Counseling, 32*, 187-203.
- Doucet, S., Dennis, C.L., Letourneau, N., & Robertson-Blackmore, E. (2009). Differentiation and clinical implications of postpartum depression and postpartum psychosis. *Journal of Obstetric, Gynecologic and Neonatal Nursing, 38*, 269-279.
- Dougall, A.L., & Baum, A. (2001). Stress, health , and illness. In A. Baum, T.A. Revenson, & J.E. Singer (Eds.), *Handbook of Health Psychology* (pp. 321-337).
- Dworkin, A.G. (2001). Perspectives on teacher burnout and school reform. *International Education Journal, 2*(2), 69-78. Retrieved on May 15, 2010 from <http://www.flinders.edu.au/education/iej>.
- Dworkin, A.G., Haney, C.A., Dworkin, R.J., & Telschow, R.L. (1990). Stress and illness behaviour among urban public school teachers. *Educational Administration Quarterly, 26*, 60-72.
- Edwards, M.J., & Holden R.R. (2001). Coping, meaning in life, and suicidal manifestations: Examining gender differences. *Journal of Clinical Psychology, 57*(12), 1517–34.
- Eichinger, J. (2000). Job stress and satisfaction among special education teachers: Effects of gender and social role orientation. *International Journal of Disability, Development and Education, 47*(4), 397 - 412.

- Endler, N. S., & Parker, J. D. A. (1994). Assessment of multidimensional coping task, emotion and avoidance strategies. *Psychological Assessment*, 6, 50-60.
- Essex, M.J., Armstrong, J.M., Burk, L.R., Goldsmith, H.H., & Boyce, W.T. (2011) Biological sensitivity to context moderates the effects of the early teacher–child relationship on the development of mental health by adolescence. *Development and Psychopathology*, 23, 149-161.
- Evans, P. (2003). *The relationship between management style and teacher stress*. Nottingham, UK: National College for School Leadership.
- Faragher, E.B., Cass, M., & Cooper, C.L. (2005). The relationship between job satisfaction and health: a meta-analysis. *Occupational and Environmental Medicine*, 62(2), 105-112.
- Feldner, M. T., Zvolensky, M. J., Eifert, G. H., & Spira, A. P. (2003). Emotional avoidance: an experimental test of individual differences and response suppression using biological challenge. *Behaviour Research and Therapy*, 41(4), 403-411.
- Ferguson, K., Frost, L., & Hall, D. (2012). Predicting teacher anxiety, depression, and job satisfaction. *Journal of Teaching and Learning*, 8(1), 27 – 42.
- Fimian, M.J., Zacherman, J., & McHardy, R.J. (1985). Substance abuse and teacher stress. *Journal of Drug Education*, 15(2), 139-155.
- Fledderus, M., Bohlmeijer, E. T., Smit, F., & Westerhof, G. B. (2010). Mental Health Promotion as a New Goal in Public Mental Health Care: A Randomized Controlled Trial of an Intervention Enhancing Psychological Flexibility. *American Journal of Public Health*, 100(12), 2372-2378.
- Folkman, S., & Moskowitz, J. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, 55(1), 745-774.
- Fried, Y., Ben-David, H., Tiegs, R. , Avital, N. , & Yeverechyahu, U. (1998). The interactive effect of role conflict and role ambiguity on job performance. *Journal of Occupational & Organizational Psychology*, 71(1), 19-27.
- Fried, Y., Shirom, A., Gilboa, S., & Cooper, C. (2008). The mediating effects of job satisfaction and propensity to leave on the stress-performance relationship: Combining Meta-analysis and SEM. *International Journal of Stress Management*, 15, 305-328.
- Gerber, E.B., Whitebook, M., & Weinstein, R.S. (2007). At the heart of child care: Predictors of teacher sensitivity in center-based child care. *Early Childhood Research Quarterly*, 22, 327-346.

- Gibson, S. & Dembo, M.H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569-582.
- Gifford, E. V., Kohlenberg, B. S., Hayes, S. C., Antonuccio, D. O., Piasecki, M. M., Rasmussen-Hall, M. L., & Palm, K. M. (2004). Applying a functional acceptance based model to smoking cessation: An initial trial of Acceptance and *Commitment Therapy*. *Behavior Therapy*, 35, 689-705.
- Gold, S.D., Dickstein, B.D., Marx, B.P. & Lexington, J.M. (2009). Psychological outcomes among lesbian sexual assault survivors: An examination of the roles of internalized homophobia and experiential avoidance. *Psychology of Women Quarterly*, 33, 54–66.
- Goldberg, D.P., & Hillier, V.F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.
- Golembiewski, R. T. and Munzenrider, R. F. (1988). *Phases of Burnout: Development in Concepts and Applications*, Praeger, New York.
- Gottfredson, D. C., Gottfredson, G. D., & Skroban, S. (1996). A multi-model school-based prevention demonstration. *Journal of Adolescent Research*, 11, 97-115.
- Gratz, K. L., & Gunderson, J. G. (2006). Preliminary data on an acceptance-based emotion regulation group intervention for deliberate self-harm among women with Borderline Personality Disorder. *Behavior Therapy*, 37(1), 25-35.
- Gratz, K. L., Tull, M. T., & Gunderson, J. G. (2008). Preliminary data on the relationship between anxiety sensitivity and borderline personality disorder: The role of experiential avoidance. *Journal of Psychiatric Research* 42, 550-559.
- Greene, R. , Abidin, R. , & Kmetz, C. (1997). The index of teaching stress: A measure of student-teacher compatibility. *Journal of School Psychology*, 35(3), 239-259.
- Greenglass, E., Burke, R. J. & Konarski, R. (1997). The impact of social support on the development of burnout in teachers: examination of a model. *Work and Stress*, 11(3), 267-278.
- Gregg, J. A., Callaghan, G. M., Hayes, S. C., & Glenn-Lawson, J. L. (2007). Improving diabetes self-management through acceptance, mindfulness, and values: a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 75, 336–343.
- Griffith, J., Steptoe, A., & Cropley, M. (1999). An investigation of coping strategies associated with job stress in teachers. *British Journal of Educational Psychology*, 69, 517-531.

- Gurung, R. A. R. (2006). *Health psychology: A cultural approach*. San Francisco: Wadsworth.
- Haaga, D. A. F., Thorndike, F. P., Friedman-Wheeler, D. G., Pearlman, M. Y., & Wernicke, R. A. (2004). Cognitive coping skills and depression vulnerability among cigarette smokers. *Addictive Behaviors, 29*, 1109-1122.
- Hakanen, J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*, 495–513.
- Hayes, S. C. (1994). Content, context, and the types of psychological acceptance. In S. C. Hayes, N. S. Jacobson, V. M. Follette, & M. J. Dougher (Eds.), *Acceptance and change: Content and context in psychotherapy* (pp. 13-32). Reno, NV: Context Press.
- Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., Masuda, A., Pistorello, J., Rye, A. K., Berry, K. & Niccolls, R. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy, 35*, 821-835.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999b). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York, NY, US: Guilford.
- Hayes, S. C., Wilson, K. W., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*(6), 1152-1168.
- Hayes, S.C., Luoma, J.B., Bond, F.W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*, 1-25.
- Hayes, S.C., Masuda, A., Bissett, R.T., Luoma, J., & Guerrero, L.F. (2004). DBT, FAP, and ACT: How empirically oriented are the new behavior therapy technologies? *Behavior Therapy, 35*, 35-54.
- Hinds, E., Cody, C., Kraft, A., Biglan, A., Jones, L. B., & Hankins, F. M. (in press). Using Acceptance and Commitment Therapy to improve the wellbeing of teachers. In J. Twyman & R. Wing (Eds.), *Evidence-based education*. Oakland, CA: Association for Behavior Analysis International and Wing Institute.
- Howe-Martin, L.S. (2008). Adolescent self-mutilating behaviors: experiential avoidance couples with imitation? (Unpublished doctoral dissertation). University of North Texas, Denton, Texas.

- IBM SPSS Inc. (2010). *PASW STATISTICS 18.0 Command Syntax Reference*. SPSS Inc., Chicago.
- Israel, B.A., Schulz, A.J., Parker, E.A. & Becker, A.B. (1998). Review of community-based research: assessing partnership approaches to improve public health. *Annual Review of Public Health, 19*, 173-202.
- Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology, 71*, 630–640.
- Jarvis, M. (2002). *Stress News*. Pamphlet.
- Jex, S.M., & Yankelevich, M. (2008). Work stress. In J. Barling & C.L. Cooper (Eds.), *The Sage Handbook of Organizational Behavior Vol. 1* (pp. 498-518). Los Angeles: Sage.
- Johnson, J. (1999). Self-regulation theory and coping with physical illness. *Research in Nursing & Health, 22*(6), 435-448.
- Jurado, D., Gurpegui, M., Moreno, O., & de Dios, L.J. (1998). School setting and teaching experience as risk factors for depressive symptoms in teachers. *European Psychiatry, 13*, 78-82.
- Kahn, R. L., & Byosiere, P. (1992). Stress in organizations, In: Dunnette, MD and Hough, LM (Eds) *Handbook of Industrial and Organizational Psychology, Vol. 3*. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational* (2nd ed., Vol. 3, pp. 571-650). Palo Alto, CA: Consulting Psychologists Press.
- Karekla, M. & Panayiotou, G. (2011). Coping and experiential avoidance: Unique or overlapping constructs? *Journal of Behavior Therapy and Experimental Psychiatry, 42*, 163-170.
- Kashdan, T. B., & Breen, W. E. (2007). Materialism and diminished well-being: Experiential avoidance as a mediating mechanism. *Journal of Social and Clinical Psychology, 26*, 521-539.
- Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy, 9*, 1301-1320.
- Kashdan, T.B., Kane, J.Q., & Kecmanovic, J. (2011). Posttraumatic distress and the presence of posttraumatic growth and meaning in life: Experiential avoidance as a moderator. *Personality and Individual Differences, 50*, 84-89.

- Kendall, E., Murphy, P., O'Neil, V., & Bursnall, S. (2000). *Occupational stress: Factors that contribute to its occurrence and effective management*. Canberra, Australia: Centre for Human Services, Griffith University.
- Kneebone, I. & Martin, P. (2003). Coping and caregivers of people with dementia. *British Journal of Health Psychology*, 8, 1–17.
- Kokkinos, C. M., & Davazoglou, A. M. (2009). Special education teachers under stress: Evidence from a Greek national study. *Educational Psychology*, 29, 407–424.
- Kokkinos, C. M., Panayiotou, G., & Davazoglou, A. M. (2005). Correlates of teacher appraisals of student behaviors. *Psychology in the Schools*, 42, 79–89
- Kroenke, K., Spitzer, R.L., Williams, J.B.W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Medicine*, 16, 606-613
- Kyriacou, C. (1987). Teacher stress and burnout: An international review. *Educational Research*, 29(2), 146-152.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, 53, 27–35.
- Kyriacou, C., & Sutcliffe, J. (1978a). A model of teacher stress. *Educational Studies*, 4, 1–6.
- Kyriacou, C., & Sutcliffe, J. (1978b). Teacher stress: Prevalence, sources, and symptoms. *British Journal of Educational Psychology*, 48, 159–167.
- Lazarus, R. S. (1966). *Psychological Stress and the Coping Process*. New York: McGraw-Hill.
- Lazarus, R.S. and Folkman, S, (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Leiter, M. P., & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. In P. L. Perrewe & D. C. Ganster (Eds.), *Research in Occupational Stress and Well-Being* (Vol. 3, 91-134). Oxford: Elsevier.
- Lillis J, Hayes SC, Bunting K, & Masuda A (2009). Teaching acceptance and mindfulness to improve the lives of the obese: a preliminary test of a theoretical model. *Annals of Behavioral Medicine*, 37, 58-69.

- Losa Iglesias, M., Becerro de Bengoa Vallejo, R., & Salvadores Fuentes, P. (2010). The relationship between experiential avoidance and burnout syndrome in critical care nurses: a cross-sectional questionnaire survey. *International Journal of Nursing Studies*, 47(1), 30-37.
- Lowe, R., Norman, P. & Bennett, P. (2000). Coping, emotion and perceived health following myocardial infarction: Concurrent and predictive associations. *British Journal of Health Psychology*, 5, 337-350.
- Lundgren, T. A., Dahl, J., & Hayes, S. C. (2008). Evaluation of mediators of change in the treatment of epilepsy with acceptance and commitment therapy. *Journal of Behavioral Medicine*, 31, 225–235.
- Luoma, J. B., Drake, C., Hayes, S. C., & Kohlenberg, B. (2011). Substance Abuse and Psychological Flexibility: The Development of a New Measure. *Addiction Research and Theory*, 19(1), 3-13.
- MacKinnon, D.P., Lockwood, C.M., Hoffman, J.M., West, S.G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- Mahan, P. L., Mahan, M. P., Park, N. J., Shelton, C., Brown, K. C., & Weaver, M. T. (2010). Work environment stressors, social support, anxiety, and depression among secondary school teachers. *AAOHN Journal*, 58, 197–205.
- Makinen, R., & Kinnunen, U. (1986). Teacher stress over a school year. *Scandinavian Journal of Educational Research*, 30, 55–70.
- Marx, B. P., & Sloan, D. M. (2002). The role of emotion in the psychological functioning of adult survivors of childhood sexual abuse. *Behavior Therapy*, 33, 563-577.
- Maslach, C. & Jackson, S.E. (1984). Burnout in organizational settings. *Applied Social Psychology Annual*, 5, 133-153.
- Maslach, C. (1998). Chronic outcomes: Burnout. In J. M. Stellman (Ed.), *Encyclopedia of Occupational Health and Safety*, 2, 34-64. Fourth edition. Geneva: International Labour Office.
- Maslach, C. (2001). What have we learned about burnout and health? *Psychology and Health*, 16 (5), 607-611.
- Maslach, C. and Schaufeli, W.B. (1993), “Historical and conceptual development of burnout”, in Schaufeli, W.B., Maslach, C. and Marek, T. (Eds), *Professional Burnout: Recent Developments in Theory and Research*, Taylor & Francis, Washington, DC, pple. 1-16.

- Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach Burnout Inventory. In C. P. Zalaquett & R. J. Wood (Eds.), *Evaluating stress: A book of resources* (pp. 191-218). Lanhan, MD: The Scarecrow Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). 'Job burnout.' *Annual Review of Psychology*, *52*, 397-422.
- McCracken, L. M., Vowles, K. E., & Eccleston, C. (2005). Acceptance-based treatment for persons with complex, long-standing chronic pain: a preliminary analysis of treatment outcome in comparison to a waiting phase. *Behaviour Research and Therapy*, *43*, 1335–1346.
- McGrath, A., Houghton, D. and Reid, N. (1989) Occupational stress, and teachers in Northern Ireland. *Work and Stress*, *3*, 359-368.
- Merwin, R. M., Rosenthal, M. Z., & Coffey, K. A. (2009). Experiential avoidance mediates the relationship between sexual victimization and psychological symptoms: Replicating findings with an ethnically diverse sample. *Cognitive Therapy and Research*, *33*, 537-542.
- MetLife (2001). *The MetLife Survey of the American Teacher: Teachers, Parents and the Economy*. Retrieved from https://www.metlife.com/about/corporate-profile/citizenship/metlife-foundation/metlife-survey-of-the-american-teacher.html?WT.mc_id=vu1101
- Miller, M. D., Brownell, M. T., & Smith, S. W. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children*, *65*, 201–218.
- Montgomery, C. & Rupp, A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education / Revue Canadienne De L'éducation*, *28*(3), 458-486.
- Moos, R. (1984). Context and coping - toward a unifying conceptual-framework. *American Journal of Community Psychology*, *12*(1), 5-36.
- Moos, R. H. (1981). *Work Environment Scale manual*. Palo Alto, CA: Consulting Psychologists Press.
- Muthén, L. K. & Muthén, B. O. (2007). *Mplus Statistical Analysis with Latent Variables User's Guide*. (5th ed.). Los Angeles, CA: Muthén & Muthén.
- Nagai, M. , Tsuchiya, K. , Touloupoulou, T. , & Takei, N. (2007). Poor mental health associated with job dissatisfaction among school teachers in japan. *Journal of Occupational Health*, *49*(6), 515-522.

- National Center for Education Statistics (1997). Dropout rates in the United States: 1996. Retrieved on February 15, 2010 from: <http://nces.ed.gov/pubs98/dropout/index.html>.
- Osipow, S. H., & Spokane, A. (1987). *Occupational stress inventory: Manual research version*. Odessa, FL Psychological Assessment Resources.
- Ottenbreit, N. D. & Dobson, K. S. (2004) Avoidance and depression: the construction of the Cognitive–Behavioral Avoidance Scale. *Behaviour Research and Therapy*, 42, 292–313.
- Parkes, K. (1986). Coping in stressful episodes - the role of individual-differences, environmental-factors, and situational characteristics. *Journal of Personality and Social Psychology*, 51(6), 1277-1292.
- Peltzer, K. , Shisana, O. , Zuma, K. , Van Wyk, B. , & Zungu-Dirwayi, N. (2009). Job stress, job satisfaction and stress-related illnesses among south african educators. *Stress & Health: Journal of the International Society for the Investigation of Stress*, 25(3), 247-257.
- Pithers, R. T., & Soden, R. (1998). Scottish and Australian teacher stress and strain: A comparative study. *British Journal of Educational Psychology*, 68, 269-279.
- Platt, J. M., & Olson, J. (1990). Why teachers are leaving special education: Implications for preservice and inservice educators. *Teacher Education and Special Education*, 13(3-4), 192-196.
- Polusny, M. A., Rosenthal, M. Z., Aban, I., & Follette, V. M. (2004). Experiential avoidance as a mediator of the effects of adolescent sexual victimization on negative adult outcomes. *Violence and Victims*, 19, 109-120.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891.
- Rassin, E. , Merckelbach, H. , & Muris, P. (2000). Paradoxical and less paradoxical effects of thought suppression: A critical review. *Clinical Psychology Review*, 20(8), 973-995.
- Reddy, M. K., Pickett, S. M., & Orcutt, H. K. (2006). Experiential avoidance as a mediator in the relationship between childhood psychological abuse and current mental health symptoms in college students. *Journal of Emotional Abuse*, 6(1), 67-85.

- Roemer, L., Orsillo, S. M., & Salters-Pedneault, K. (2008). Efficacy of an acceptance-based behavior therapy for generalized anxiety disorder: Evaluation in a randomized controlled trial. *Journal of Consulting and Clinical Psychology, 76*(6), 1083-1089.
- Rudow, B. (1999). Stress and burnout in the teaching profession: European studies, issues, and research perspectives. In A. M. Huberman (Ed.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 38– 58). New York Cambridge University Press.
- Santanello, A. W., & Gardner, F. L. (2007). The role of experiential avoidance in the relationship between maladaptive perfectionism and worry. *Cognitive Therapy and Research, 31*(3), 319-332.
- Sauter, S. L. & Murphy, L.R. (1995). The changing face of work and stress. In S.L. Sauter & Murphy, L. R. (Eds.) *Organizational Risk Factors for Job Stress*, 1- 6, Washington D.C.: American Psychological Association.
- Schafer, J. L. & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7* (2), 147-177.
- Schaufeli, W. B. & Greenglass, E. R. (2001). Introduction on a special issue on burnout and health. *Psychology & Health, 16*, 501-510.
- Schonfeld, I. S. (1992). School conditions induce teacher depression. *Teaching & Teacher Education, 8*, 151–158.
- Schonfeld, I.S. (1990). Psychological distress in a sample of teachers. *Journal of Psychology, 124*, 321.
- Selye, H. 1946. The general adaptation syndrome and the diseases of adaptation. *Journal of Clinical Endocrinology, 6*, 117–230.
- Shawyer, F., Ratcliff, K., Mackinnon, A., Farhall, J., Hayes, S.C., & Copolov, D. (2007). The voices acceptance and action scale (VAAS): Pilot data. *Journal of Clinical Psychology, 63*, 593–606.
- Singh, K., & Billingsley, B. (1996). Intent to stay in teaching: Teachers of students with emotional disorders versus other special educators. *Remedial and Special Education, 17*, 37–47.
- Skaalvik, E. M., & Skaalvik, S. (2009). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*, 1059–1069.

- Snow, D., Swan, S., Raghavan, C., Connell, C., & Klein, I. (2003). The relationship of work stressors, coping and social support to psychological symptoms among female secretarial employees. *Work & Stress, 17*(3), 241-263.
- Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: some parallels between counterproductive work behavior (CWB) and organizational citizenship behavior (OCB). *Human Resources Management Review, 12*, 269–292.
- Spira, A. P., Beaudreau, S. A., Jimenez, D., Kierod, K., Cusing, M. M., Gray, H. L., & Gallagher-Thompson, D. (2007). Experiential avoidance, acceptance, and depression in dementia family caregivers. *Clinical Gerontologist, 30*(4), 55-64.
- Spitzer, R.L., Kroenke, K., Williams, J.B.W. (1999). Patient health questionnaire study group. Validity and utility of a self-report version of PRIME-MD: The PHQ primary care study group. *Journal of the American Medical Association, 282*, 1737-1744.
- Stempien, L. , & Loeb, R. (2002). Differences in job satisfaction between general education and special education teachers. *Remedial & Special Education, 23*(5), 258-267.
- Stewart, S. H., Zvolensky, M. J., & Eifert, G. H. (2002). The relations of anxiety sensitivity, experiential avoidance, and alexithymic coping to young adults' motivations for drinking. *Behavior Modification, 26*, 274–296.
- Sutton, G.W. & Huberty, T.J. (1984). An evaluation of teacher stress and job satisfaction. *Education, 105*, 189-192.
- Taris, T. W., Le Blanc, P. M., Schaufeli, W. B., & Schreurs, P. J. G. (2005). Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress, 19*, 241-258.
- Thissen, D., Steinberg, L., & Kuang, D. (2002). Quick and easy implementation of the Benjamini-Hochberg procedure for controlling the false discovery rate in multiple comparisons. *Journal of Educational and Behavioral Statistics, 27*, 77-83.
- Tull, M. T., & Gratz, K. L. (2008). Further examination of the relationship between anxiety sensitivity and depression: The mediating role of experiential avoidance and difficulties engaging in goal directed behavior when distressed. *Journal of Anxiety Disorders, 22*(2), 199-210.
- Tull, M. T., & Roemer, L. (2007). Emotion regulation difficulties associated with the experience of uncued panic attacks: Evidence of experiential avoidance, emotional nonacceptance, and decreased emotional clarity. *Behavior Therapy, 38*(4), 378-391.

- Tull, M. T., & Roemer, L. (2007). Emotion regulation difficulties associated with the experience of uncued panic attacks: Evidence of experiential avoidance, emotional nonacceptance, and decreased emotional clarity. *Behavior Therapy, 38*(4), 378-391.
- Tull, M. T., Gratz, K. L., Salters, K., & Roemer, L. (2004). The role of experiential avoidance in posttraumatic stress symptoms and symptoms of depression, anxiety, and somatization. *Journal of Nervous and Mental Disease, 192*, 754-761.
- Twohig, M. P., Hayes, S. C., & Masuda, A. (2006). A preliminary investigation of acceptance and commitment therapy as a treatment for chronic skin picking. *Behaviour Research and Therapy, 44*, 1513-1522.
- Uden, A.L., Orth-Gomer, K., Elofsson, S. (1991). Cardiovascular effects of social support in the work place: twenty-four hour ECG monitoring of men and women. *Psychosomatic Medicine 53* (1), 50–60.
- Van Petegem, K., Creemers, Y. Rosseel, & Aelterman, A. (2005). Relationships between teacher characteristics, interpersonal teacher behaviour and teacher wellbeing, *Journal of Classroom Interaction 40*, 34–43.
- Warr, P. B., Cook, J., & Wall, T. D. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52*, 129-148.
- Wegner, D.M., & Erber, R. (1992). The hyperaccessibility of suppressed thoughts. *Journal of Personality and Social Psychology, 63*, 903-912.
- Werner, E. E. (1990). Protective factors and individual resilience. In S. J. Meisels and J. P. Shonkoff (Eds.), *Handbook of Early Childhood Intervention, 97-116*. Cambridge: Cambridge University Press.
- Westin, V., Hayes, S. C., & Andersson, G. (2008). Is it the sound or your relationship to it? The role of acceptance in predicting tinnitus impact. *Behaviour Research and Therapy, 46*, 1259–1265.
- Wicksell R.K., Renöfält J, Olsson G.L., Bond F.W., & Melin L. (2008). Avoidance and cognitive fusion-Central components in pain related disability? Development and preliminary validation of the Psychological Inflexibility in Pain Scale (PIPS). *European Journal of Pain, 12*, 491-500.
- Wisniewski, L., & Gargiulo, R. M. (1997). Occupational stress and burnout among special educators: A review of the literature. *The Journal of Special Education, 31*, 325-346.

- Wodka, E. L., & Barakat, L. P. (2007). An exploratory study of the relationship of family support and coping with adjustment: Implications for college students with a chronic illness. *Journal of Adolescence*, 30 (3), 365-376.
- Yoon, J.S. (2008). Teacher characteristics as predictors of teacher-student relationships: Stress, negative affect, and self-efficacy. *Social Behavior and Personality*, 30, 485-494.
- Zuckerman, M., & Gagne, M. (2003). The COPE revised: Proposing a 5-factor model of coping strategies. *Journal of Research in Personality*, 37, 169-204.