Relationship among Self-Efficacy, Social Support, Job Satisfaction, and Teacher-Related

Burnout

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Abstract

Human-service professions are at high-risk for burnout including the teaching profession. Work-related burnout is a gradual process widespread among many professionals and is in response to stressful events. Some of the current research has been focused on teachers with work-related burnout. An area of limited research has been the potential buffers that may be a preventive to burnout with some research conducted on specific buffers. However, the relationship, if any, of specific variables including social supports, job satisfaction, and self-efficacy to work-related burnout among elementary schoolteachers and their relative importance and contributions as buffers remains unknown. This quantitative study utilized a correlational design so that the direction and strength of the relationship among the variables could be assessed. The participants of the study included a convenience sample of 171 elementary schoolteachers who are members of the Louisiana Teacher's Association. Multiple regression analyses was used to analyze data collected from the Maslach Burnout Inventory – Educator's Survey, Duke Support Index – 10, the Teaching Sense of Efficacy Scale, and the Teacher's Satisfaction Scale. Results of the study indicate a relationship exists between job satisfaction and all three dimensions of burnout and between self-efficacy and personal accomplishment. Lastly, the combination of social support, self-efficacy, and job satisfaction significantly predicted all three dimensions of burnout and acted as buffers for some participants. Recommendations for future studies include generalizing of the study to other levels of teaching and geographical areas and considering additional control variables in addition to those included in this study. A final recommendation would be to test other sets of potential buffers from work-related burnout.

Dedication

This dissertation is dedicated to the late Mrs. Jackie Carole Miller Watts, my mother.   You were always my constant cheerleader and supporter. Your belief in me is what gave me the ability to believe in myself. Due to your example of completing difficult tasks and giving attention to the smallest of details, I was prepared to successfully complete my doctoral degree.

It was your encouragement that prompted me to get started. I know that you are proud that I have finally finished.

Acknowledgements

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In addition, I want to thank my chair, Dr. Andrew Carpenter, for his wisdom and encouragement in moving me through this process, as well as my committee members Dr. Heather Frederick and Dr. Melanie Shaw. Special thanks also go to the Louisiana Association of Educators as well as the teachers who participated in my research.

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Chapter 1: Introduction

Burnout is defined as a syndrome consisting of three components: (a) emotional exhaustion, (b) lack of personal accomplishment, and (c) depersonalization (Kokkinos, 2007). Professional burnout has been acknowledged as widespread among many professions and has been the topic of both behavioral and health research since the 1970s (Swift & Zimmerman, 2010). Human-service professionals, including teachers, are at the highest risk of all professional groups for burnout (Grayson & Alvarez, 2008; Yang, Ge, Hu, Chi, & Wang, 2009).

Emotional problems that accompany teacher burnout include frustration, desperation, insensitivity, boredom, irritability, aggressiveness, and feelings of helplessness (Baran et al., 2010; Pas, Bradshaw, Hershfeldt, & Leaf, 2010). Because of these problems, each year many teachers retire, change careers, or take sabbaticals (Brouwers, Tomic, & Boluijt, 2011; Yang et al., 2009). Fewer than 10% of teachers remain until retirement (Chang, 2009). In fact, one quarter of beginning teachers leave before their 3rd year, and 50% leave within 5 years of teaching (Chang, 2009; Pas, Bradshaw, & Hershfeldt, 2012). Many teachers remaining in the field experience burnout and develop an inability to protect themselves against threats to their self-esteem and well-being (Vazi et al., 2011; Yang et al., 2009).

According to the conservation of resources (COR) theory, there is a relationship between an individual's resource pool and work-related burnout (Hobfoll & Shirom, 1993). Individuals who have a strong resource pool are likely to experience fewer stressors and burnout symptoms. When an individual's resource pool is threatened, lost, or not obtained or replenished, burnout can occur (Hobfoll, 1998).

The majority of the studies related to teacher burnout are focused on teachers already suffering from burnout (Avtgis & Rancer, 2008; Baran et al., 2010; Bauer et al., 2006). Many researchers have focused their studies on strategies to cope with burnout (Bresó, Schaufeli, & Salanova, 2010). For example, researchers explored educating teachers in time management (Peeters & Rutte, 2005), changing classroom management styles (Brouwers & Tomic, 2000), and working on school climate (Grayson & Alvarez, 2008) as means of coping with burnout. However, the exploration of a combination of potential buffers that may act as preventives to teacher burnout is an area of limited research. Most of the available research has focused on a single variable as a potential buffer. Teacher efficacy was studied as a burnout buffer in secondary teachers in Spain (Betoret, 2006), elementary and middle schoolteachers in Norway (Skaalvik & Skaalvik, 2011), and secondary schools in Botswana (Adedoyin, 2010). Job satisfaction has been studied as a buffer to burnout among teachers of agricultural education (Chenevey, Ewing, & Whittington, 2008), teachers in China (Ho & Au, 2006), and teachers in Italy (Moè, Pazzaglia, & Ronconi, 2010). Research has been conducted on social support as a buffer to burnout among special education teachers in Jordan (Bataineh, 2009) and schoolteachers in China (Zhongying, 2008). One study involved teacher efficacy and job satisfaction in relationship to burnout in the Yukon and Canada (Klassen & Chiu, 2011). To the best of my knowledge, there has been little to no research in terms of the combination of social support, self-efficacy, and job satisfaction in relation to burnout.

The problem statement reflected the specific issue that the relationship among certain variables and their relative importance and contributions as buffers to burnout among teachers remains unknown, which obviates the goal of understanding what buffers

prevent schoolteachers from burning out. This study aimed to resolve within the conservation of resources theoretical framework the relationship of job satisfaction, teacher self-efficacy, social supports, and work related burnout. The research questions are also included with the corresponding hypotheses. The nature and significance of the study are discussed, followed by key terms that are used throughout the study.

The following chapter includes a background discussion on burnout within the context of elementary schoolteachers that are currently teaching. The problem statement reflected the specific issue that the relationship among certain variables and their relative importance and contributions as buffers to burnout among teachers remains unknown, which obviates the goal of understanding what buffers prevent elementary schoolteachers from burning out. This study aimed to resolve within the conservation of resources theoretical framework the relationship of job satisfaction, teacher self-efficacy, social supports, and work related burnout. The research questions are also included with the corresponding hypotheses. The nature and significance of the study are discussed, followed by key terms that are used throughout the study.

Background

In studies dating back to the 1970s, researchers have attempted to understand the many facets of teacher burnout (Freudenberger, 1974; Maslach, 1976; Vandenberghe & Huberman, 1999). Work-related burnout is a gradual process widespread among many professionals and occurs in response to prolonged exposure to stress (Fernet, Guay, Senécal, & Austin, 2012). Because of work-related burnout, teachers leave their chosen profession at a higher rate than do other professionals (Fisher, 2011). Stressors related to teacher burnout have increased over time through added accountability, legislative

mandates such as No Child Left Behind (NCLB) of 2001 (Ransford et al., 2009), increased behavioral challenges in the classroom, and the roles of teachers in student outcomes (Pas et al., 2012). Most teachers experiencing stress are also likely to have lost resources or to perceive that the demands of the job exceed the resources available (González-Morales et al., 2010).

Much of the available research on teacher burnout has focused heavily on such topics as factors linked to teacher burnout (Avtgis & Rancer, 2008; Bauer et al., 2006; Chenevey et al., 2008), measurement of burnout (Aluja, Blanch, & Garcia, 2005; Baran et al., 2010; Montero-Marin & Carcia-Campayo, 2010), and interventions and strategies for teacher burnout (Ben-Ari, Krole, & Har-even, 2003; Doyle, et al., 2007). Chenevey et al. (2008) suggested further research on job satisfaction and burnout in different states or on a national scale, and Skaalvik and Skaalvik (2011) concluded that the connection between teacher efficacy and burnout warranted future studies to include other, potentially mediating, variables. Guo, Justice, Sawyer, and Tompkins (2011) also recommended that their study of self-efficacy of preschool teachers be conducted with other populations of teachers.

Statement of the Problem

Schoolteachers at all grade levels are suffering from work-related burnout (Baran et al., 2010; Fernet et al., 2012; Retelsdorf, Butler, Streblow, & Schiefele, 2009). Some of the factors related to work-related burnout in the teaching profession include time-related pressures, student misbehavior, increasing class sizes, poor working conditions, inadequate salaries, stressful relationships with supervisors, lack of administrative support, classroom management, and role conflicts (Brackett, Palomera, Mojsa-Kaja,

Reyes, & Salovey, 2010; Fisher, 2010). Work-related burnout can produce many

problems, including mental and physical fatigue, flu and cold symptoms, migraines,

depression, and substance abuse (Oh & Lee, 2009).

Despite the existence of work-related burnout, some schoolteachers have been

able to buffer themselves from it (Kanwar, Singh, & Kodwani, 2009; Klassen, 2011;

Osamah, 2009). One area of research involves understanding the factors that permit

some teachers to remain in the teaching profession without burnout. Preliminary studies

confirmed the limited individual buffering effects of social support (Bataineh, 2009;

Lambert, Altheimer, & Hogan, 2010; Polman, Borkoles, & Nicholls, 2010), self-efficacy

(Adedoyin, 2010; Betoret, 2006; Skaalvik & Skaalvik, 2010), and job satisfaction

(Chenevey et al., 2008; Klassen & Chiu, 2011; Moè et al., 2010) on work-related burnout

among various service professionals. Job satisfaction, stress, burnout, and social support

have all been associated with the age of the teacher (Grayson & Alvarez, 2008) and years

of teaching experience (Fisher, 2011; Gavish & Friedman, 2010). The specific problem

is that the relationship, if any, among a combination of variables, viewed as resources in

the COR theory, and their relative importance and contributions as buffers to burnout

among teachers remains unknown. Because of this problem, an exploration of the

combination of social supports, teacher self-efficacy, and job satisfaction was undertaken.

Purpose of the Study

The purpose of this quantitative, correlational study was to examine the extent to

which social support, self-efficacy, and job satisfaction predict work-related burnout

among elementary schoolteachers after correcting for the age and the experience level of

the teacher. The predictor variables were social support, job satisfaction, and teacher

self-efficacy. The outcome variables were the dimensions of teacher burnout including emotional exhaustion, depersonalization, and lack of personal accomplishment. Teacher age and experience level were the control variables. In the context of the Conservation of Resources (COR) theory, an exploration was conducted as to whether a stronger resource pool, including all three predictor variables, predicts fewer burnout symptoms among elementary schoolteachers. Elementary school teachers who are currently teaching in grades kindergarten through sixth grade and belong to the Louisiana Association of Educators received e-mail invitations to participate in the study. Social support was measured with the Duke Social Support Index (DSSI-10; Wardian et al., 2013; see Appendix A). Teacher self-efficacy was measured with the Teacher Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2007; see Appendix B). Job satisfaction was measured with the Teaching Satisfaction Scale (TSS; Ho & Au, 2006; see Appendix C). Teacher burnout was be measured with the Maslach Burnout Inventory – Educator's Survey (MBI-ES; Maslach, Jackson, & Leiter, 1996; see Appendix D). Demographic data was also collected (see Appendix E). The survey was placed on the website of the Louisiana Association of Educators, and data was collected online.

Theoretical Framework

The theoretical framework for the study was the COR theory. The basic tenet of COR theory is that individuals endeavor to keep the resources that they have, protect their resources, and strive to increase their resources (Hobfoll, 1993). Stress can occur when resources are threatened, are lost, or do not increase (Hobfoll, 1998). Resources are defined as objects or qualities that an individual values, together with the means for acquiring these objects or qualities.

Resources are placed into several categories, including object, condition, personal resources, and energetic resources (Llorens et al., 2007). Object resources are tangible and are of value because of their physical properties and the extent that they meet survival needs (Hobfoll & Lilly, 1993). Examples are necessities such as food, shelter, clothing, and transportation. Condition resources are resources one seeks, such as tenure, marriage, job-advancement, and seniority. Personal resources may include self-efficacy, self-esteem, optimism, love, affection, and sense of mastery. Energy resources are those resources that help an individual gain additional resources, such as knowledge, extra time, money, and social competence (Hobfoll, 2001). There are additional ways to categorize resources, and resources vary among individuals (Hobfoll, 1988). Seventy-four different resources have been identified by Hobfoll (2001) and are included in Figure 1.

Figure 1 - *COR Resources*

Personal transportation (car, truck, etc.)	Adequate food	Adequate financial credit
Feeling that I am successful	Larger home than I need*	Feeling independent
Time for adequate sleep	Sense of humor	Companionship
Good marriage	Stable employment	Financial assets (stocks, property, etc.)
Adequate clothing	Intimacy with spouse or partner	Knowing where I am going with my life
Feeling valuable to others	Adequate home furnishings	Affection from others
Family stability	Feeling that I have control over my life	Financial stability
Free time	Role as a leader	Feeling that my life has meaning/purpose
More clothing than I need*	Ability to communicate well	Positive feeling about myself
Sense of pride in myself	Providing children's essentials	People I can learn from
Intimacy with one or more family members	Feeling that my life is peaceful	Money for transportation
Time for work	Acknowledgment of my accomplishments	Help with tasks at work
Feelings that I am accomplishing my goals	Ability to organise tasks	Medical insurance
Good relationship with my children	Extras for children	Involvement with church, synagogue, etc.
Time with loved ones	Sense of commitment	Retirement security (financial)
Necessary tools for work	Intimacy with at least one friend	Help with tasks at home
Hope	Money for extras	Loyalty of friends
Children's health	Self-discipline	Money for advancement or self-improvement (education, starting a business)
Stamina/endurance	Understanding from my employer/boss	Help with child care
Necessary home appliances	Savings or emergency money	Involvement in organisations with others who have similar interests
Feeling that my future success depends on me	Motivation to get things done	Financial help if needed
Positively challenging routine	Spouse/partner's health	Health of family/close friends
Personal health	Support from co-workers	
Housing that suits my needs	Adequate income	
Sense of optimism	Feeling that I know who I am	
Status/seniority at work	Advancement in education or job training	

Figure 1. COR Resources. Adapted from "The Influence of Culture, Community and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory," by S.E. Hobfoll, 2001, *Journal of Applied Psychology, 50*, 337-396.

The COR theory has three principles and four corollaries. Principle 1 states, "resource loss is more powerful and more potent than resource gain", principle 2 states "in order to gain resources or prevent their loss, one must invest other resources" and lastly, principle 3 states "… because people have fewer resources as they lose resources, they are decreasingly capable of withstanding further threats to resource loss" (Hobfoll & Lilly, 1993).

There are also subprinciples, also known as corollaries included in the COR theory. Corollary 1 states, "those with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain" (Hobfoll, 2001). The second corollary states that, "those who lack resources are not only more vulnerable to resources loss, but that initial loss begets future loss" (Hobfoll, 2001). Corollary 3 states, "those who possess resources are more capable of gain, and that initial resources gain begets further gain" (Hobfoll, 2001). The last corollary states "those who lack resources are likely to adopt a defensive posture to conserve their resources" (Hobfoll, 2001).

The COR theory has been used to understand human behavior in various settings, with an emphasis on different resources that a person has, has lost, or has attained. Persistent job stress has been found to result in work-related burnout because coping and energy resources have been diminished (Maslach et al., 2001). In this study, three highly valued resources were examined. The first is social support, which is an energy resource. The second is a person's self-efficacy, which is a personal resource. Finally, job satisfaction is a condition resource. As mentioned, stress can occur when there is a threat to one's resources, there is actually loss of resources, and/or there is a lack of gain of resources (Hobfoll, 1998). Burnout is considered through the COR theory as an end result of a lengthy process of resource loss (Hobfoll & Lilly, 1993).

Research involving the use of COR theory has been conducted in job-related settings with variables such as psychological well-being, burnout, level of job satisfaction and employee commitment, and social support (Harris, Harvey, & Kacmar, 2009; Lee & Ashforth, 1996; Rothmann, Mostert, & Strydom, 2006; van Emmerik, Bakker, & Euwema, 2008; Westman & Eden, 1997; Wright & Hobfoll, 2004). The COR theory was

also used to study the increased levels of self-efficacy brought about by acquiring

resources (Llorens et al., 2007). Other researchers (e.g., Grandey & Cropanzano, 1999;

Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010; Shamai, 2005) have relied on

COR theory to focus on issues related to work and family.

Several aspects of the COR theory have given rise to controversies. Hobfoll

(2001) claimed that resource loss could be understood as a product of appraisal processes.

Resource loss may be confounded by certain personality traits. Finally, researchers have

argued that COR theory does not predict the role of certain resources (Hobfoll, 2001).

Research Questions

The combination of resources that keep some teachers from burning out remains

unknown. The purpose of the study was to examine the extent to which social support,

self-efficacy, and job satisfaction predict work-related burnout among elementary

schoolteachers after correcting for the age and the experience level of the teacher. To

accomplish this purpose, the following research questions were addressed.

Q1. After accounting for the age and the experience level of the teacher, to what

extent does social support predict work-related burnout among elementary schoolteachers

in Louisiana?

Q2. After accounting for the age and the experience level of the teacher, to what

extent does self-efficacy predict work-related burnout among elementary schoolteachers

in Louisiana?

Q3. After accounting for the age and the experience level of the teacher, to what

extent does job satisfaction predict work-related burnout among elementary

schoolteachers in Louisiana?

Hypotheses

$H1_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

$H1_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, predicts work-related burnout work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

$H2_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

$H2_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, predicts work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

$H3_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, does not predict work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

$H3_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured

with the TSS, predicts work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

Nature of the Study

To study how a specific combination of resources predicts work-related burnout; a quantitative method was utilized to determine if a statistical relationship exists between the variables. The objective was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. Three research questions and three hypotheses were used in the correlational research.

To measure the level of social support that a teacher has, the DSSI-10 (Wardian et al., 2013) was used. Self-efficacy was measured with the TSES (Tschannen-Moran & Hoy, 2007) to gauge participants' belief in their abilities to organize and perform teacher-related tasks. The TSS (Ho & Au, 2006) was used to measure teacher satisfaction in the teaching position. Finally, the MBI-ES (Maslach et al., 1996) was used to measure the level of burnout experienced by the participants in three dimensions of burnout including emotional exhaustion, depersonalization, and lack of personal accomplishment. Age and the number of years of teaching experience was computed as covariates. To answer the research questions, a multiple linear regression analysis was used. Multiple linear regression was the tool of choice to determine the extent to which two or more variables predict an outcome variable (Fisher, 2011; Gay, Mills, & Airasian, 2009).

Significance of the Study

Although preliminary evidence indicated the limited individual buffering effects of teacher efficacy, job satisfaction, and social support on burnout among various service

professionals, the relationship of the combination of these variables to burnout and their relative importance as buffers to burnout among teachers remains unknown. The generalizability of previous studies has been limited (Klassen & Chiu, 2011). This study contributes to an understanding of the relationship of social support, self-efficacy, and job satisfaction of some elementary schoolteachers that do not burn out.

Definition of Key Terms

      Burnout. Burnout is an emotional state and syndrome in which the professional loses his or her beliefs and positive feelings (optimism), sympathy, and respect for the others. Accompanying this exhausted emotional state are the possibilities of illness, psychosomatic disorders, and physical exhaustion (Laugaa, Rascle, & Bruchon-Schweitzer, 2008). Burnout is also defined as a job-related syndrome. This job-related syndrome can include varying levels of three symptoms: (a) mental exhaustion, (b) cynicism (formerly labeled depersonalization), and (c) reduced professional efficacy or sense of personal accomplishment (Loonstra, Brouwers, & Tomic, 2009).

      Depersonalization. Depersonalization refers to a negative, calloused, or excessively detached response to other people, who are usually the recipients of one's services or care (Brouwers & Tomic, 2000).

      Emotional exhaustion. Emotional exhaustion is a feeling of being emotionally overextended and depleted of one's emotional resources (Brouwers & Tomic, 2000). Maslach et al. (1996) considered emotional exhaustion the key aspect of burnout. This form of exhaustion occurs when individuals believe they have exceeded their limits emotionally at work.

Job satisfaction. Job satisfaction is defined as an individual's positive attitude toward his or her job, including satisfaction in the work place, commitment to the organization, and care regarding his or her quality of work (Scott, Swortzel, & Taylor, 2005).

Reduced personal accomplishment. Reduced personal accomplishment refers to a person's negative self-evaluation in relation to his or her job performance (Brouwers & Tomic, 2000).

Self-efficacy. Self-efficacy is defined as personal agency belief (McCormick & Ayres, 2009). Gavora (2011) has defined self-efficacy as a teacher's judgment about his or her own capacity to bring about desired instructional outcomes. Bandura (2006) described self-efficacy as a person's belief in his or her ability to both organize and perform a task.

Social support. Social support is described as a network of connections with other individuals who can provide support and assistance to a person (Lambert et al., 2010). Snyder (2009) defined social support as a person's mesh of social relationships and transactions. Social supports function as personal resources that will be used in situations of need.

Teacher efficacy. Teacher efficacy is the extent to which a teacher believes he or she has the capacity to affect student performance. Teacher efficacy is also defined as a teacher's belief or conviction that he or she can influence how well students learn, even students who may be difficult or unmotivated (Brouwers & Tomic, 2000).

Summary

Departure rates of teachers are high in comparison to other professions (Chang, 2009; Pas et al., 2012). The burnout level of teachers is among the highest among all service professionals (Fisher, 2011; Parker & Martin, 2009). The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. The COR theory was used to investigate whether a stronger resource pool can predict lower levels of burnout among elementary schoolteachers.

Social support was measured with the DSSI-10 (Wardian et al., 2013). Teacher efficacy was measured with the TSES (Tschannen-Moran & Hoy, 2007). Job satisfaction was measured with the TSS (Ho & Au, 2006). Teacher burnout was measured with the MBI-ES (Maslach et al., 1996).

Chapter 2: Literature Review

The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. In this chapter, current research literature related to teacher burnout, social supports, self-efficacy, and job satisfaction are discussed independently. A review and discussion of current research will also be made within the context of the COR theory.

The databases used in the search for articles related to this study included EBSCOhost, PsycARTICLES, PubMed, ProQuest, PsycINFO, Google Scholar databases, PsycTESTS, and ScienceDirect. The keywords used in the searches included teacher burnout, burnout, work-related burnout, teacher job satisfaction, job satisfaction, teacher self-efficacy, self-efficacy, teacher social supports, social supports, and conservation of resources theory. The majority of the research included in the literature review used quantitative methods and is limited to the past five years of publication.

Teacher Burnout

The literature on the topic of teacher burnout dates back to the 1970s when Freudenberger (1974) first coined the term burnout and described the physical and psychological burnout of healthcare workers. Pisarik (2009) described burnout as a syndrome brought about by an individual's relationship with work. Current research on burnout spans across most occupations, including many types of human-service professionals, such as teachers, nurses, social workers, child protective service workers, and police officers. Assessments revealed that teachers' scores are among the highest levels of burnout among service professionals (Parker & Martin, 2009), resulting in

higher departure rates than other professions (Fisher, 2011). Other documented reactions to burnout within this profession include increased alcohol and tobacco consumption (Papastylianou, Kaila, & Polychronopoulos, 2009). Fernet, Guay, Senécal, and Austin (2012) reported in their research that as many as 20% of the teachers in the area of Canada, where their study took place, had burnout symptoms at least once a week. Health risks associated with burnout include chronic fatigue, depression, recurring flu, infections, migraines, drug use, and cold-like symptoms (Oh & Lee, 2009).

Defining and describing burnout. Teacher burnout is a syndrome described as emotional exhaustion from chronic stressors, depersonalization, including increased negative feelings and attitudes toward others, and lack of personal accomplishment (Aluja et al., 2005). Aluja et al. (2005) hypothesized that emotional exhaustion occurs when a teacher physically and emotionally cannot provide for students academically and in classroom management because of overwhelming feelings of fatigue and stress. Depersonalization includes cynical attitudes toward students, parents, and the workplace in the form of indifference, coldness, distance, generalizing derogatory labeling, and physically distancing actions. Many teachers experiencing burnout believe they are no longer contributing to students' development, ultimately leading to turnover in the teaching profession with significant effect to the system (Aluja et al., 2005).

In Gavish and Friedman's (2010) study, teacher burnout was described as a gradual process, one that stems from stressful events. This gradual process develops over a long period and is a syndrome where recovery is difficult. Additionally, teacher burnout is described to be a burden consuming a large amount of an individual's resources, such as time and energy spent on emotionally damaging situations (Gavish &

Friedman, 2010). Skaalvik and Skaalvik (2007) described teacher burnout in similar terms, emphasizing its key aspect as emotional exhaustion, but adding that symptoms of burnout may also be due to long-term occupational stress. Some of the symptoms include irritability, anxiety, doubt, touchiness, job dissatisfaction, lack of self-respect, lack of self-confidence, despair, discouragement, difficulty concentrating, poor organizing and planning, role-conflict, confusion of teaching duties and rules, a sense of failure, and a loss of interest in the institution (Yavuz, 2009).

A lack of support and poor working conditions were noted as leading to teacher burnout (Grayson & Alvarez, 2008). In addition, stress levels hasten burnout, contributing to the psychological climate within the school (Grayson & Alvarez, 2008). Unaddressed occupational stressors ultimately may lead to burnout (Skaalvik & Skaalvik, 2007).

Occupational stressors leading to burnout. Two of the studies involving a focus on occupational stressors were conducted by Antoniou et al., (2006) and Betoret (2006). Antoniou et al. (2006) sought to identify occupational stressors along with studying the role of both gender and age whereas Betoret (2006) applied occupational stressors in his study of the relationship between self-efficacy, coping resources, and burnout. The areas of stress most prominent in the group of educators Antoniou et al. (2006) reviewed were lack of interest by students, and negative behavior of students. Female teachers in the study had higher levels of job stress. Specific stressors for female teachers included negative interactions with colleagues, students, and workload. The age of the participants was also a factor. Older teachers reported that the majority of their

stress came from the government, whereas the younger teachers had higher levels of burnout in emotional exhaustion and depersonalization.

However, while Antoniou et al. (2006) noted differences based on gender in terms of occupational stressors, Yavuz (2009) focused on the burnout levels of schoolteachers with particular interest in how the dimensions varied by gender and found no differences with regard to lack of personal accomplishment and emotional exhaustion in the participants in the study. Furthermore, composite levels were also similar between genders, but a significant difference in depersonalization levels was noted to be present in terms of gender. Male participants in the study suffering from burnout had higher levels of depersonalization than females suffering from burnout.

As stated earlier, Betoret (2006) employed a slightly different approach by applying occupational stressors in terms of self-efficacy, coping resources, and burnout. Two hundred and forty seven Spanish secondary schoolteachers participated in the study. Results were stressors had strong effects on both motivational and anxiety dimensions. The researcher cautioned that there was bidirectional influence between stressors and burnout and with limitations inherent to using self-reported data from a self-efficacy scale, school coping resources scale, a stressor multilevel context scale, and a burnout scale. However, the findings of both Betoret (2006) and Antoniou et al. (2006) were found to be related to the results of other studies (Baran, 2012; Fernet et al., 2012; Grayson & Alvarez, 2008; Lavian, 2012; Ortner, 2012; Ransford et al., 2009; Retelsdorf et al., 2009; Skaalvik & Skaalvik, 2009) with respect to the factors of burnout being related to the occupational environment as well as physical and emotional characteristics and perceptions.

A combination of an increase in workload and a decrease in autonomy are two influential occupational stressors that can lead to teacher burnout (Peeters & Rutte, 2005). Teacher autonomy is defined as the ability to control both the work environment and him or herself, engage in work-related decision-making, and have the freedom to make prescriptive professional choices with regard to the educational instruction of students (Hyslop-Margison & Sears, 2010; Pearson & Moomaw, 2006). A lack in teacher autonomy is related to the three burnout dimensions of (a) emotional exhaustion, (b) depersonalization, and (c) a lack in personal accomplishment (Skaalvik & Skaalvik, 2009).

Work-related burnout has been linked to a decrease in speed of completing occupational tasks. Ortner (2012) conducted research with secondary teachers in Germany. The researcher used a computerized software program to collect data on the speed at which short-term tasks could be completed with those teachers suffering from work-related burnout and those labeled as burnout-free. Results of the study were those teachers suffering from work-related burnout took longer to complete the tasks on the computerized software program than those teachers deemed healthy. These findings are in alignment with and similar to the earlier findings that the higher the level of burnout, the less likely the teacher implemented a strategy (Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009).

Specifically, researchers have examined how teachers' psychological experiences of burnout and efficacy and their perceptions of curriculum supports were associated with their implementation dosage and quality of promoting alternative thinking strategies for a social-emotional curriculum (Ransford et al., 2009). Results of the research were

teachers' psychological experiences and perceptions of curriculum supports were associated with implementation of the new strategy. Burnout was negatively associated and efficacy was positively associated with implementation dosage. Both Ortner (2012) and Ransford et al. (2012) indicated teacher burnout has become a serious problem, which lends creditability to the need for new strategies and interventions for work-related burnout.

School climate or occupational stressors have been identified as factors with respect to teacher burnout (Baran et al., 2012; Grayson & Alvarez, 2008; Fernet et al., 2012; Ransford et al., 2009; Skaalvik & Skaalvik, 2009). Using demographics gathered on participants including the years of teaching experience, gender, and age, Grayson and Alvarez (2008) sought to understand which factors in a given school climate are pertinent in predicting burnout in teachers. The researchers concluded that the emotional exhaustion dimension of burnout was associated with the teacher's relations with their students, parents, and community (see also Skaalvik & Skaalvik, 2009). The personal accomplishment dimension of burnout was closely related to the extra roles that teachers had outside the classroom, decreasing their abilities to focus on teaching activities (see also Fernet et al., 2012; Ransford et al., 2009; Skaalvik & Skaalvik, 2009). Extra duties could include sponsoring a club, cafeteria or hall duties, and school committees. The third dimension of burnout, depersonalization, paralleled the relationships that teachers had with their peers, their administrative staff, and students.

The perception of the environment at school, including administrative support, pressure to meet deadlines, relationships with students and their parents, and the amount of autonomy each teacher has in how their classroom is designed, was explored by

Skaalvik and Skaalvik (2009) in terms of work-related burnout and its dimensions to the connections to job satisfaction. The results of the study were emotional exhaustion had significant correlation to pressure to meet deadlines and depersonalization and reduced personal accomplishment were strongly related to the relationships with students and their parents. Also noted was an acceleration of working speed (having to complete tasks faster) among teachers and an increase in job duties, such as committee assignments, and increased documentation of individualized instruction in recent years, has resulted in less time for rest and recovery, leading to teacher burnout. This strongly correlates with the findings of Ortner (2012) and Ransford et al. (2009) in that it is apparent that the greater the pressure to accomplish tasks and to do so in a shortened period of time, the greater the likelihood of teacher burnout.

Similarly, Fernet et al. (2012) described two occupational factors, job demands and resources, in their study of teacher burnout. The job demands of someone in the teaching profession were described as the physical environment, work-overload, and student behaviors, whereas the resources included control of one's job, information, supervisory support, innovation, and school climate. Participants in this study were public elementary and high school teachers in Canada. The researchers in this study tested a motivational model, hypothesizing that over the course of a school year, the changes in faculty perceptions of the work place environment were likely to predict changes in individual burnout dimensions including emotional exhaustion, depersonalization, and personal accomplishment (Fernet et al., 2012). Baran et al. (2012) concurred similarly that the level of burnout was reflective of the work environment in terms of resources and the physical conditions. Results of Fernet et al's (2012) study

were support for the motivational model that was tested and was in alignment with other findings of studies such as those conducted by Ortner, (2012) Ransford et al., (2009) and Skaalvik and Skaalvik (2009).

Changing roles and conditions in school systems have been cited as an area of occupational stress in research on teacher burnout (Ortner, 2012; Skaalvik & Skaalvik, 2009). Ransford et al. (2009) examined the changing roles and conditions of teaching professionals across time, including the latest demands resulting from federal legislation such as the No Child Left Behind (NCLB) Act of 2001 that adds additional pressures and accountability. Some of these occupational pressures included working with fewer resources and persistent and chronic overload with an average workweek of 52.8 hours. This sustained job intensification was a leading factor in teacher burnout and a block to a teachers' ability to deliver quality instruction (Ransford et al., 2009).

Understanding the level of burnout in teachers has been the focus of some research because occupational stress not only affects teachers, but also the students that they teach. Baran et al. (2010) aimed their study at preschool, elementary, and private education to see if differences exist because of random variables or factors. Results of the study were schoolteachers who had the highest levels of depersonalization, had the lowest scores of personal accomplishment. Materials available for teaching and the physical conditions of teaching were associated with varying levels of burnout (see also Fernet et al., 2012). The emotional burnout dimensions were high in teachers not satisfied with the quality and quantity of personnel as well as compensation. These studies regarding the environmental factors are closely related to studies of the occupational stressors of educating.

Organizational environment was focused on as an occupational stressor in Lavian's (2012) study of schoolteachers specializing in special education services. Additionally, Lavian included in her study of organizational environment a study of homeroom teachers as a second group. The goal of this study was to develop a comprehensive view of two variables of teaching including occupational stressors and teaching environment and how these variables influenced work-related burnout. While the results of the study indicated that the type of students being taught and the type of class, as occupational stressors, did not have any direct influence in terms of susceptibility to burnout, the organizational environment was determined to be an influence as had been determined by Baran (2012), Fernet (2012), Grayson and Alivarez (2008), Ortner (2012), Peeters and Rutte (2005), Ransford et al. (2009), and Skaalvik and Skaalvik (2009). Specifically, in terms of environment, class size and the complexities of teaching many learning styles were significant factors in influencing burnout (Lavian, 2012). However, support and belief in one's ability to handle the complexities of teaching lowered work-related burnout levels in teachers (Lavian, 2012).

Baran et al. (2010) aimed their study at preschool, elementary, and private education to see if differences exist because of random variables or factors. Results of the study were schoolteachers who had the highest levels of depersonalization, had the lowest scores of personal accomplishment. Occupational stressors included availability of materials for teaching, repetitive daily activities, and the physical conditions of teaching. All of these factors were associated with varying levels of burnout (see also Fernet et al., 2012). The emotional burnout dimensions were high in teachers not satisfied with the quality and quantity of personnel as well as compensation.

The final study within this section also involved a large subgroup in that the participants were Chinese educators (Yang et al., 2009). Occupational stress in terms of the relationship of stress and quality of life of Chinese individuals in the teaching profession was the dominant focus of Yang et al.'s study. Data collected on each participant included their age, gender, educational level, and marital status (Yang et al., 2009). The quality of life among the participants in the study group was lower when compared to the Chinese general population. The gender of the teacher was the most crucial factor for physical health with females having poorer health and higher stress when compared to their male counterparts. Yang et al. (2009) hypothesized that this difference was because female teachers have more responsibilities in teaching, at home, and because of social pressures. Teacher age was inversely associated with personal accomplishment. Female teachers also had higher psychological risk factors stemming from being affected by negative emotions.

Dimension of burnout: Emotional exhaustion. One definition for emotional intelligence is a person's ability to control how they act in certain situations and to perceive, appraise, express, access, and generate emotions (Jude & Grace, 2011). In Jude and Grace's study, emotional intelligence along with locus of control, described by the researchers as one's ability to control the outcomes of events in one's life, were applied as predictors of burnout in secondary schoolteachers in Nigeria. An ex-post facto research design was used with a sample size of 300 teachers. Findings were both locus of control and emotional intelligence were predictors of teacher burnout, thereby further confirming the role of emotions in terms of burnout as purported by Aluja et al. (2005),

Fernet et al. (2012), Grayson and Alvarez (2008), Papastylianou et al. (2009), Skaalvik and Skaalvik (2009), and Yang et al. (2009).

The association between the role of negative emotions like depression, role ambiguity, and conflict to burnout of teachers was the focus of Papastylianou et al.'s (2009) study of primary schoolteachers in Greece. The researchers stated that an increasing number of schoolteachers were retiring early because of mental health problems. Results indicated role ambiguity in participants was determined to be low and the degree of role-conflict was average. Increased negative emotions like depression was tied to teachers with high-levels of emotional exhaustion and depersonalization (see also Aluja et al., 2005; Fernet et al., 2012; Grayson & Alvarez, 2008; Skaalvik & Skaalvik, 2009; Yang et al., 2009). Many of the schoolteachers in this category considered early retirement or taking a sabbatical due to emotional exhaustion.

Negative emotions like depression were also included as a variable in a study of Chinese university teachers (Zhong, You, Gan, Zhang, & Lu 2009). The researchers sought to understand how depressive symptoms, stressors, and work-related burnout were related. Similar to the findings by Papastylianou et al. (2009) and Zhong et al.'s (2009); results indicated that work-related burnout, particularly emotional burnout, was related not only to depression, but also to environmental stressors. Thus, participants with stressors in the work place and suffering from depressive symptoms, scored high on the MBI that had been employed in this study.

Rather than focusing on teacher burnout as a whole, Chang (2009) chose to examine only the emotional exhaustion dimension of teacher burnout and the environmental factors of daily events, limited time for reflection, and limited interaction

with adults. Based upon previous research, Chang concluded that a teacher's emotional exhaustion was because of repetitive thought patterns about student behavior and continual thought patterns about unpleasant teaching tasks. Schoolteachers need to have emotional resources and intellectual social supports that they can draw upon to buffer from emotional exhaustion (see also González-Morales, Rodríguez, & Peiró, 2010; Lambert et al., 2010; Zhongying, 2008).

However, like Chang (2009), by focusing solely on the emotional exhaustion dimension of teacher burnout, Skaalvik and Skaalvik (2010) were able to further define the effects of burnout. Based on their study, a strong association between time pressure and the emotional exhaustion dimension of burnout was noted. There was also a substantial negative indirect relation between time pressure and job satisfaction. Skaalvik and Skaalvik concluded schoolteachers experienced an increase in time pressures resulting in less time for rest and recovery. The recommendation was posited regarding the need for both local and central school leaders to make an effort to reduce time pressures on teachers (Skaalvik & Skaalvik, 2010). This recommendation aligns with the supposition of the proposed study that changes are needed in order to prevent continued teacher burnout.

Employing a broader consideration of burnout in relating to mental and emotional health issues, Luk, Chan, Cheong, and Ko (2010) explored the relationship that teacher burnout has with social problem-solving and holistic health of schoolteachers who work in a private school setting. Some of the variables considered in the study along with burnout included gender, marital status, amount of education of the participants, years of experience teaching, salary, subjects taught, experiences in the teaching profession,

religious affiliation, and membership in professional organizations. The findings were the three dimensions of teacher burnout are significantly correlated with social problem-solving ability indicating burnout may affect one's problem-solving ability. The participants' problem-solving abilities were stated to be directly related to the level of burnout.

Age was a strong predictor of emotional exhaustion and depersonalization. The younger participants, fewer than 30 years of age, scored higher on burnout symptoms, which is in accordance with the Koruklu, Feyziloôlu, Özenoölu-Kiremit, & Aladaö, (2012) study, than those participants between 30 and 50 and teachers over 50 had the least amount of burnout symptoms (Luk et al., 2010). Teaching experience and the participant's marital status were also predictors of reduced personal accomplishment and depersonalization. Those participants with fewer than 10 years of teaching experience had more emotional exhaustion than participants with more than 20. However, the researchers found no consistent evidence that gender played a role in the level of burnout in any of the three dimensions. The researchers also did not find the grade level being taught had any significant bearing on level of burnout, which is in accordance to Lavian's (2012) study regarding class size and type. It should be mentioned that this study included only two private schools.

Moderate levels of emotional exhaustion were present is Macau schoolteachers along with low levels of depersonalization and moderate levels of personal accomplishment (Luk et al., 2010). Marital status was a key variable. Participants not married were more susceptible to burnout, indicating the significance of social support. Luk et al. (2010) suggested other avenues of interest regarding the possible need for

different break lengths for varying positive effects on an individual's problem solving abilities, indicating the concept of cognitive recoupment. One important facet mentioned by the researchers was the demand from the Chinese public for teachers to maintain their understanding of a changing world so that it could be imparted to their students while also maintaining efforts to teach traditional moral education. Additionally, those participants with higher levels of education suffered more from emotional exhaustion and depersonalization than those with less education.

Emotional exhaustion and depersonalization dimensions of burnout were investigated by researchers that wanted to identify the role that gender and specific coping mechanisms played in two studies regarding teacher burnout. González-Moraleset et al. (2010) centered on the role of gender in teacher burnout, specifically depersonalization and emotional exhaustion, in relation to social supports and direct action of the coping mechanisms, whereas Parker, Martin, Colmar, and Liem (2012) considered teacher workplace well-being. Interestingly, both researcher groups concluded that the presence or absence of coping mechanisms could affect teacher burnout with Parker, Martin, Colmar, and Liem also citing that lack of personal accomplishment was also affected.

Dimension of burnout: Depersonalization. Depersonalization, also known as cynicism, was measured in a study that analyzed the effect that a lack of coping mechanisms can have on a teacher's existential fulfillment (Loonstra et al., 2009). Existential fulfillment, in its most positive form, is a way of life full of purpose and meaning, and reveals an existential psychological approach to life. Loonstra et al. hypothesized that lower depersonalization would be present in participants that had high

degrees of existential fulfillment. In a study with a pool of secondary schoolteachers, a positive correlation was found between low existential fulfillment, an inability to cope, and burnout among schoolteachers, specifically in the dimensions depersonalization and emotional exhaustion (Loonstra et al., 2009).

Being spurned and low self-esteem have been tied to high levels of depersonalization in kindergarten and secondary schoolteachers (Cheuk, Wong, & Rosen, 2011). Hong Kong was the setting for a study where researchers examined how teachers' rejection of other teachers, when assistance was being offered, led to low self-esteem and depersonalization. The lack of social support from fellow teachers in the two settings led to high levels of depersonalization, which differs from the results of the study that is was conducted.

The level of dedication to one's work was a potential buffer to burnout that was analyzed in a longitudinal study, specifically with the dimension cynicism, otherwise known as depersonalization (Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012). Similar to the findings of Hollet-Haudebert, Mulki, and Foumier (2011), depersonalization has a negative influence on the dedication and commitment that individuals have to their jobs. Additionally, lack of personal accomplishment also had a negative influence on organizational commitment (Hollet-Haudebert, Mulki, & Foumier, 2011).

Dimension of burnout: Lack of personal accomplishment. Personality and traits, like goal orientation (Parker et al. 2012; Retelsdorf et al., 2009), have been found to be predictor's of teacher burnout (Avtgis & Rancer, 2008; Kokkinos, 2007; Swift & Zimmerman, 2010; Vega, 2010). Kokkinos (2007) studied the personality characteristics of his participants along with job stressors and the dimensions of teacher burnout. The

lack of personal accomplishment dimension of burnout was found to be closely related to personality variables and emotional exhaustion and depersonalization were both related to job stressors. Low-levels of conscientiousness were also associated with higher levels of depersonalization and lack of personal accomplishment (see also Swift & Zimmerman, 2010). High scores in neuroticism were paired with high scores in both emotional exhaustion and depersonalization (see also Swift & Zimmerman, 2010). Extroverts were associated with low burnout levels, which are a comparable finding to Vega (2010).

Personality traits were implemented as a variable in Vega's (2010) study of music therapists and their longevity in the therapeutic field. The average number of years that a music therapist remains in the field is almost 18 years. Some of the personality traits present in the majority of music therapists in the study included sensitivity, warmth, openness to change, self-control, self-reliance, anxious, abstract thought, and extroversion. Job satisfaction and the burnout dimensions emotional exhaustion, depersonalization and lack of personal accomplishment were also variables in the study. The analysis of 314 music therapists resulted in 10% of them having a high degree of burnout and less than 1% of them have little to no work-related burnout. Considering Kokkinos (2007) noted that extroverts had a low level of burnout and Vega's (2010) determination that music therapists tend to be extroverts, the low percentage of burnout among music therapists coincides with the findings of both studies. Additionally, the personality traits were predictive of scores on three of the subscales of work-related burnout (Vega, 2010). Being able to realize some positive change in the music therapist's client was indicated as a reason some of the participants had higher levels of personal accomplishment than their mental health counterparts.

In a meta-analysis conducted by Swift and Zimmerman (2010), personality traits and work-related burnout (emotional exhaustion, depersonalization, & personal accomplishment) were included as variables along with absenteeism, turnover, and job performance. The researchers focused on individual predictors because of the amount of research that was already available on organizational and occupational predictors. Results of the meta-analysis with that of the three dimensions of burnout, personal accomplishment had the strongest relationship with job performance and lack of personal accomplishment had an equally strong relationship with absenteeism. Additionally, those individuals who experienced higher levels of burnout were also prone to engage in negative work-place behaviors such as poor job performance, and eventual turnover (Swift & Zimmerman, 2010).

Lack of personal accomplishment was singled out in the results of one study by Koruklu, Feyziloôlu, Özenoölu-Kiremit, & Aladaö, (2012) that included many demographic variables including age, gender, and years of teaching experience. Male teachers in the study had higher levels of burnout in the lack of personal accomplishment dimension. Another important finding with regard to the age of teachers was those participants who were 41 years old and older had higher scores in lack of personal accomplishment than their younger peers. Finally, years of teaching experience played a significant role in level of personal accomplishment. Those teachers with more than 21 years of experience stated that they felt less successful (Koruklu, Feyziloôlu, Özenoölu-Kiremit, & Aladaö, 2012).

Teacher burnout: Teaching experience. Just as studies have been conducted with focuses upon various aspects or dimensions of burnout, several researchers have

narrowed the field further by focusing on experience factors and or specific populations in an effort to gain further insight into the issue of teacher burnout. Gavish and Friedman (2010) chose to focus their study on teachers in their first year of teaching. Their study of the level of burnout was at two points in time: the beginning and ending of the school-year. Many new schoolteachers suffered from burnout as early as the beginning of their first year as a teacher (see also Fisher, 2011). The negative perception of a schoolteacher's work environment at the beginning and the end of their first year of teaching was a good predictor of burnout. Examples of the negative perceptions of the workplace included lack of supports and rewards, conflicts, inferior salaries, discipline problems, and role ambivalence. Burnout detected at the beginning of the participants first year of teaching was linked to the teacher's training stage. There were also four variables contributing to teacher burnout: (a) little to no appreciation from their students, (b) little to no appreciation from the general public, (c) lack of support and collaboration, and (d) lack of competence in handling the school organizational environment (Gavish & Friedman, 2010).

Teaching experience was part of a study by Fisher (2011) of secondary schoolteachers in that the focus was on the factors that have an influence on burnout, stress, and tension in teaching. One goal of the study was to gauge the difference between burnout and stress of those participants with 5 or less years of teaching experience and those with 5 or more. Results for this part of the study were teachers with 5 or fewer years of teaching experience had higher levels of burnout, particularly those teachers in their first year of teaching. These findings correlate with Gavish and Friedman's (2010) observations and Luk et al.'s (2010) conclusions. Stress levels were

consistent with no significant differences between experience levels. Level of dissatisfaction was also measured and compared to levels of stress of burnout (Fisher, 2011). Participants in the study who had little to no job satisfaction also suffered from stress and burnout. The third goal of this research was to see if a combination of variables were predictors of burnout. The variables included class sizes, years in the teaching profession, gender, age, job satisfaction, and self-acceptance. These variables, with the exception of gender and class size, were significant predictors of burnout (Fisher, 2011). However, it is interesting to note that other researchers, such as Antoniou et al. (2006), González-Morales et al. (2010), Luk et al. (2010), and Yavuz (2009), did find differences in terms of gender and level of burnout.

Teacher burnout: Teaching assignment. Three studies were located wherein a specific population of teachers were selected as the sample population. Emery and Vandenberg (2010) focused on special education teachers whereas Tskigilis and Zournatzi (2011) and Ha, King, and Naeger (2011) recruited physical education teachers, however, different variables were applied in each of the studies as possible predictors of burnout. Special education teachers were reported as being prone to low job satisfaction, low self-efficacy, and increased levels of stress and burnout resulting in high attrition rates (Emery & Vandenberg, 2010).

With respect to the two studies conducted with physical education teachers, the age of the students (primary or secondary) was the variable used by Tsigilis and Zournatzi (2011) and correlated to work-related burnout whereas Ha et al. (2011) considered organizational commitment, job satisfaction, and intent-to-leave the teaching profession in relation to work-related burnout. Specifically, the participants used in

Tsigilis and Zournatzi (2011) included primary and secondary physical education teachers in Greece. The findings were primary schoolteachers suffered from a greater level of emotional exhaustion when compared to secondary schoolteachers. It was also concluded that physical education teachers on the average, have lower levels of burnout when compared to those teachers teaching core academic subjects (Tsigilis & Zournatzi, 2011). Comparatively, Ha et al. (2011) noted many of the physical education teachers suffered from burnout. However, some of the participants in their study had extra roles as a physical education teacher, including coaches of sports teams and thus had higher levels of burnout, which was contributed to having a second role. Emotional exhaustion and lack of personal accomplishment were reported as determinants of job satisfaction and organizational commitment (see also Skaalvik & Skaalvik, 2009). Depersonalization did not have a direct relationship to either of the work outcomes (Ha et al., 2011).

A somewhat larger subgroup of educators, specifically, collegiate educators, were the focus of a meta-analysis regarding emotional exhaustion of teacher stress conducted by Watts and Robertson (2011). A review of 1,004 related literary texts was completed in an effort to gain understanding of the extent of burnout within this group of educators and the predictive variables for burnout. Results indicated that exposure to high numbers of students predicted burnout. This same conclusion could be applied to Ha et al.'s (2011) finding regarding physical education teachers who undertook additional roles of working with students, such as coaching, in that their level of burnout was increased. Younger educators were more vulnerable to emotional exhaustion (see also Antoniou et al., 2006; Fisher, 2011; Luk et al., 2010), whereas male educators scored higher in the depersonalization dimension, which is similar to the findings of Yavuz (2009).

In summation, based on the findings of the multiple studies related within this section of teacher burnout, there is a plethora of variables that could be used to predict or even viewed as causes of teacher burnout. However, there remain gaps in the knowledge as to how these predictors are related and whether it is possible to use these as buffers against teacher burnout.

Teacher Burnout: Buffers. Combating burnout has been studied for both prevention and intervention strategies. Preventative strategies have included equipping teachers with better coping skills, decreasing collegial isolation by increasing constructive collaborative dialogue with professional peers, and developing problem-solving skills (Betoret & Artiga, 2010). Vladut and Kallay (2010) have classified burnout interventions into three categories: (a) person-oriented, (b) organization-oriented, and (c) a combination of person-oriented and organization-oriented. Specific examples given by the authors include cognitive behavioral training, psychosocial skill and communication training, relaxation and autogenic training, organizational job engagement interventions, personal work engagement interventions, and job redesign.

Lee (2011) conducted a study of job stress and burnout in another type of service industry, the field of hospitality. Like the field of teaching, there were significant turnover of employees in this service industry. The effects of workload and leader member exchange on work-related burnout were assessed. Leader member exchange is described as the unique relationship a supervisor has with each of his subordinates (Lee, 2011), which would be considered a type of social support as described by Lambert et al. (2010) connections with individuals who can provide support and assistance. Results of the study were leader member exchange acted as a buffer between workload and the

burnout dimension depersonalization. These results are comparable to those who found social support to be an issue of burnout (Chang, 2009; González-Morales et al., 2010; Lambert et al., 2010; Zhongying, 2008).

Perceived prosocial impact was studied as a potential buffer against burnout by Grant and Sonnentag (2010). The burnout dimension of particular interest in this study was emotional exhaustion. It was proposed by the researchers that the buffering effects for the prosocial behavior of helping others could decrease the amount of time a person spends in negative tasks and in self-evaluation. Chang (2009) had posited a paradoxical concept regarding teachers focusing on the negative and unpleasant details of their work and this leading to emotional exhaustion and burnout. Results of Grant and Sonnentag's (2010) study were in line with the hypothesis that prosocial impact buffered against emotional exhaustion thereby countering, at least in part, burnout. In summary, when negative tasks and negative self-evaluations of one's self are replaced by tasks that are positive, such as helping others, an individual in turn focuses on the positive and in turn is buffered from burnout.

As part of Laugaa et al. (2008) study of stress and teacher burnout, self-efficacy was included among variables that may act as buffers. Their findings indicated self-efficacy as significantly affecting teacher burnout. Depersonalization was lessened by self-efficacy because one perceives that they can face adversity and confront problems, which in turn will give them more opportunity to interact with their students. Self-efficacy was also found to be a buffer against lack of personal accomplishment because a teacher that has a high level of self-efficacy is most likely meeting their goals as a teacher and is being fulfilled by their teaching position.

Social Support

Available literature on job burnout frequently includes social support as a resource for employees who work in jobs requiring face-to-face contact with others (Lambert et al., 2010; Osamah, 2009; Polman et al., 2010; Snyder, 2009; Wright, Banas, Bessarabova, & Bernard, 2010; Yildirim, 2008; Zhongying; 2008). Yildirim (2008) included data on several areas of social support in his study of burnout among school counselors, including principal support, colleague support, friend support, spouse support, and family support. Results of the study indicated some types of social support were related to the three dimensions of burnout and other types of social support were only related to one or two of the dimensions. Principal support, support from colleagues, and support from friends all had significant negative relationships with all of the dimensions of burnout in this study. The support from spouses only had a negative relationship with one dimension, which was lack of personal accomplishment. Lastly, family support had a negative relationship with both emotional exhaustion and lack of personal accomplishment.

Lambert et al. (2010) also concluded that specific types of social support had an effect on at least one of the three burnout dimensions in their study of social support and job burnout among correctional staff. The researchers explored social supports including family and friend support, coworker support, supervisory support, management support, and the effects on work-related burnout. The researchers determined when social support increased, burnout decreased. The social supports, except from family and friends, had a significant role in buffering the effects of burnout as was postulated by Chang (2009), Grant and Sonnentag (2010), and Lee (2011).

Researchers have suggested that stressors in the work place can be eased by the buffering effects of social support received, if it is from colleagues (Chang, 2009; González-Morales, Rodríguez, & Peiró, 2010; Lambert et al., 2010; Zhongying, 2008). There is also evidence that receiving social support may act as a reverse buffer, which is described by Glaser et al. (1999) as stress leading to social support seeking behavior that in turn leads to too much social support. Nahum-Shani and Bamberger (2011) conducted a study to gain understanding of the diverse findings regarding the buffering effects of social support on occupational health. Participants in this study were from many work backgrounds, including railroad workers, flight attendants, electricians, plumbers, painters, assembly-line workers, skilled-trades workers, and skilled-machine operators. The researchers concluded that receipt of support attenuates the effects of working long hours in the aforementioned jobs.

The role of social support was included in research that involved the examination of the communication competence approach, job stress, and job burnout (Wright et al., 2010). Participants in the study were healthcare workers in the United States. The researchers described communication competence as a multidimensional construct made of many skills including empathy, affiliation, flexible behavior, and having a relaxed attitude. Results of the study were perceived communication competence has an effect on social support satisfaction and social support satisfaction has an effect on the perception of stress. Perceived communication competence was also an important variable when assessing work-related burnout in healthcare workers. As Lambert et al. (2010) and several others (i.e., Betoret & Artiga, 2010; Gavish & Friedman, 2010) have

alluded to, the need for communication and or collaborative support can influence the level of burnout and possibly serve as a buffer.

Conversely though, social support was indicated as having played an insufficient role in buffering the effects of burnout in a study of burnout and occupational exhaustion among traffic police agents in Mexico (Beltrán, Moreno, Salazar Estrada, Torrez López, & Aldrete Rodríguez, 2009). The objective of the study was to determine the prevalence of work-related burnout of traffic police agents and the degree of social supports received by the participants in the study. Results of the study showed almost 55% of the participants exhibited significant symptoms of burnout. Even though participants reported high-levels of social supports, the effect of this lone buffer was not enough to combat burnout. Similar to the findings of Lambert et al. (2010), family and friends did not play a significant role in buffering the effects of burnout. Coworkers, supervisors, and directors were also inadequate social supports in buffering the effects of burnout in this occupation.

Zhongying (2008) conducted a study of the relationship of teacher burnout and social supports in junior high schools in Shangqiu of Henan Province China. The types of social support included in the study were supervisors, principals, peers, student's parents, students, relatives, and friends. Results indicated the lack of peers, friends, and leader social supports were predictors of emotional exhaustion and depersonalization and lack of support from leaders, peers, and students was a predictor of reduced personal accomplishment among teachers. Leader support was found to be the most significant buffer of the social supports included in the study. The other social supports, including

relatives and students' parents, did not significantly buffer the effects of burnout, which once more coincides with the findings of Beltrán et al. (2009) and Lambert et al. (2010).

In other studies, researchers chose to investigate only specific supports. For example, in a study of coworker and supervisor support of caregivers in a human-services industry (Snyder, 2009), coworker support had a positive relationship with communicative responsiveness (Chang, 2009; Grant & Sonnentag, 2010; Lambert et al., 2010; Lee, 2011). Snyder (2009) described communicative responsiveness as an individual's capacity to both listen and react to another individual's distress. Finally, supervisor support had a negative association with depersonalization. There are findings that support Snyder's research (Beltrán et al., 2009; Zhongying, 2008). However, there is evidence that there is a positive association between supervisor support and depersonalization (Fernet et al., 2012; Ortner, 2012; Ransford et al., 2009; Skaalvik & Skaalvik, 2009).

The differences in the results of the various studies regarding social support, particularly the influence (Chang, 2009; Fernet et al., 2012; Lambert et al., 2010) or lack of influence (Snyder, 2009; Zhongying, 2008) of administrative or supervisory support could be due to the country and the type of service the participants were involved. An example of this seeming conundrum can be recognized in the research conducted by Bataineh (2009) wherein special education teachers were the participants in a study of the social supports most effective in reducing burnout. The majority of the special education teachers in the study were in high school settings. Results of the study indicated that administrative support was the most effective method in reducing burnout in special education teachers. Bataineh's (2009) study is obviously in contradiction to Snyder

(2009) and Beltrán et al.'s (2009) findings. This conflict of findings also promotes the need to conduct more specific studies in this topic of teacher burnout.

Self-Efficacy

Self-efficacy was described by Bandura (2006) as a unique set of beliefs cultivated through specific functioning with a society. A teacher's self-efficacy has been viewed as the belief schoolteachers can successfully accomplish the desired outcomes of learning in their classrooms (Yost, 2006). Reseachers in the 1980s divided teacher self-effiacy into two dimensions: personal teaching efficacy and teacher efficacy (Gavora, 2011). Gavora (2011) defined personal teaching efficacy as a teacher's belief he or she can facilitate learning and teacher efficacy as the belief he or she can have a positive effect on students, even if negative external factors, such as poorly motivated students and poor home environments exist. In the 1990s, teaching efficacy was renamed general teaching efficacy.

The positive effects of teacher efficacy are many. Gavora (2011) listed many of these effects, including persistence in problem-solving, addition and implementation of innovative teaching strategies, positive emotional and instructional support of students, individualized instruction to the problematic with little whole class instruction, and greater levels of planning adaptation of new ideas.

Four principal sources of teachers' self-efficacy were highlighted by McCormick and Ayres (2009). The first principal source includes mastery experiences. Although mastery experiences represent the strongest source of self-efficacy, they are not always readily accessible because of inexperience. The second principal source includes vicarious experiences; these experiences are those learned by watching others, including

student teaching and observing others. The third principal source of self-efficacy is social persuasion, involving encouragement and persuasion by others, including those in personal and professional roles. The final source of self-efficacy involves physiological and affective states. This source is considered the weakest source of self-efficacy and usually manifests itself in a negative manner, such as aversive arousal with increased heart rate and other physical symptoms (McCormick & Ayres, 2009).

Tschannen-Moran and Hoy (2007) studied two of the four principles: verbal persuasion and mastery experiences in experienced and novice teachers. The TSES was used in this study. Findings in the study were in line with their hypothesis that mastery experiences were strongly related to the experienced teacher's sense of self-efficacy and the novice teacher's sense of self-efficacy was strongly related to the contextual variables, such as verbal persuasion and the availability of resources. This relates to the definition provided by McCormick and Ayres (2009) regarding how mastery self-efficacy is more or less dependent upon experience. Noted is the issue that demographic variables collected in the study did not include any predictors related to self-efficacy beliefs.

Varying study perspectives of self-efficacy. The addressing of teacher efficacy and burnout is comprised of multiple study perspectives. Pas et al. (2010) focused their study on the effects of teacher efficacy and burnout on the ability to respond to student problem behavior, specifically, how low or high efficacy and burnout affect the number of discipline related office referrals. Low efficacy was found to be associated with a reduction in student referrals to the office and teachers scoring high in teacher burnout also had low rates of office referrals. It is believed by the researchers that less collaboration is present when teachers are experiencing low efficacy, thus lowering

referrals. Lower office referrals by teachers with high-levels of burnout were believed by

the researchers to be caused by lower emotional functioning and teacher disengagement.

Low levels of disengagement or depersonalization have been ascribed to characteristics

of burnout and ergo, a lack of emotion and collaboration (Aluja et al., 2005; Baran et al.,

2010; Fernet et al., 2012; Skaalvik & Skaalvik, 2009).

Expanding on their previous study, Pas et al. (2012) also examined the influence

of teacher-level and school-level factors on the development of efficacy and teacher

burnout. Factors not significantly related to burnout or engagement were gender, race,

years of experience, and level of education. Aside from the factors of race and level of

education, these findings are in contrast to the researchers studying gender and work

experience (Antoniou et al., 2006; Luk et al., 2010; Yang et al., 2009; Yavuz, 2009).

With regard to level of education, Pas et al. (2012) stated preparedness does not appear to

be a protective factor across time. Additionally, school-level factors were not found to

have much influence on teacher efficacy, but teacher affiliation was a significant factor in

the growth of teacher efficacy.

The efficacy of preservice and experienced schoolteachers was studied by Klassen

(2011). In this study, context and job stress were included as additional variables.

Measures in the study included an occupational commitment measure, the TSES, the

Teacher Stress Inventory, and a form to collect contextual factors. Results of the study

were experienced schoolteachers had lower levels of occupational commitment, higher

signs of stress, and greater intentions of leaving. Interestingly, these results are

somewhat in conflict with studies that did not incorporate self-efficacy as a variable and

therefore, the more *inexperienced* teachers were noted to have higher levels of stress and

were more prone to burnout (Fisher, 2011; Gavish & Friedman, 2010). However, these findings are important to the proposed study because of the contextual factors and the concept that years of experience may play an important role in both job stress and burnout and the buffers needed.

Working from a slightly different perspective, Erawan (2011) also studied the factors effecting teacher efficacy with preservice teachers in Thailand. The factors included teacher preparation programs, practicum experience, and attitudes toward the teaching profession. Teacher attitude was noted as having a significant relationship to burnout levels of teachers (see also Aluja et al., 2005). Results of the study also indicated direct and indirect practicum experience had a direct relationship to teacher efficacy. The teacher preparation program was deemed to be the strongest predictor of teacher efficacy in the study. Lastly, teacher attitudes toward the profession, including the areas of work conditions, recognition, and payment, were additional predictors of teacher efficacy. Work environment has been noted as a strong influence of teacher burnout (Baran et al., 2012; Grayson & Alvarez, 2008; Fernet et al., 2012; Ortner, 2012; Peeters & Rutte, 2005; Ransford et al., 2009 ; Skaalvik & Skaalvik, 2009) and therefore, it is conceivable that work conditions would also be a factor in teacher efficacy.

Focusing on a specific population, preschool teachers were the participants in a study of teacher self-efficacy (Guo et al., 2011). The researchers examined characteristics of both schoolteachers and their classrooms. The characteristics included level of experience, collaboration with coworkers, teacher influence, and level of student engagement. A major finding in this study was the direct positive correlation between teachers' self-efficacy and their ability to collaborate with others (see also Gavish &

Friedman, 2010; Pas et al., 2010) and his/her influence as a teacher. A secondary finding was teacher collaboration and levels of student engagement were both predictors of a teacher's level of self-efficacy. This secondary finding is supported by Betoret and Artiga's (2010) belief that collaboration serves as a preventative measure toward emotional exhaustion and burnout, which have been posited as results of low self-efficacy.

Incorporating a much larger sample, Skaalvik and Skaalvik (2010) extended their 2009 study to include consideration of the relationship between teacher perception of the school context, teacher self-efficacy, teacher burnout, teacher job satisfaction, and teacher belief that factors external to teaching puts limitations to what they can accomplish. Participants were 2,249 Norwegian schoolteachers from elementary and middle school settings. The researchers found a strong association between time pressure and the emotional exhaustion dimension of burnout and a substantial negative indirect relation between time pressure and job satisfaction (see also Kanwar, Singh, & Kodwani, 2009; Mulki, Lassk, & Jaramillo, 2008). The researchers also determined teachers experience increased time pressure, resulting in less time for rest and recovery and the need for both local and central school leaders to make an effort to reduce time pressures on schoolteachers. Chang (2009) similarly stressed the need for teachers to have adequate time to reflect as well as collaborate in order to avoid emotional depletion leading to burnout. Interestingly, Skaalvik and Skaalvik's (2009) findings support the same premise, a need for change.

Curriculum and self-efficacy. Change in curriculum and the resulting job stress as well as how it may affect teacher self-efficacy was the focus of a study by McCormick

and Ayres (2009). The implementation of a new curriculum in its entirety was studied in 40 Australian schools and noted to have caused significant job stress along the participants with a reduction in participant self-efficacy. As has been hypothesized and concluded by numerous other researchers (Antoniour et al., 2006; Kokkinos, 2007; Lee, 2011; Wright et al., 2010), there is evidence of a direct correlation between job stress and lower teacher self-efficacy and burnout.

Teacher's perceptions of their self-efficacy was reviewed by Adedoyin (2010). Interestingly, teachers who participated in the study scored high in teacher self-efficacy with the exception of questioning their ability to work with high-risk students. This was posited as possibly being related to the teachers' abilities to integrate new curricula and strategies with students with low academic interests. The findings from McCormick and Ayres' (2009) study regarding diminished self-efficacy as a result to job stress of implementing a new curriculum may be related.

Instrumentation focus. Betoret and Artiga (2010) discussed findings from their research on the relationship between occupational stressors, self-efficacy, coping resources, and burnout. The research data was collected using a self-efficacy scale, school coping resources scale, a stressor multilevel context scale, and a burnout scale, which produced data with good internal-consistency and suitable construct validity. Stressors were identified as having strong effects on both motivational and anxiety dimensions. However, cautions were expressed by Betoret and Artigas (2010) to the bidirectional influence between stressors and burnout and with limitations inherent to using self-reported data. The main focus of Simbula and Guglielmi's (2010) research were the dimensions of burnout syndrome and the method used to measure efficacy. In

the study, efficacy statements included in the measurement instruments were replaced with items worded with inefficacy. The hypothesis was there would be a positive and stronger correlation to the dimensions of burnout when *inefficacy* was the term used rather than efficacy. This hypothesis was confirmed in the study and implications were the use of this type of measurement (i.e., use of inefficacy) should be studied further in research. However, further validation as to the reliability of such an instrument for self-reporting efficacy or inefficacy has yet to have been undertaken, therefore bringing into question accurate use of the instrument. Under similar circumstances regarding instrumentation usage, Skaalvik and Skaalvik (2007) used the Norwegian Teacher Self-Efficacy Scale (NTSES) to examine the relations among teacher self-efficacy, perceived collective teacher efficacy, external control, strain factors, and teacher burnout. Participants were 244 elementary and middle schoolteachers. While a strong correlation between teacher self-efficacy and teacher burnout was determined, which is supported by multiple other studies (Baran, 2012; Betoret & Artiga, 2010; Chang, 2009; Fernet et al., 2012; Grayson & Alvarez, 2008; Lavian, 2012; Ortner, 2012; Ransford et al., 2009; Retelsdorf et al., 2009), there are concerns with the use of the instrument. The primary concern expressed by Skaalvik and Skaalvik (2007) was the issue that this particular instrument was tested on participants from only one region of Norway.

Work satisfaction. Teacher self-efficacy was also studied in relation to job satisfaction and positive affect by Moè et al. (2010). A structural equation model was used to determine the reciprocal relationship between the three variables. An indirect relationship was found between job satisfaction and teaching practices and positive effect. Thus, job satisfaction depends on the presence of self-efficacy and positive effect.

Intent-to-leave, which is closely related to the degree of job satisfaction, was also part of a study conducted by Martin, Sass, and Schmitt (2012) along with other variables, including teacher efficacy, instructional management, student engagement, student stressors, and work-related burnout. One result of the study was low teacher efficacy in relation to being able to engage students, increased efforts to control instructional time, thereby creating more behavior problems resulting in a decrease in personal accomplishment. Also noted in the study was that emotional exhaustion and personal accomplishment were predictors of depersonalization and emotional exhaustion was a significant predictor in job dissatisfaction. As alluded to by Skaalvik and Skaalvik (2007) and Yavuz (2009), symptoms of stress and subsequent burnout include job dissatisfaction and job dissatisfaction may lead to emotional exhaustion and burnout.

Job Satisfaction

Job satisfaction is defined as an individual's positive attitude toward their job, including satisfaction in their workplace, commitment to the organization, and care regarding their quality of work (Scott et al., 2005). Lee and Ok (2012) described job satisfaction as an emotional state of mind derived from a person's subjective experiences. Demirtas (2010) identified several attributes in his study of predictors of satisfaction in the workplace, including a person's personal demographics such as age; years of experience; locus of control and educational level; opportunity for advancement; salary; connection and communication with staff, including supervisors, customers, and consumers; and level of autonomy, stress, recognition, and professionalism. Other researchers have described job satisfaction as a global concept (Moya-Albiol, Serrano, & Salvador, 2010).

Emotion-related factors. Job satisfaction, locus of control, and self-esteem were variables in a study of types of burnout of counselors (Lee, Cho, Kissinger, & Ogle, 2010). The researchers looked at the following dimensions of burnout including deterioration of personal life, exhaustion, incompetence, devaluing client, and negative work-environment. The data gathered was used to place counselors in three categories: (a) well-adjusted counselors, (b) those considered disconnected from counseling, and (c) those labeled as persevering counselors. In the first category, well-adjusted counselors had little to no work-related burnout symptoms. The second category included those disconnected from counseling. These counselors had medium scores in the areas of exhaustion, negative work-environment, deterioration in personal life, high scores in incompetence, and devaluing of clients. The final category included counselors who scored high in exhaustion, negative work-environment, and deterioration in personal life, and low in incompetence and devaluing clients. These findings based on counselors are in correlation with similar studies (e.g., Aliuja et al., 2005; Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010; Fernet et al. 2012; Skaalvik & Skaalvik, 2007, 2009) regarding teachers and burnout in that many teachers expressed or exhibited similar emotional exhaustion symptoms.

As indicated above, job satisfaction and work-related burnout were also variables included in a study of a group of secondary schoolteachers in Kent, England (Brackett et al., 2010). The purpose of this study was to examine the protective factors against teacher stress and teacher burnout, including job satisfaction and emotion-regulation ability, described as the ability of a schoolteacher to control their emotional states. Results indicated emotion-regulation ability had a positive correlation to personal

accomplishment and to job satisfaction and a negative correlation to two burnout dimensions, emotional exhaustion and depersonalization. Once more, conclusions similar to these are supported by the findings of others, such as Martin et al. (2012), Moè et al. (2010), Skaalvik and Skaalvik (2007), and Yavuz (2009).

Work and life. Research into prevention and intervention of burnout has been ongoing. One strategy explored by researchers in preventing burnout and maintaining job satisfaction involves the right balance between work and other life activities. Kanwar et al. (2009) explored an individual's level of job satisfaction and the role work-life balance and burnout played as predictors of job satisfaction. The results were work-life balance was positively associated with job satisfaction; when employees were able to pay equal attention to both personal and professional lives, they liked their jobs and were satisfied.

As stated by Mulki et al. (2008), it can be unclear in many cases where work ends and home life begins. Mulki et al. (2008) attributed this to the increased work hours in today's society and the need to multitask. Therefore, the aim of this study was to investigate the effect of work-overload and self-efficacy on job or pay satisfaction. Self-efficacy was identified as a good buffer against stress in participants who worked in sales and reduced work-overload perceptions. If was furthermore noted that participants with high-levels of self-efficacy had increased job and pay satisfaction (see also Martin et al., 2012; Moè et al., 2010).

Similarly to Kanwar et al.'s (2009) study, Kafetsios (2007) found that satisfaction at the work-place may not be contingent on just variables with the workday. Kafetsios (2007) studied the positive and negative relationship between job satisfaction and work

and family conflict. Other variables included in the study were gender and psychological distress. The researcher used participants from the private sector and schoolteachers in the public education sector. Findings indicated that there was a positive relationship between work and family conflict and psychological distress. Additionally, there was a negative relationship as well as an inverse relationship between work and family conflict and job satisfaction. Thus, work and family conflict were inversely related to a positive effect at work, however, gender was not a significant factor in this study.

Job satisfaction has been studied with other work-place variables, including job stress, self-efficacy, collective efficacy, and burnout. Researchers in a remote setting in the Yukon and Canada included these variables in a study of practicing and preservice schoolteachers (Klassen et al., 2011). Other key components explored in the study included variables such as culture as well as geographical and social factors. The results of the study were self-efficacy, job stress, and teaching environment were key factors in the decision process of schoolteachers considering a career change. Practicing teachers in the study had higher levels of work-related burnout symptoms and lower levels of job satisfaction than preservice schoolteachers. This particular finding is similar to Demirtas's (2010) conclusions wherein the more experienced the teacher, the less job satisfaction was apparent. Self-efficacy levels were also higher in practicing schoolteachers than in preservice schoolteachers (see also McCormick & Ayres, 2009). In addition, participant's links with the community and social factors were also found to play an important role in job satisfaction.

Work context factors. Skaalvik and Skaalvik (2009) included job satisfaction as a variable in their examination of the relationship between teacher perception of school

context and teacher burnout among elementary schoolteachers. Measured factors included supervisory support, time pressure, relations to parents, autonomy, gender, number of years teaching, size of school, and the three dimensions of teacher burnout (emotional exhaustion, depersonalization, and personal accomplishment). Results of the study were both the size of the school and the gender of the teacher had no correlation to work-related burnout and job satisfaction, although other studies have indicated a correlation regarding gender (Antoniou et al., 2006; Yang et al., 2009; Yavuz, 2009). There was a positive correlation between the size of the school and social supports. There was a negative correlation between the number of years of teaching and job satisfaction (see also Demirtas, 2010; Klassen et al., 2011). Job satisfaction was related to emotional exhaustion and lack of personal accomplishment dimensions of burnout. Additionally, the researchers concluded that because of the many factors of school context and varying correlations related to the three dimensions of burnout; a future study would be necessary to study the factors of school context individually in relation to each burnout dimension.

Similarly, predicting job satisfaction was part of the focus of one study of schoolteachers employed by the North Carolina Association of Independent Schools (Duffy & Lent, 2009). The purpose of the research was the exploration of a work satisfaction model and the structure of job satisfaction along with organizational support and person-environment fit. Results were a high correlation between subjective person-environment fit and job satisfaction. Thus, a person's work-environment and their satisfaction at work are not unique constructs. Additional findings in the study were

work conditions, self-efficacy, goal attainment, traits with respect to personality, and work-related supports were good predictors of job satisfaction.

Demirtas' (2010) study regarding job satisfaction was conducted to identify specific levels of satisfaction in primary schoolteachers in Turkey (Demirtas, 2010). Components of job satisfaction included being content with one's supervisor, salary, work, peers, administrators, and students, which are also components of work-environment fit as researched by Duffy and Lent (2009). Low teacher job satisfaction was found to involve issues of work stress, psychological distress, and low self-esteem. Job satisfaction was most prevalent in schoolteachers with 6 to 10 years of experience. Schoolteachers with more than 21 years of teaching experience and those with 1 to 5 years scored the lowest in job satisfaction (see also Klassen et al., 2011).

Working from a different perspective, job satisfaction was also examined in a 4-year study for relationships to work-related burnout and absenteeism. The participants in the study were from various companies in the Netherlands (Ybema, Smulders, & Bongers, 2010). The results were a strong correlation between job satisfaction and absenteeism in the participants. Work-related burnout had a longitudinal effect on absenteeism and job satisfaction. There were some limitations in the study, however, including selective attrition, small longitudinal effects, and the use of unproven job satisfaction and burnout scales. However, the stated health issues connected with burnout (Oh & Lee, 2009) supports the concept that absenteeism may also be a factor.

Rather than considering job satisfaction, Otero-López, Castro, Villardefrancos, and Santiago (2009) undertook to understand job dissatisfaction and how it relates to burnout in high schoolteachers in Spain. Two variables included within the study were

the role of student behavior and teacher's perception of how they managed classroom conflict. The specific student behavior being tracked was class disruptions. Teacher's perception of managing conflict included dealing with discipline problems in the classroom and with the parents of the disruptive youth. Both of the aforementioned variables were determined reliable modulators for both level of job dissatisfaction and level of burnout. It is noted that Chang (2009) also posited that a teacher's repetitive thought processes regarding student misbehavior could have a negative effect upon the teacher lead to burnout. Studies on job satisfaction, including job dissatisfaction and the connection to burnout supports one hypothesis of the proposed study that job satisfaction may be a one of a combination of buffers for schoolteachers.

Conservation of Resources (COR) Theory

The COR theory is described as a process where individuals are continually striving to obtain, build, and protect resources they value. When this system fails, psychological stressors develop because of the loss, threat of loss, or lack of replenishment of resources after the individuals have invested their resources (Hobfoll & Shirom, 1993). Resources are defined by Hobfoll (2002) as the items or concepts either centrally valued (individual's health, self-esteem, and close attachments), or act as a means to obtain centrally valued ends, including money, social supports, and credit. Gain and loss spirals are also part of the COR theory. When an individual gains resources, his or her pool of resources increases, resulting in the likelihood that additional resources will be acquired; on the other hand, individuals who lack resources are more susceptible to losing more resources (Llorens et al., 2007). Both scenarios create spiraling effects of resources.

The COR theory has been used in research to explore human behavior in several settings, with the focus placed on resources that an individual has, has lost, or has attained. The developers of the theory placed resources in several categories, including object, condition, personal, and energetic resources (Llorens et al., 2007). The COR theory has also been used in research focusing on burnout and the accompanying loss spiral (Alarcon, Edwards, & Menke, 2011; Buunk, Peíró, Rodríguez, & Bravo, 2007; Innstrand, Langballe, Espnes, Falkum, & Aasland, 2008; Leung & Lee, 2006). The loss of resources result in emotional exhaustion, depersonalization, and a lack of personal accomplishment.

Lack/loss of resources. In a study of burnout among elementary and secondary schoolteachers in a school system in Hong Kong, the COR theory was used to explain how a lack or loss of resources or inadequate resources to meet the demands on the schoolteacher, could lead to burnout and the teacher's decision to eventually quit the teaching profession (Leung & Lee, 2006). Social support, adequate time to complete work, and sufficient ability to cope with discipline problems were the main resources lacking in the participants assessed with work-related burnout using the MBI for teachers (see also Chang, 2009; González-Morales et al., 2010; Lambert et al., 2010; Zhongying, 2008). The results of the study where the three dimensions of burnout were associated with intentions to leave teaching (Klassen & Chiu, 2011) and emotional exhaustion (Skaalvik & Skaalvik, 2007) was the best indicator a teacher would quit (Leung & Lee, 2006). Additionally, those participants with adequate resources in the area of social supports were less likely to suffer from work-related burnout and had no intention of

quitting the teaching profession or retiring early (Leung & Lee, 2006; see also Chang, 2009; González-Morales et al.,2010; Lambert et al., 2010; Zhongying, 2008).

According to the COR theory, individuals try to maintain, gain, and protect resources from loss. In fact, loss of resources, such as a person's status, was more significant than the gains (Hobfoll & Shirom, 1993). For example, in a longitudinal study using the COR theory as a lens, Buunk et al. (2007) focused on exploring resources affecting burnout among Spanish teachers. The resource emphasized in the study was the subjective social status of the teachers, particularly the loss of or low status. The findings confirmed that loss of status as well as low status predicted work-related burnout.

Most individuals experiencing stress are also likely to experience resource loss or possibly perceive the demands of the job exceed the resources available. Often, the stressors at work include problems with coworkers and supervisors in various situational venues regarding differing belief systems and cultural dissimilarities (Harris et al., 2009). Focusing on gaining a better understanding of how social stressors are related to an individual's job satisfaction, altruism, and turnover intentions, Harris et al. (2009) applied the COR theory as a framework in looking at the influence that social stressors have on these variables. As predicted, participants who reported high-levels of social stressors believed their resources, including time and energy, were being threatened and expenditure of more resources was required at work to manage these stressors. In addition, the results confirmed that social stressors led to lower job satisfaction and increased turnover rates in service type professions (see also Demirtas, 2010).

Stressors related to performance at work can also threaten resources related to job satisfaction as determined by Van Emmerik et al. (2008) who conducted research on

employees of a company participating in a developmental assessment survey based on

performance at work. Data was collected on those who received favorable performance

feedback and those who received unfavorable performance feedback. With the COR

theory as their theoretical perspective, the researchers conceptualized that employees who

received unfavorable performance feedback would perceive this as a failure to retain

resources following investment, creating a loss spiral or downward chain of events. The

researchers also examined burnout and the relationship it has to resource losses. Some

direct relationships were found in the study between unfavorable feedback and the

burnout dimension depersonalization (see also Baran et al., 2012). There was also a

positive relationship between three dimensions of burnout and excessive work demands

(see also Fernet et al., 2012).

Demands in the workplace were also predictors of burnout (Day, Sibley, Scott,

Tallon, & Ackroyd-Stolarz, 2009). Predicting burnout through tracking workplace

stressors and risks was researched, using the COR theory because of the depletion of

energy and coping resources related to work-related demands. Work-related demands

can be perceived as threats to resources (see also Parker et al., 2012). Participants in the

study were health-care professionals. Team efficacy was the focus of the study as a

potential buffer from the negative impact of work stressors and burnout. The results of

the study of team efficacy were those participants with greater confidence in the team

skills and training had low-levels of emotional exhaustion and depersonalization.

Resource gains. Tartakovsky (2010) used COR theory in his research to

investigate how altering conditions in socio-economic affect an adolescent's

psychological well-being. In the COR theory, the better the socio-economic conditions

an individual and his or her family have, the higher the individual's psychological well-being. Through the lens of the COR theory, it is assumed that individuals will make concerted efforts to obtain, retain, and protect resources. Examples of these resources could be income, objects, personal characteristics, and conditions. The accumulation of the resources above can lead to increased psychological well-being. Additionally, the lower the socio-economic condition a family faces, the lower the psychological well-being. After analyzing data over the span of 8 years, there was little improvement in well-being, even after improvements in socio-economics. This finding is in direct contradiction to the COR theory. Tartakovsky (2010) added some possible causes for this contradiction. One reason may be that not enough time had gone by for the effect of the improved conditions on the psychological well-being to be significant. Another explanation was that improvement in the socio-economic conditions was not large enough to create a difference.

With differing results, Sanz-Vergel et al. (2010) examined work-family interaction as well, but also examined specific recovery-inhibiting and enhancing conditions as they relate to a person's well-being. The recovery-inhibiting variable was work pressure and the enhancing conditions included recovery after breaks from both work-related stressors and emotional drain. In line with the COR theory, work pressures could imply resource loss and can also result in a loss spiral. The researcher suggested pressures from work and recovery of resources from breaks could assist in predicting work-family conflict, work-family facilitation, and vigor. Expression of emotion also affected both recovery and continued exhaustion.

The conservation of resources theory was used in a study of student burnout and engagement in 1st year college students (Alarcon et al., 2011). The authors of this article noted variables including personality (Parker et al., 2012), social support (Chang, 2009), and coping styles (Betoret, 2006) have been studied as predictors of burnout and engagement, but there is limited research of these variables with college students. Examples of resources, according to the COR theory and in relation to college students include housing, an object resource; social support from friends, a condition resource; conscientiousness, a personal characteristic resource; and money, an energy resource. Results of the study were condition resources, such as social supports, are a significant factor in fostering engagement in universities. Interestingly, similar finding were indicated by researchers of those within the teaching profession (Aluja et al., 2005; Baran et al., 2010; Fernet et al., 2012; Pas et al., 2010; Skaalvik & Skaalvik, 2009).

Spiral effects. One group of researchers applied the COR theory to their study to understand the work-family interactions and burnout. Innstrand et al. (2008) studied the directional influence between work and family interaction, including the type of effect, if it was a conflict (loss or threatened resources) or a facilitation (gaining or maintaining resources), and the burnout dimensions of emotional exhaustion and depersonalization. The results were similar to Buunk et al.'s (2007) findings in that a loss of resources, in this case through conflict, had a high correlation to work-related burnout. Work and family facilitation produced minimal emotional exhaustion and depersonalization (see also Beltrán et al., 2009; Lambert et al., 2010; Zhongying, 2008). In addition, as predicted by the COR theory, work and family facilitation promoted gain spirals and conflict between work and family produced a loss spiral.

Llorens et al. (2007) also studied the gain spiral premise of the COR theory. Personal and task resources along with work-engagement were studied among Spanish university students. The results were the participants' task resources had a positive effect on their self-efficacy (personal resource), thereby increasing work-engagement and completion of the task. In turn, the work-engagement increased an individual's task resources through their personal resources, which in this case is their self-efficacy, thus creating a gain spiral. However, Dirik and Karanci (2010) studied the potential loss of resources and the actual loss of them and found that this type of loss can cause a loss spiral that is very difficult to reverse. The researchers stated psychological stress can also be realized from the lack of resource gain after an individual has invested their resources. Coping and loss of resources were cited as predictors of depression.

Summary

Key areas of research relevant to the proposed study, to examine the relationship between social support, self-efficacy, and job satisfaction, and work-related burnout among elementary schoolteachers, were identified within the literature review. First, researchers seeking to gain more understanding of teacher burnout and its three dimensions of (a) emotional exhaustion, (b) depersonalization, and (c) lack of personal accomplishment, demonstrated long-term occupational and chronic stressors (Skaalvik & Skaalvik, 2007), poor working conditions (Grayson & Alvarez, 2008), increased workload and a decrease in autonomy (Peeters & Rutte, 2005; Skaalvik & Skaalvik, 2009), low existential fulfillment (Loonstra et al., 2009), time pressures (Skaalvik & Skaalvik, 2010), and changing roles and conditions in school systems (Ransford et al., 2009) have had active roles in work-related burnout of schoolteachers. In addition,

preventive strategies have been studied (Betoret & Artiga, 2010) as well as intervention strategies (Vladant & Kelly, 2010). Second, researchers who explored social support, considered an energy resource, indicated coworker, supervisory, and management support can influence work-related burnout (Lambert et al., 2010; Snyder, 2009; Zhongying, 2008), but not in all occupations (Beltrán et al., 2009), and not with all types of supports (Lambert et al., 2010).

Third, the exploration of self-efficacy, a personal resource, indicated the importance of self-efficacy in the teaching profession (Tschannen-Moran & Hoy, 2007). Studies showed diminished self-efficacy can lead to job stress and greater intention-to-leave teaching (Klassen & Chiu, 2011), whereas higher levels of self-efficacy can have a positive effect on job satisfaction (Moè et al., 2010). Fourth, studies of job satisfaction, a condition resource, among schoolteachers indicated teachers with low job satisfaction have burnout-related symptoms (Klassen et al., 2011; Skaalvik & Skaalvik, 2009), job satisfaction has a strong correlation to absenteeism (Ybema et al., 2010), and job satisfaction is a protective factor against teacher burnout (Brackett et al., 2010).

Fifth and last, COR theory is a frequently utilized framework by researchers in studies involving exploring work-related burnout (Buunk et al., 2007; Innstrand et al., 2008; Leung & Lee, 2006). Many studies include impact of loss, gain, and engagement of the resources (Harris et al., 2009; Llorens et al., 2007). Ergo, this is one of the reasons the COR theory will be employed within the framework of this study. The 3 resources that will be included in the study include social supports, self-efficacy, and job satisfaction.

Nassef (2009) discussed her personal account of developing burnout by her fifth year teaching. Because of suffering from the symptoms of burnout, she chose to take a leave to reevaluate her circumstances and become more aware of her needs including the support of the work place, additional training, support from colleagues, and job satisfaction. It is not mentioned if any of her circumstances had changed when she returned to teaching, however on the 15th day of her return, she had to take a medical leave because of burnout. This particular self-case study clearly indicates the importance and value as well as the need for continued study of the relationship between social support, self-efficacy, and job satisfaction, and work-related burnout.

Chapter 3: Research Method

The relationship, if any, among social supports, self-efficacy, and job satisfaction and their relative importance and contributions as buffers among teachers remains unknown. In the context of COR theory, burnout occurs when resources are lost, threatened, or not gained back after stressful situations (Hobfoll, 2001). An assumption of COR theory is individuals are inclined to hold onto, protect, and increase resources that are of value to them and their well-being. Thus, a stronger resource pool may be utilized to predict fewer burnout symptoms among elementary schoolteachers. The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. An assessment was made to see if these variables buffer against teacher burnout. Because teacher age (Antoniou et al., 2006; Grayson & Alvarez, 2008) and years of teaching (Fisher, 2011; Gavish & Friedman, 2010) have been associated with job satisfaction, stress, burnout, and social support, they were included and controlled in this study.

To estimate the relationship among the following variables, multiple regression analysis were utilized. The possible buffering variables included self-efficacy, social support, job satisfaction, age, years of teaching, and work-related burnout among teachers, and to assess if these variables buffer against teacher burnout while controlling for teacher age and years of teaching, the following research questions have been restated, together with the null and alternative hypotheses.

Q1. After accounting for the age and the experience level of the teacher, to what extent does social support predict work-related burnout among elementary schoolteachers in Louisiana?

H1$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

H1$_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, predicts work-related burnout work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

Q2. After accounting for the age and the experience level of the teacher, to what extent does self-efficacy predict work-related burnout among elementary schoolteachers in Louisiana?

H2$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

H2$_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, predicts work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

Q3. After accounting for the age and the experience level of the teacher, to what extent does job satisfaction predict work-related burnout among elementary schoolteachers in Louisiana?

H3₀. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, does not predict work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

H3ₐ. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, predicts work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

This chapter begins with a description of the correlational design of the proposed study. It also describes the participants included in the proposed research and the instruments to be implemented. The operational definition of each variable is also included followed by details of the data collection, processing, and analysis. Finally, methodological assumptions, limitations, delimitations, and ethical assurances are discussed.

Research Methods and Design(s)

A correlational design was used in the quantitative study. The decision to use this type of design stems from the main objective of the study, which was to assess the direction and strength of the relationships among the variables. A quantitative approach is an appropriate method when measurable data are collected on chosen variables from a sample of a larger population for understanding group tendencies (Black, 1999).

Specifically, a correlational design allows researchers to explore if two or more of the variables, which cannot be manipulated in the study, co-vary. Huberty (2003) also suggested using a correlational design for the purpose of exploring the relationship of more than one variable and trying to predict one criterion variable through a multiple regression analysis. The correlational design was used in this study to explore if social support, self-efficacy, and job satisfaction are potential buffers against teacher burnout. Using multiple regression analysis is an appropriate technique to estimate the numerical values of specific parameters so a function can be affixed to a set of data and also to characterize the statistical properties of estimates (Abdi, 2010). Multiple regression analysis was chosen so that the relationships, if any, among the dependent variables, teacher burnout, and the independent variables, social support, teacher efficacy, and job satisfaction, could be measured. The unknown relationships between the independent and dependent variables came from the known values of two or more variables (Moore, 2004). This method of analysis was used in Fisher's (2011) study of factors influencing stress, burnout, and retention of secondary teachers, in the Jude and Grace's (2011) study of burnout among secondary school teachers in Nigeria, and in Day et al. (2009) study of workplace risks and stressors as predictors of burnout.

To address the issue of multicolinearity, the sample was checked for linearity of the relationship between the dependent variables and the independent variable by checking the plot of the observed values versus the predicted values (Karaj & Rapti, 2013; Kassing, Piemonte, Goman, & Mitchell, 2012). Uniform variance was determined by how the pattern of data points fall along the horizontal line. Independence of errors was not a concern because the predictor variable is not a time value. The assumption that

the data points are normally distributed were assessed using the normal probability plot (P-P) plot. Additionally, the software used to analyze the data, Statistical Procedures for the Social Sciences (SPSS) was used to perform statistical analyses on nominal variables, interval and ratio variables, etc.

After receiving approval from the Northcentral University (NCU) institutional review board (IRB), a brief description of the study and a link to the informed consent form, demographic questionnaire, and assessment instruments was placed on the Louisiana Association of Educator's online site. The informed consent, four self-assessment instruments, and the demographic instruments were also loaded into an online survey site for ease of access by participants. Each participant was asked to complete the MBI–ES which has an average estimated reliability using Cronbach's coefficient of .90, .79, and .71 on the three content areas (Maslach et al., 1996), the DSSI-10, with a reported range of internal-consistency of 0.74 (Wardian et al., 2013), the TSES, with reliability of the instrument ranging from .92 to .95 (Tschannen-Moran & Hoy, 2007), the TSS, with a Cronbach internal-consistency (alpha) coefficient of .77 (Ho & Au, 2006), and a demographic questionnaire.

Hypotheses in the proposed research study were tested using a multiple regression analysis. This type of analysis was used to combine the predictor variables including social supports, teacher self-efficacy, and job satisfaction to increase the accuracy of predicting the outcome variable (Cozby, 2007). The outcome variable in this study was teacher burnout.

Descriptive statistics are reported for each of the variables in the study. These statistics include frequency distributions and measures of central tendency for each of the

assessments. Because this research study involves multiple variables, statistics include analysis of the strength of the relationship between the predictor variables and the outcome variable. Use of an online survey linked to a well-established website, such as the Louisiana Association of Educators, increased the pool of potential participants for the study (Maronick, 2011). The online survey design also ensured completed surveys are received because of the elimination of participants having to mail-in completed surveys (Tolstikova & Chartier, 2010). Lastly, use of this method increased the speed that surveys were returned (Vu & Hoffmann, 2008).

Population

The population being targeted for potential participants was schoolteachers currently teaching in the state of Louisiana. It is estimated there are almost 55,000 elementary schoolteachers currently teaching in Louisiana (Louisiana Department of Education, 2012). The participants in this study were elementary schoolteachers currently teaching.

Sample

To attain sufficient power for the proposed study, a priori sample size calculation was performed using the G*Power program (Faul & Erdfelder, 2008). The anticipated effect size (f2) used in the calculation was 0.15, the alpha level was 0.05, and the desired statistical power level was 0.80 (Duffy, Jan, & Allen, 2009). The result of the computerized F-Test, with 10 predictors, indicated a sample size of 118 participants was needed to carry out the study. Similar studies support this method of determining sample size (Alarcon, Eschleman, & Bowling, 2009; Leiter & Maslach, 2009). Thus, a

convenience sample of 118 participants was recruited from elementary schoolteachers currently teaching in Louisiana, with an end total of 171 participants.

The method of recruiting participants for the study was placing a link to the surveys on the Louisiana Association of Educator's Website. The Louisiana Association of Educators represents approximately 20,000 teachers in Louisiana. The Louisiana Association of Educators agreed to send an e-mail (see Appendix G) and an informed consent to their members currently teaching in an elementary setting. The participants for the study included those teachers who voluntarily chose to complete the online survey linked to Louisiana Association of Educator's website. If a sufficient number of participants had not been obtained through this method, additional participants would have been sought through the Louisiana Federation of Teachers. The Louisiana Federation of Teachers has approximately 21,000 members.

Materials/Instruments

For the proposed research, four assessment devices were utilized. To assess the level of teacher burnout, a version of the MBI-ES (Maslach et al., 1996) was used. To assess the available social support systems, DSSI-10 (Wardian et al., 2013) was given. Teacher's self-efficacy was measured with the TSES (Tschannen-Moran & Hoy, 2007). Job satisfaction was measured by the TSS (Ho & Au, 2006).

MBI-ES. The inventory used to determine levels of burnout in teachers was the MBI–ES (Maslach et al., 1996). The MBI has been in use for 28 years with the educator's version having been in use for almost 15 years (Maslach et al., 1996). The ES version of the MBI consists of 22-items. The reliability estimated using Cronbach's coefficient has an average of .90, .79, and .71 on the three content areas of the test: (a)

Emotional Exhaustion, (b) Depersonalization, and (c) Personal Accomplishment, respectively. The reliability of the MBI-ES had similar averages of .90, .76, and .86 respectively. The assessing statements in the MBI-ES each have a 7-point Likert scale with ratings ranging from 1 (*never*) to 7 (*every day*). Researchers have found the higher the scores on Emotional Exhaustion and Depersonalization in combination with low scores on Personal Accomplishment subtests are associated with higher levels of burnout; thus, the scores place each individual teacher on a continuum of burnout ranging from more to less burnout (Maslach et al., 1996).

DSSI-10. The index used to assess social supports was the DSSI-10 (Wardian et al., 2013). The DSSI-10 is a 10-item index that was modified from the original 35-item version of Koenig et al. (1993). A 22-item and an 11-item index are also available. For the purposes of the study, the 10-item scale was used. The 10-items assess social interaction along with the quality of those relationships, also known as social satisfaction. Computations are made for each domain by summing relevant items. The reported range of internal-consistency is 0.74 (Wardian et al., 2013).

TSES. To measure teacher self-efficacy, the TSES (Tschannen-Moran & Hoy, 2007) was used. This scale is implemented to measure multi-efficacy beliefs with a 24-item instrument (Tschannen-Moran & Hoy, 2007). The 24-items in the instrument are assessed on a 9-point scale ranging from 1 (*nothing*) to 9 (*a great deal*). Reliability of the instrument ranges from .92 to .95. The subscale reliability ranges from .86 to .90. The subscales include Efficacy for Instructional Strategies, Efficacy for Student Engagement, and Efficacy for Classroom Management (Tschannen-Moran & Hoy, 2007). For the

purposes of this study, the subscales was combined into a total score by summing the relevant items.

TSS. To measure job satisfaction, the TSS (Ho & Au, 2006) was used. The TSS is a five-item scale assessed on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Ho and Au (2006) found test-retest reliability of the TSS was .76 and the Cronbach internal-consistency (alpha) coefficient was .77.

Operational Definition of Variables

Teacher burnout. The teacher burnout dependent variable was conceptualized as emotional exhaustion, depersonalization, and lack of personal accomplishment (Aluja et al., 2005). Scores from the three subscales of the MBI-ES, including emotional exhaustion, depersonalization, and personal accomplishment, were used to assess the level of teacher burnout of participants in this study. The responses to statements in the survey range from 1, *never*, to 7, *every day*. The primary organizational variables woven into the MBI-ES are role-conflict, role ambiguity, participation in decision-making, reward systems, need deficiency, freedom and autonomy, and social support networks. These variables were collected through the online survey system created through SurveyMonkey. The data collected were exported to SPSS from the survey system.

Social support. The social support independent variable was based on two factors including (a) social interaction, and (b) social satisfaction (Wardian et al. 2013). Scores from the DSSI-10 was used to assess teachers' level of social support. There are two subscales in the DSSI-10. The social interaction subscale has 4-items and the social satisfaction subscale has 6-items. The total range of the DSSI-10 is 10 to 30 with the social interaction subscale ranging from 4 to 12 and the social satisfaction scale ranging

from 6 to 18 (Wardian et al., 2013). This ordinal independent variable was collected

through the online survey system created through SurveyMonkey. The data collected

was exported to SPSS from the survey system.

Teacher efficacy. The teacher efficacy independent variable was based on

current abilities, resources, and opportunity in areas of instructional strategies, classroom

management, and student engagement (Tschannen-Moran & Hoy 2007). To rank the

participant's self-efficacy related to teaching-related tasks, the TSES 9-point response

scale, ranging from 1, *Nothing*, to 9, *A great deal* will be utilized. This is an ordinal

variable. This variable was collected through the online survey system created through

SurveyMonkey. The data collected was exported to SPSS from the survey system.

Job satisfaction. Job satisfaction is a measure of how a teacher perceives his or

her current job situation. The job satisfaction independent variable is on a continuum

between a teacher's real and ideal job (Ho & Au, 2006). Scores from TSS were used to

assess the level of teachers' job satisfaction in the study. This ordinal variable was

collected through the online survey system created through SurveyMonkey. The data

collected was exported to SPSS from the survey system.

Data Collection, Processing, and Analysis

Data collection. Permission to use each survey was obtained from each of the

authors/owners of the instruments with the exception of the MBI-ES, which was

purchased. A permission letter was sent along with the MBI-ES for use in the online

survey. Upon approval from NCU's IRB, the surveys and demographic form was loaded

into online survey system, SurveyMonkey, and activated. When completed, a URL,

Uniform Resource Locator, was assigned to the group of surveys. Participants were able

to access the URL via the Internet. This method of surveying has been successful in

other research endeavors (Buchanan, & Hvizdak, 2009; Fenner, et al., 2012; Gill, Leslie,

Grech, & Latour, 2013). Once the URL was established, it was sent to the Louisiana

Association of Educators who then sent an e-mail and informed consent through their

listserve to potential participants. The e-mail included a brief description of the study

and directions on where to access the URL. The URL link to the surveys was available

for 37 days. If this method had not yielded enough completed surveys, the Louisiana

Federation of Teachers would have been contacted for participation. Responses to the

surveys were collected anonymously by SurveyMonkey. Data downloaded from

SurveyMonkey are being kept in a password-protected computer for backup

documentation by the researcher. To assure that the data remains secure, the following

standard procedural steps were taken. The researcher's computer that contains the data

collected has an encrypted drive with a 15 character complex password. The computer

used is stored in the researcher's locked office. Survey data will be maintained for 3

years after the completion of the study and will be deleted after that time (Gill, Leslie,

Grech, & Latour, 2013).

      Processing. After the participants were finished with the survey, the responses to

the assessments were saved by SurveyMonkey and were available in the Analyze Section

of the online site. At the completion of the collection process, responses to the MBI–ES

(Maslach, Jackson, & Leiter, 1996), the DSSI-10 (Wardian et al., 2013), the TSES

(Tschannen-Moran & Hoy, 2007), and the TSS (Ho & Au, 2006) were exported into

SPSS. Each assessment was scored with the scoring key provided by the publishers.

Incomplete surveys were not included in the analysis (DeVaney, Carr, & Allen, 2009;

Hsieh & Wang, 2012; Vega, 2010). Surveys completed by teachers not currently

teaching in an elementary school setting were also not be included.

Analysis. The data was downloaded from SurveyMonkey into SPSS, a statistical

software package designed to be used to analyze data. The software was used to manage

the data, perform analyses, and ultimately display the overall results. The actual number

of completed surveys was compared to the total of potential participants. The

demographic data of the schoolteachers was analyzed to establish an overall description

of the participants. The demographic data that was collected include age, gender, marital

status, years of teaching experience, number of years in the teaching profession, highest

degree attained, teaching assignment (school), and grade level assignment. The areas

assessed included (a) teacher burnout (emotional exhaustion, depersonalization, and lack

of personal accomplishment), (b) job satisfaction, (c) social supports, and (d) teacher

efficacy. Teacher burnout was measured using the MBI-ES (Maslach, Jackson, & Leiter,

1996) that consists of multiple items rated by the participants on a 6-point Likert scale.

Social supports was measured by the DSSI-10 (Wardian et al., 2013), consisting of two

subscales. Teacher efficacy was measured using the TSES (Tschannen-Moran & Hoy,

2007) using a 9-point Likert scale. Job satisfaction was measured through the use of the

TSS (Ho & Au, 2006) using a 5-point Likert scale.

Pearson correlation and a series of multivariate analyses was used to assess the

relationship among the variables and to evaluate the potential buffering effects of social

support, job satisfaction, and self-efficacy on the three dimensions of teacher burnout,

respectively (Chenevey, Ewing, & Whittington, 2008; Tsigilis & Zournatzi, 2011; Zhong,

You, Gan, Zhang, & Lu 2009). Specifically, the correlations between social support and

work-related burnout (for $H1_0$), between self-efficacy and work-related burnout (for $H2_0$), job satisfaction and work-related burnout (for $H3_0$), was computed. Descriptive statistics are reported for each of the variables in the study in written form and in linear charts.

Assumptions

Several assumptions were identified for the study. The first assumption was teacher burnout, social support, teacher efficacy, and job satisfaction could be measured (Brouwers, Tomic, & Boluijt, 2011; Pas et al., 2012). The second assumption was the variables listed in the first assumption could be measured using an online self-report method (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010; Martin, Sass, & Schmitt, 2012). The third assumption was the participants would complete the online assessments in a professional manner (Ransford et al., 2009). The fourth assumption was the participants would not feel any undue pressure to participate and would volunteer to participate on their own accord (Fernet, Guay, Senécal, & Austin, 2012; Jude & Grace, 2011).

Limitations

The first limitation is the researcher was not able to control the time during the school year the assessments were completed. The time of the school year that the data was collected was based on when the approval was given by the IRB to begin collecting data. The second limitation was this study cannot be generalized to other occupational groups. Caution should also be taken in generalizing the results across teaching venues. This is because data was only being collected from elementary schoolteachers. The third limitation was none of the instruments used had open-ended statements. This limited the responses the participants made. Thus, additional factors that could have been considered

are unknown. The fourth and final limitation was the data collected was from self-reports.

Delimitations

The first delimitations was only online completed surveys were included in the study. The second was that only members of the Louisiana Association of Educators were included in the study. Last, to narrow the scope of the study, the study only included elementary schoolteachers.

Ethical Assurances

Participants in the study were teachers. The teachers were currently teaching in an elementary school setting in Louisiana. Prior approval from appropriate organizations was a necessity when setting up a research study (Heiman, 2002). The researcher retained approval prior to conducting the research from NCU's IRB and the Louisiana Association of Educators.

Protection from harm. Participation by the elementary schoolteachers in the study was voluntary. The teachers were exposed to minimal risks no greater than their daily activities in the classroom. Before each participant began the assessments, they were informed they could stop taking the assessments at any time. There was no penalty to the participants for discontinuing. Data collected was stored in a secured Web-based server and did not contain any participant identifiers.

Informed consent. The informed consent form to be used in this study was attached to the online surveys and to the e-mail to potential participants from the Louisiana Association of Educators. The consent form contained a statement letting the schoolteachers know their participation was voluntary and discontinuing their

participation would not have penalized them in any way. The informed consent form included the purpose. The purpose was to explore the relationship, if any, among social support, self-efficacy, job satisfaction, and work-related burnout among elementary schoolteachers, and to assess if these variables buffer against teacher burnout.

Right to privacy. The participants' privacy was protected during the collection of data. The names of the individuals who agreed to participate was not collected. Instead, a code was be assigned to each set of data. The only demographic data being collected were age, gender, marital status, years of teaching experience, number of years in the teaching profession, highest degree attained, teaching assignment (school), and grade level assignment.

Honesty with professional colleagues. The researcher only utilized elementary schoolteachers who were members of the Louisiana Association of Educators. The research results were reported in their entirety and honestly. Data collected will remain solely with the researcher. The data collected was not fabricated to produce a specific conclusion. No part of the proposed study was plagiarized. Approval was sought from the IRB prior to any data being collected.

Summary

This chapter includes a description of this quantitative study in which the relationship, if any, among social supports, self-efficacy, and job satisfaction and their relative importance and contributions as buffers among teachers has been analyzed. For this study, a quantitative method was chosen and a correlational design was used to determine the relationship, if any, between the independent and dependent variables. Descriptions of the method and research design being used in the quantitative study were

also discussed. This chapter includes the research process as well as a description of the

participants, who were elementary teachers belonging to the Louisiana Association of

Educators. The target sample size of 118 participants was determined by a power

analysis. The survey instruments and the operational definitions have also been

described. The method of collection, processing, and analyzing the data has been

included and discussed in detail. Chapter 3 closes with methodological assumptions,

limitations, delimitations, and ethical assurances.

Chapter 4: Findings

The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. This chapter will first present the data that was collected. The results of the statistical analyses will then be discussed along with an evaluation of the findings of the study.

Results

Two hundred and twenty-eight individuals responded to the survey over a 37 day period. Of the 228 responses, 171 were complete and met the parameters of the study which included teachers that were currently teaching and in an elementary school setting in Louisiana. Data was transferred from SurveyMonkey to an excel file. Data was then analyzed using SPSS software. A post-hoc test was conducted to test the power of the sample of participants. With a sample size of 171 participants, there is a power of .98 for multiple regression with 5 predictors (see Appendix I).

Descriptive statistics of the sample

The frequency of the descriptive statistics was performed for the nominal variables including gender and marital status. Nearly 88% of the sample were female and 12% were male (see Table 1). Nearly 60% the sample were married and 40% were single (see Table 2).

Table 1

Descriptive Statistics for Gender (N = 171)

	Frequency	Percent	Valid percent	Cumulative percent
Valid Female	150	87.7	87.7	87.7
Male	21	12.3	12.3	100.0
Total	171	100.0	100.0	

Table 2

Descriptive Statistics for Marital Status (N = 171)

	Frequency	Percent	Valid percent	Cumulative percent
Valid Married	102	59.6	59.6	59.6
Single	69	40.4	40.4	100.0
Total	171	100.0	100.0	

Descriptive statistical analyses were also performed for the interval and ratio variables. Table 3 displays descriptive statistics of the control, dependent, and independent variables of the study. Normal distributions of the variables were checked with 5% trimmed mean, skewness, and kurtosis values. The mean and a 5% trimmed mean of the variables were not different, suggesting that the extreme scores did not have a strong effect on the mean. The skewness and kurtosis values of the variables were within the range from -1 to +1, so the assumption of normality of the variables was not violated. The mean and 5% trimmed mean of all the variables were not different, suggesting that the extreme scores did not have a strong effect on the means. The

skewness and kurtosis values of the variables were within the range from -1 to +1, so the

assumption of normality of the variables was not violated.

Table 3

Descriptive Statistics for Age, Experience Level, Social Support, Self-efficacy, Job Satisfaction, Emotional Exhaustion, Depersonalization, and Personal Accomplishment (N = 171)

	M	5% Trimmed Mean	SD	Skewness	Kurtosis
Age	46.35	46.25	11.41	.04	-.49
Experience level	17.72	17.33	10.59	.50	-.21
Social support	2.22	2.24	.44	-.73	.31
Self-efficacy	6.63	6.64	1.01	-.11	-.16
Job satisfaction	3.28	3.30	1.07	-.22	-.77
Emotional exhaustion	3.54	3.58	1.47	-.52	-57
Depersonalization	1.53	1.44	1.25	.92	.27
Personal accomplishment	4.67	4.70	.85	-.47	-.32

Hypothesis Testing

Q1. After accounting for the age and the experience level of the teacher, to what

extent does social support predict work-related burnout among elementary schoolteachers

in Louisiana?

H1$_0$. After accounting for the age and the experience level of the teacher (as

measured with the number of years of teaching experience), social support, as measured

with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES,

among elementary schoolteachers in Louisiana.

H1$_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, predicts work-related burnout work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

Q2. After accounting for the age and the experience level of the teacher, to what extent does self-efficacy predict work-related burnout among elementary schoolteachers in Louisiana?

H2$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

H2$_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, predicts work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

Q3. After accounting for the age and the experience level of the teacher, to what extent does job satisfaction predict work-related burnout among elementary schoolteachers in Louisiana?

H3$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, does not predict work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

H3$_a$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, predicts work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

To answer research questions 1, 2, and 3 three hierarchical linear regression tests were performed for three dependent variables including emotion exhaustion, depersonalization, and personal accomplishment. Work-related burnout was measured using three sub-scales. Therefore, the three sub-scales were the dependent variables representing work-related burnout.

Emotional exhaustion. Outliers, normality, linearity, homoscedasticity, and independence of residuals were checked by performing the normal probability plot (P-P) of the regression standardized residual and the scatterplot. The normal P-P plot shows that the points were in a reasonably straight diagonal line, suggesting no major deviations from normality (see Figure 2). In the scatter plot of the standardized residuals, the residuals were roughly rectangularly distributed, with most of the scores concentrated in the center, which also supports the normality of residuals (see Figure 3).

The presence of outliers was checked from the scatter plot with standardized residual values of more than 3.3 or less than –3.3. The Mahalanobis distances were used to check the outliers. The critical value for five independent variables is 20.52 (Pallant, 2011). The maximum value of Mahalanobis distance for work-related burnout is 25.47 that is greater than the critical value of 20.52, suggesting there are outliers. In the data file, two cases are considered as outliers. Another value that was examined is Cook's

distance. The maximum Cook's distance was .14 that is less than 1, suggesting no major problem with these outliers.
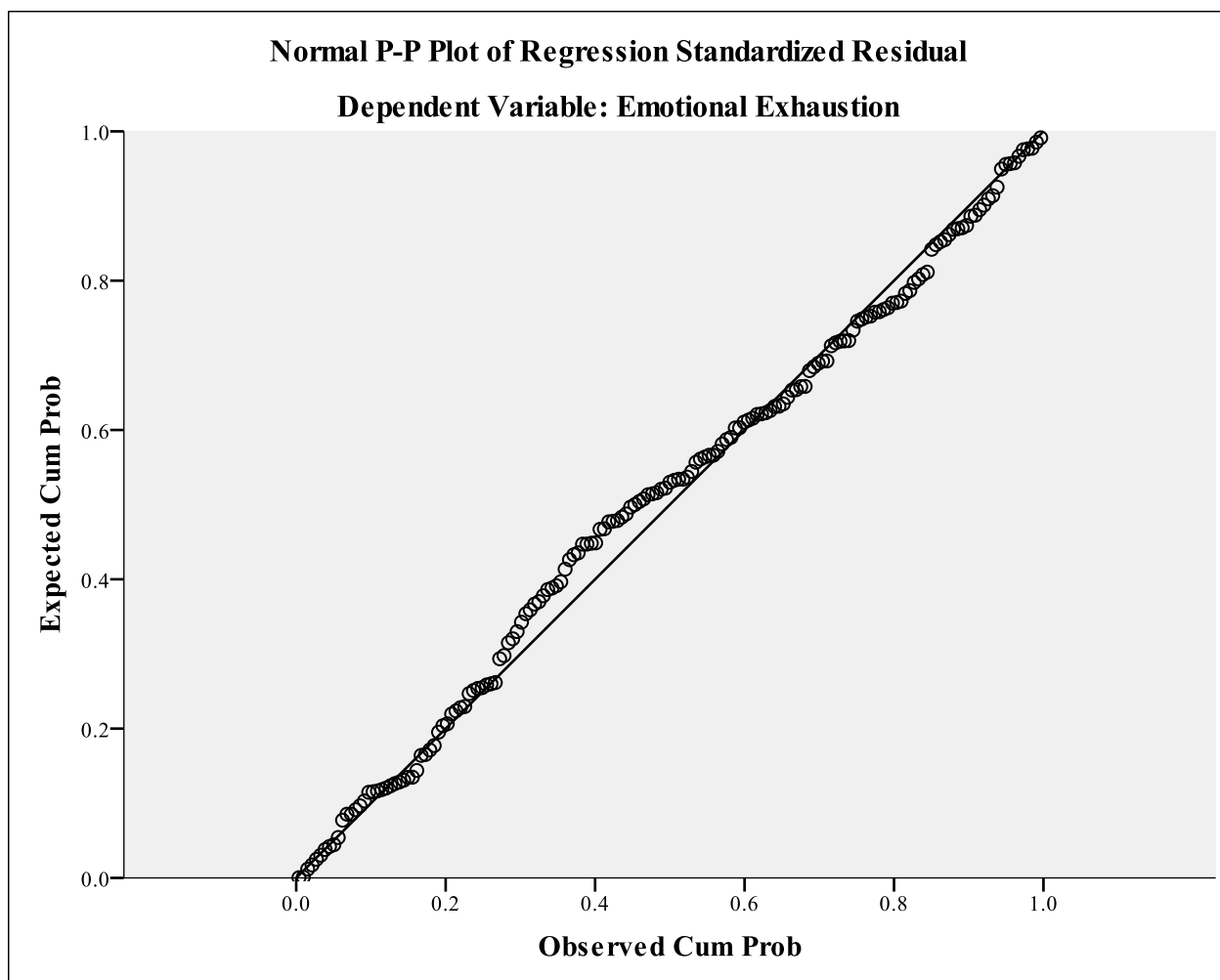
Figure 2 - *Normal P-P plot of regression standardized residual of emotional exhaustion.*
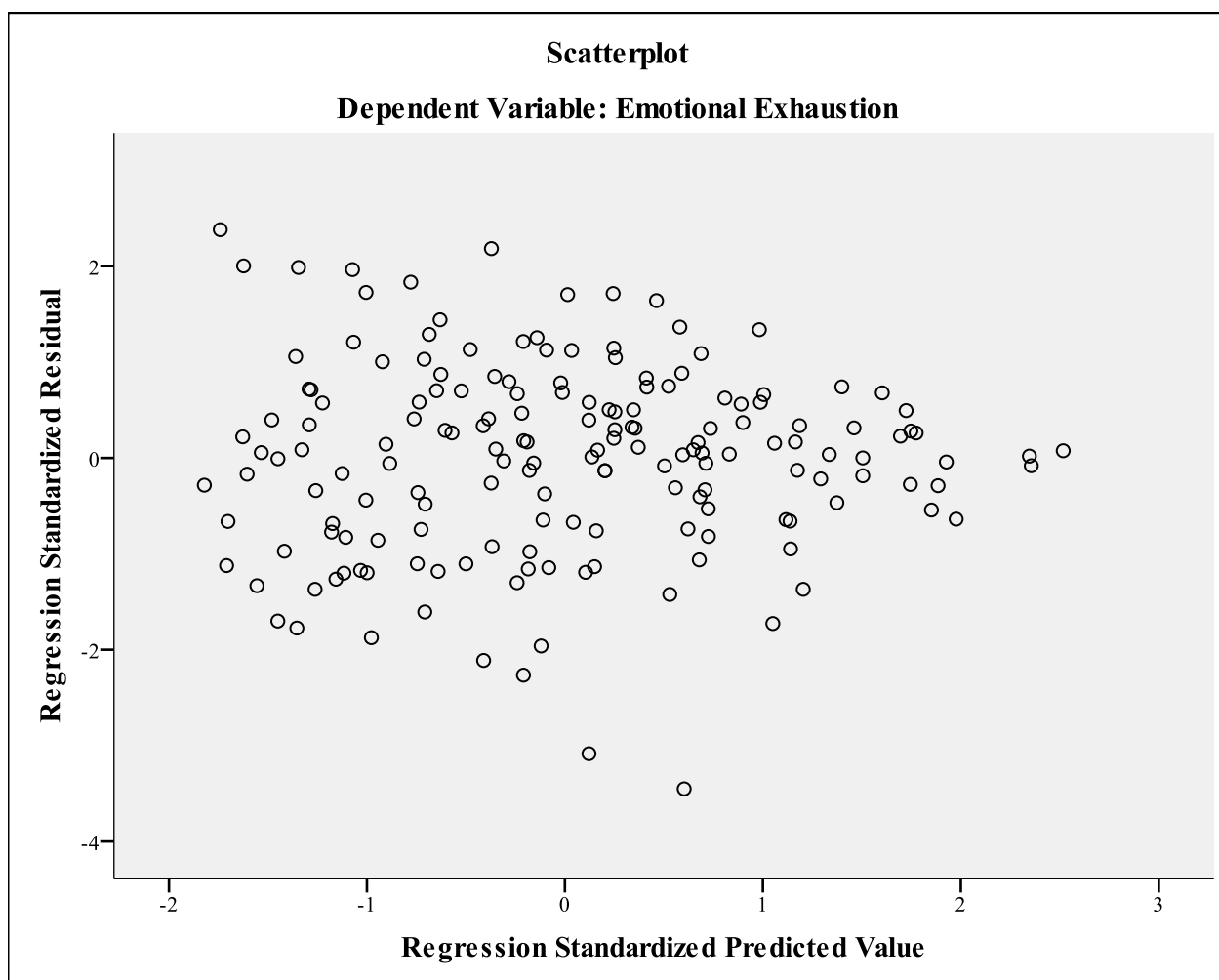
Figure 3 - *Scatter plot for emotional exhaustion.*

Table 4

Residuals Statistics for Emotional Exhaustion (N = 171)

	Minimum	Maximum	*M*	*SD*
Predicted value	1.89	5.80	3.53	.90
Std. Predicted value	-1.82	2.52	.00	1.00
Standard error of predicted value	.11	.47	.21	.05
Adjusted predicted value	1.83	5.79	3.53	.90
Residual	-4.08	2.81	.00	1.16
Std. residual	-3.45	2.380	.00	.98
Stud. Residual	-3.56	2.44	-.001	1.00
Deleted residual	-4.34	2.94	-.003	1.21
Stud. deleted residual	-3.69	2.47	-.002	1.01
Mahal. Distance	.42	25.47	4.97	3.22
Cook's distance	.000	.14	.006	.015
Centered leverage value	.002	.15	.03	.019

Pearson correlations were performed to test the correlations among the variables. The correlations among the independent variables (social support, self-efficacy, and job satisfaction), control variables (age and experience level) and emotional exhaustion were the focus of these analyses. The correlations among independent variables are also tested to see if multicollinearity exists.

The correlations between age and experience level and emotional exhaustion were not significant (p > .05). Social support, self-efficacy, and job satisfaction negatively

correlated to emotional exhaustion. The correlations are significant (p < .05). The

correlations among independent variables were less than .70, so all the independent

variables were retained in the multiple regression model.

Table 5

Pearson Correlations among the Independent Variables, Control Variables, and
Emotional Exhaustion (N = 171)

		Emotional exhaustion	Age	Experience level	Social support	Self-efficacy	Job satisfaction
r	Emotional exhaustion		-.11	-.13	-.31	-.32	-.59
	Age	-.113		.761	.134	.005	.10
	Experience level	-.130	.761		.201	.138	.229
	Social support	-.311	.134	.201		.264	.355
	Self-efficacy	-.316	.005	.138	.264		.383
	Job satisfaction	-.587	.103	.229	.355	.383	
p	Emotional Exhaustion	.	.07	.05	.000	.000	.000
	Age	.07	.	.000	.040	.475	.091
	Experience level	.045	.000	.	.004	.036	.001
	Social support	.000	.040	.004	.	.000	.000
	Self-efficacy	.000	.475	.036	.000	.	.000
	Job satisfaction	.000	.091	.001	.000	.000	.

Next, hierarchical linear regression analysis was performed to determine whether

social support, self-efficacy, and job satisfaction predicted emotional exhaustion, after

controlling for age and experience level. Age and experience level were entered in step

1, explaining 2% in variance of emotional exhaustion. Social support, self-efficacy, and

job satisfaction were entered in step 2. When social support, self-efficacy, and job

satisfaction were entered, these variables explained an additional 35% of the variance of

emotional exhaustion, R^2 change $= .35$, F change $(3, 165) = 31.38$, $p < .001$. This

suggested that the combination of social support, self-efficacy, and job satisfaction

significantly predicted emotional exhaustion after controlling for age and experience

level (see Table 6).

Table 6

Model Summary for Emotional Exhaustion (N = 171)

Step	Predictor	R^2	R^2 change	F change	df1	df2	P
1	Age, experience level	.02	.02	1.48	2	168	.23
2	Age, experience level, social support, self-efficacy, job satisfaction	.37	.35	31.38	3	165	.000

Table 7

Coefficients Table for Social Support, Self-efficacy, Job Satisfaction, and Emotional Exhaustion (N = 171)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	P
1	(Constant)	3.99	.53		7.52	.000
	Age	-.004	.01	-.03	-.29	.77
	Experience level	-.01	.02	-.10	-.88	.38
2	(Constant)	8.29	.83		9.93	.000

Age	-.02	.01	-.15	-1.60	.11
Experience level	.02	.01	.14	1.46	.14
Social support	-.35	.23	-.10	-1.56	.12
Self-efficacy	-.15	.10	-.11	-1.56	.12
Job satisfaction	-.72	.10	-.53	-7.47	.000

In the final model, social support did not significantly predict emotional exhaustion, after controlling for age and experience level (beta = -.10, p > .05). The null hypothesis 1 was not rejected. Self-efficacy did not significantly predict emotional exhaustion, after controlling for age and experience level (beta = -.11, p > .05). The null hypothesis 2 was not rejected. Job satisfaction significantly predicted emotional exhaustion, after controlling for age and experience level (beta = -.53, p < .001). The null hypothesis 3 was rejected. Job satisfaction negatively correlated to emotional exhaustion.

Depersonalization. Outliers, normality, linearity, homoscedasticity, and independence of residuals were checked by performing the normal probability plot (P-P) of the regression standardized residual and the scatterplot. The normal P-P plot shows that the points were in a reasonably straight diagonal line, suggesting no major deviations from normality (see Figure 4). In the scatter plot of the standardized residuals, the residuals were roughly rectangularly distributed, with most of the scores concentrated in the center, which also supports the normality of residuals (see Figure 5).

The presence of outliers was checked from the scatter plot with standardized residual values of more than 3.3 or less than –3.3. The Mahalanobis distances were used to check the outliers. The critical value for five independent variables is 20.52 (Pallant,

2011). The maximum value of Mahalanobis distance for work-related burnout is 25.47 that is greater than the critical value of 20.52, suggesting there are outliers. In the data file, one case is considered as outlier. Another value that was examined is Cook's distance. The maximum Cook's distance was .07 that is less than 1, suggesting no major problem with this outlier.
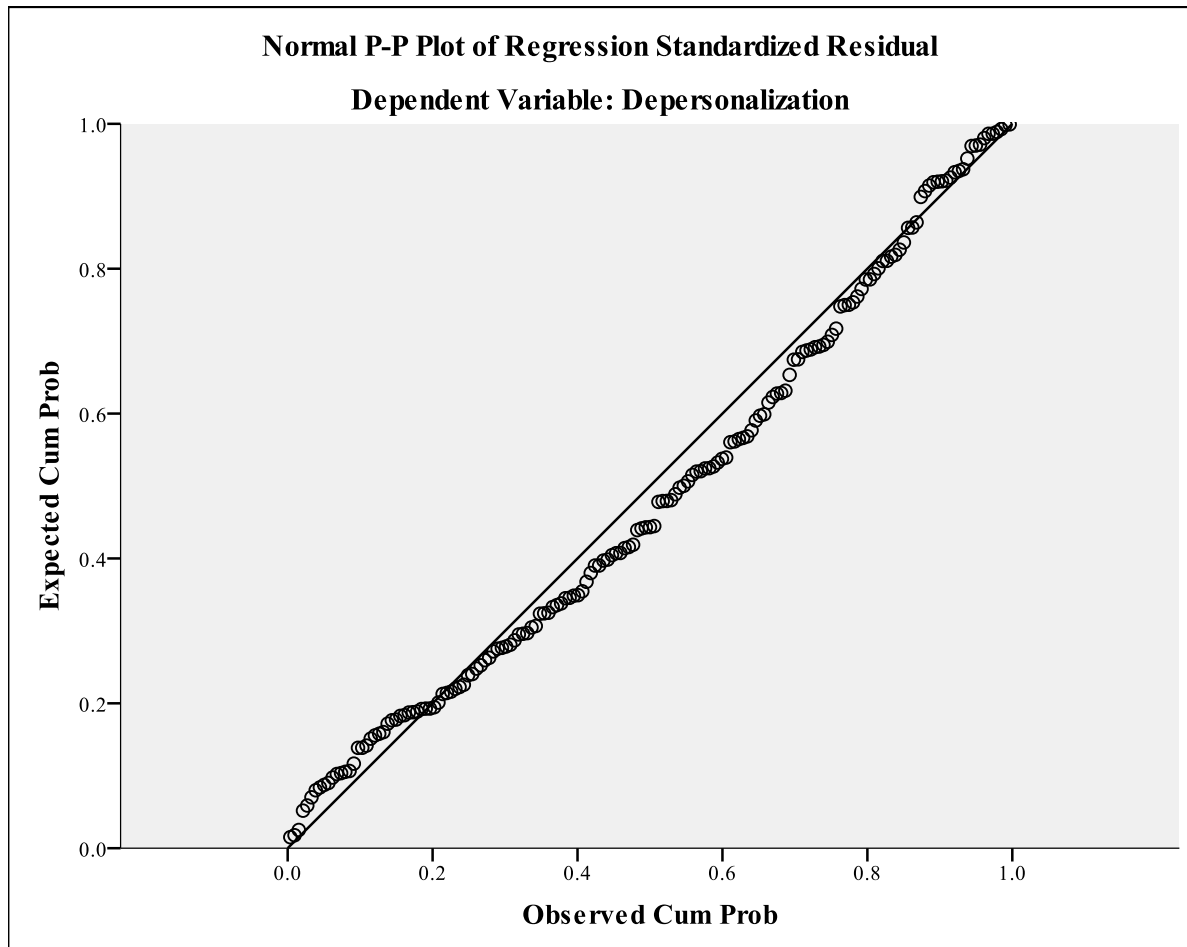
Figure 4 - *Normal P-P plot of regression standardized residual of depersonalization.*

Scatterplot

Dependent Variable: Depersonalization
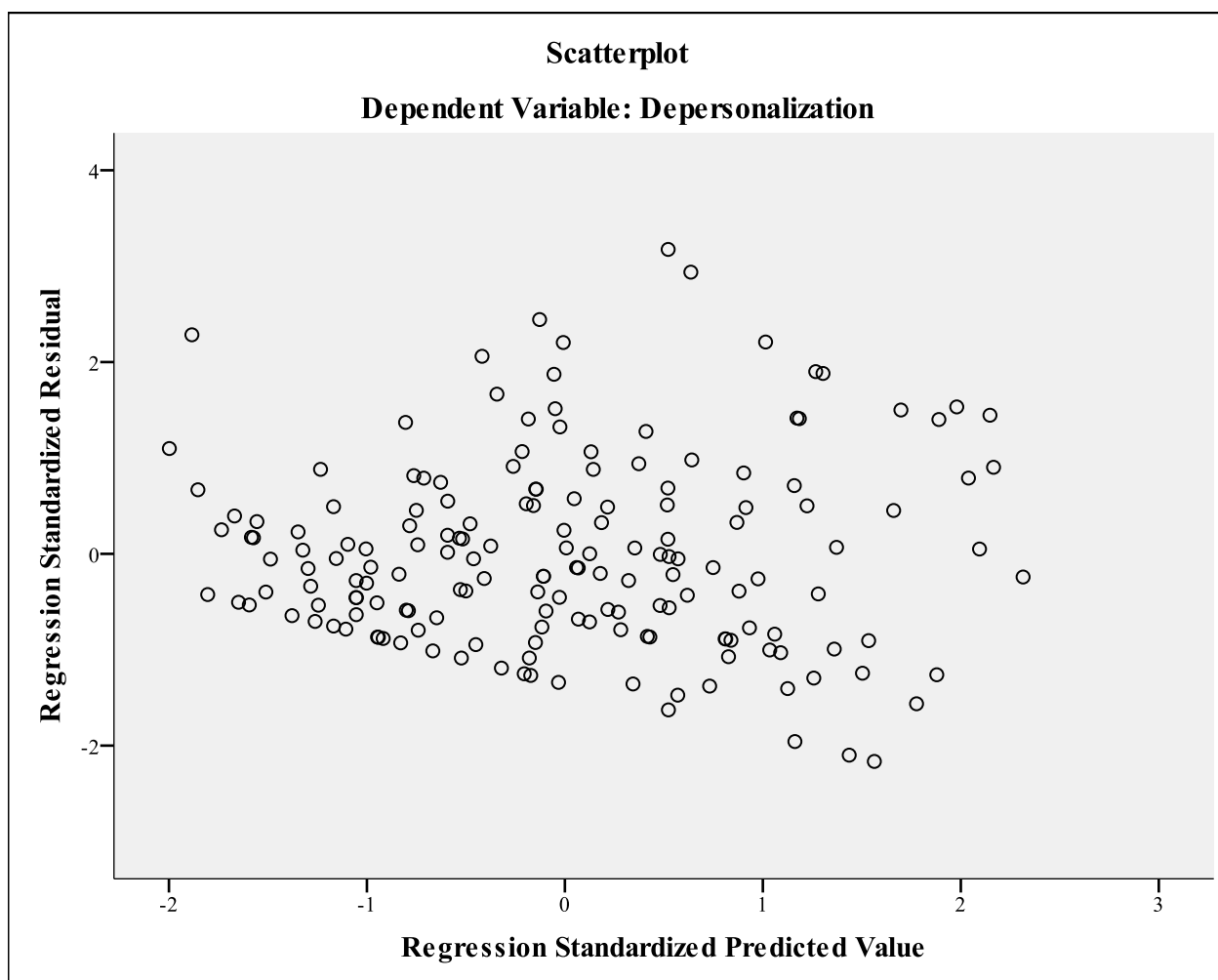
Figure 5 - *Scatter plot for depersonalization.*

Table 8

Residuals Statistics for Depersonalization (N = 171)

	Minimum	Maximum	*M*	*SD*
Predicted value	.36	2.87	1.52	.58
Std. predicted value	-1.99	2.3	.00	1.00
Standard error of predicted value	.10	.44	.20	.05
Adjusted predicted value	.31	2.89	1.53	.58

Residual	-2.43	3.57	.00	1.11
Std. residual	-2.16	3.17	.00	.98
Stud. Residual	-2.24	3.19	-.001	1.00
Deleted residual	-2.62	3.61	-.002	1.15
Stud. deleted residual	-2.28	3.28	.001	1.01
Mahal. Distance	.42	25.47	4.97	3.22
Cook's distance	.00	.07	.006	.01
Centered leverage value	.002	.15	.03	.02

Pearson correlations were performed to test the correlations among the variables. The correlations among the independent variables (social support, self-efficacy, and job satisfaction), control variables (age and experience level) and depersonalization were the focus of these analyses. The correlations among independent variables are also tested to see if multicollinearity exists.

The correlations between age and experience level and depersonalization were not significant (p > .05). Social support, self-efficacy, and job satisfaction negatively correlated to depersonalization. The correlations are significant (p < .05). The correlations among independent variables were less than .70, so all the independent variables were retained in the multiple regression model.

Table 9

Pearson Correlations among the Independent Variables, Control Variables, and Depersonalization (N = 171)

		Depersonalization	Age	Experience level	Social support	Self-efficacy	Job satisfaction
r	Depersonalization		-.10	-.08	-.18	-.24	-.44
	Age	-.10		.76	.13	.005	.10
	Experience Level	-.08	.76		.20	.14	.23
	Social Support	-.18	.13	.20		.26	.36
	Self-efficacy	-.24	.005	.14	.26		.38
	Job Satisfaction	-.44	.10	.23	.36	.38	
p	Depersonalization	.	.097	.16	.01	.001	.000
	Age	.097	.	.000	.040	.48	.09
	Experience Level	.16	.000	.	.004	.04	.001
	Social Support	.01	.04	.004	.	.000	.000
	Self-efficacy	.001	.48	.04	.000	.	.000
	Job Satisfaction	.000	.09	.001	.000	.000	.

Next, hierarchical linear regression analysis was performed to determine whether social support, self-efficacy, and job satisfaction predicted depersonalization, after controlling for age and experience level. Age and experience level were entered in step 1, explaining 1% in variance of depersonalization. Social support, self-efficacy, and job satisfaction were entered in step 2. When social support, self-efficacy, and job satisfaction were entered, these variables explained an additional 21% of the variance of

depersonalization, R^2 change = .21, F change (3, 165) = 14.44, $p < .001$. This is

suggested that the combination of social support, self-efficacy, and job satisfaction

significantly predicted depersonalization, after controlling for age and experience level

(see Table 10).

Table 10

Model Summary for Depersonalization (N = 171)

Step	Predictor	R^2	R^2 change	F change	df1	df2	P
1	Age, experience level	.01	.01	.85	2	168	.43
2	Age, experience level, social support, self-efficacy, job satisfaction	.22	.21	14.44	3	165	.000

Table 11

Coefficients Table for Social Support, Self-efficacy, Job Satisfaction, and Depersonalization (N = 171)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	P
1	(Constant)	2.03	.45		4.49	.000
	Age	-.01	.01	-.10	-.85	.40
	Experience level	.00	.01	.00	.00	.10
2	(Constant)	4.65	.80		5.84	.000
	Age	-.02	.01	-.20	-1.82	.07
	Experience level	.02	.01	.19	1.68	.09
	Social support	-.04	.22	-.01	-.17	.86

| Self-efficacy | -.12 | .09 | -.10 | -1.31 | .19 |
| Job satisfaction | -.49 | .09 | -.42 | -5.31 | .000 |

In the final model, social support did not significantly predict depersonalization, after controlling for age and experience level (beta = -.01, p > .05). The null hypothesis 1 was not rejected. Self-efficacy did not significantly predict depersonalization, after controlling for age and experience level (beta = -.10, p > .05). The null hypothesis 2 was not rejected. Job satisfaction significantly predicted depersonalization, after controlling for age and experience level (beta = -.42, p < .001). The null hypothesis 3 was rejected. Job satisfaction negatively correlated to depersonalization.

Personal accomplishment. Outliers, normality, linearity, homoscedasticity, and independence of residuals were checked by performing the normal probability plot (P-P) of the regression standardized residual and the scatterplot. The normal P-P plot shows that the points were in a reasonably straight diagonal line, suggesting no major deviations from normality (see Figure 6). In the scatter plot of the standardized residuals, the residuals were roughly rectangularly distributed, with most of the scores concentrated in the center, which also supports the normality of residuals (see Figure 7).

The presence of outliers was checked from the scatter plot with standardized residual values of more than 3.3 or less than –3.3. The Mahalanobis distances were used to check the outliers. The critical value for five independent variables is 20.52 (Pallant, 2011). The maximum value of Mahalanobis distance for work-related burnout is 25.47 that is greater than the critical value of 20.52, suggesting there are outliers. In the data file, one case is considered as outlier. Another value that was examined is Cook's

distance. The maximum Cook's distance was .08 that is less than 1, suggesting no major

problem with this outlier.
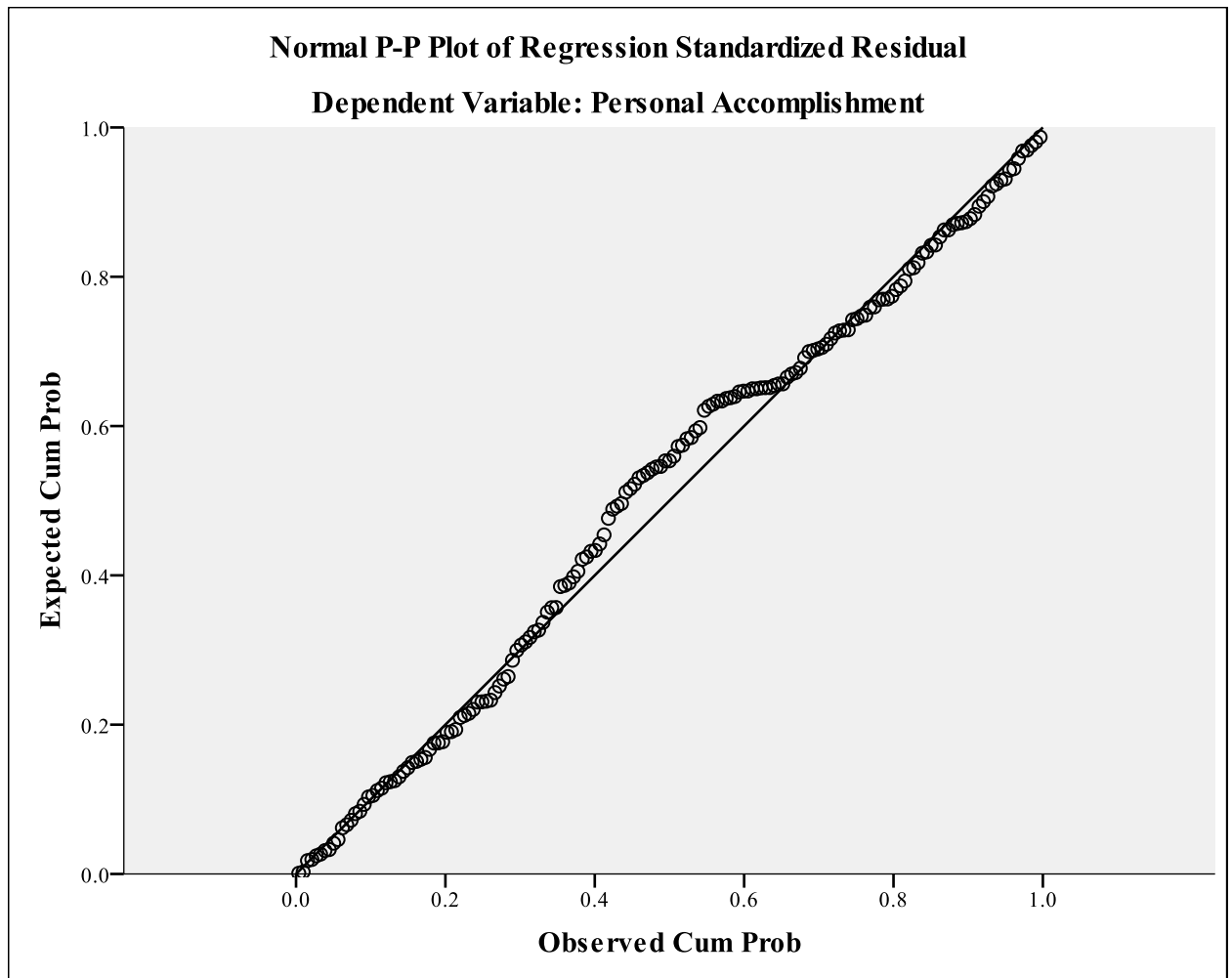
Figure 6 - *Normal P-P plot of regression standardized residual of personal accomplishment.*
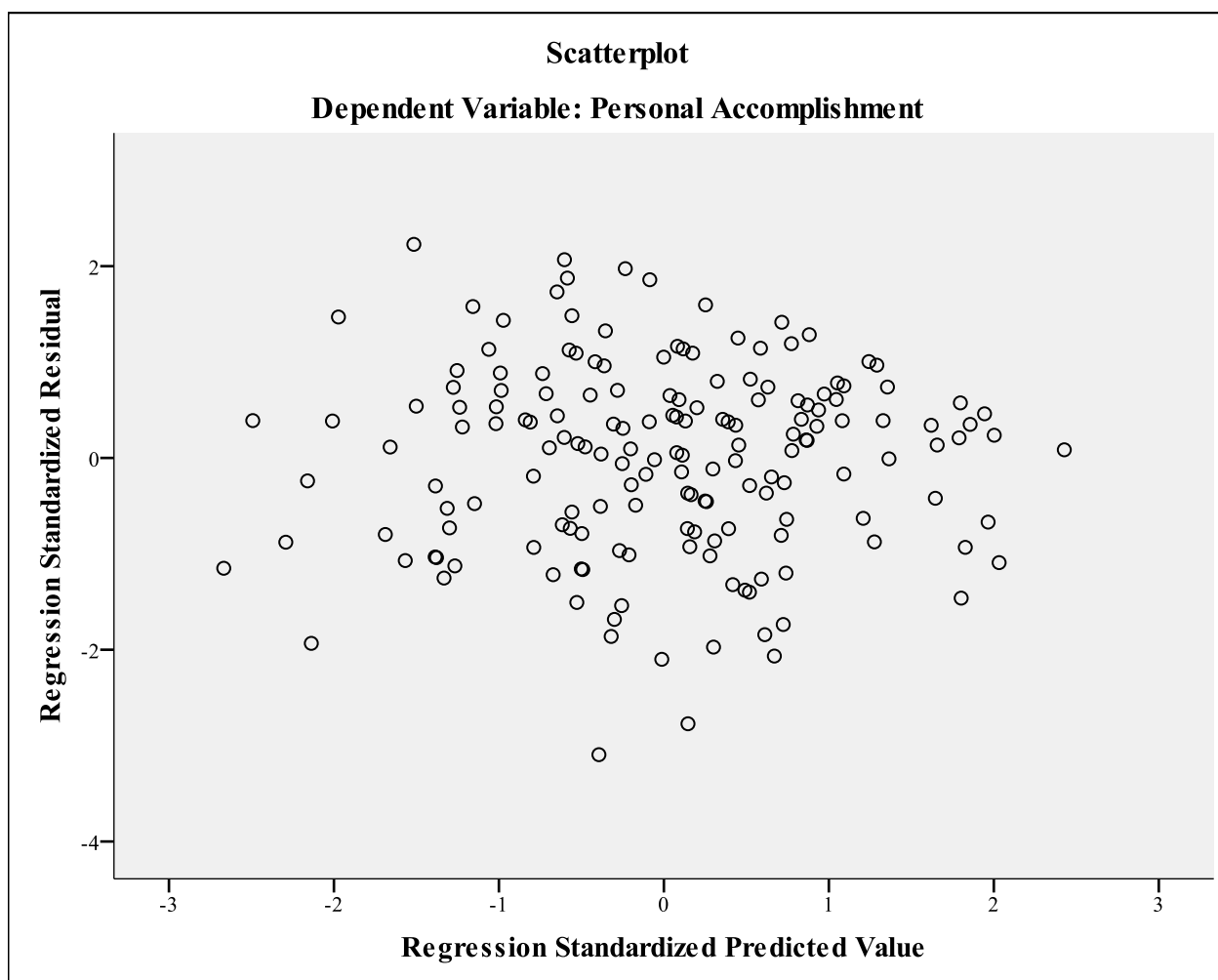
Figure 7 - *Scatter plot for personal accomplishment.*

Table 12

Residuals Statistics for Personal Accomplishment (N = 171)

	Minimum	Maximum	*M*	*SD*
Predicted Value	3.27	5.94	4.67	.52
Std. Predicted Value	-2.67	2.43	.00	1.00
Standard Error of Predicted Value	.06	.27	.12	.03

Adjusted Predicted Value	3.35	5.94	4.67	.52
Residual	-2.09	1.50	.00	.66
Std. Residual	-3.09	2.23	.00	.99
Stud. Residual	-3.12	2.32	.001	1.00
Deleted Residual	-2.12	1.64	.001	.69
Stud. Deleted Residual	-3.21	2.36	.00	1.01
Mahal. Distance	.42	25.47	4.97	3.2
Cook's Distance	.00	.08	.006	.01
Centered Leverage Value	.002	.15	.03	.02

Pearson correlations were performed to test the correlations among the variables. The correlations among the independent variables (social support, self-efficacy, and job satisfaction), control variables (age and experience level) and personal accomplishment were the focus of these analyses. The correlations among independent variables are also tested to see if multicollinearity exists.

The correlations between age and experience level and personal accomplishment were significant ($p < .05$). However the relationships between age and experience level and personal accomplishment were weak ($r = .16$ for age and $r = .24$ for experience level). Social support, self-efficacy, and job satisfaction positively correlated to personal accomplishment. The correlations were significant ($p < .001$). The correlations among independent variables were less than .70, so all the independent variables were retained in the multiple regression model.

Table 13

Pearson Correlations among the Independent Variables, Control Variables, and
Personal Accomplishment (N = 171)

		Personal accomplishment	Age	Experience level	Social support	Self-efficacy	Job satisfaction
r	Personal accomplishment		.16	.24	.33	.51	.48
	Age	.16		.76	.13	.005	.10
	Experience level	.24	.76		.20	.14	.23
	Social support	.33	.13	.20		.26	.35
	Self-efficacy	.51	.005	.14	.26		.38
	Job satisfaction	.48	.10	.23	.35	.38	
p	Personal accomplishment	.	.02	.001	.000	.000	.000
	Age	.02	.	.000	.04	.47	.09
	Experience level	.00	.000	.	.004	.04	.001
	Social support	.000	.04	.004	.	.000	.000
	Self-efficacy	.000	.47	.036	.000	.	.000
	Job satisfaction	.000	.09	.001	.000	.000	.

Next, hierarchical linear regression analysis was performed to determine whether

social support, self-efficacy, and job satisfaction predicted personal accomplishment,

after controlling for age and experience level. Age and experience level were entered in

step 1, explaining 6% in variance of personal accomplishment. Social support, self-

efficacy, and job satisfaction were entered in step 2. When social support, self-efficacy,

and job satisfaction were entered, these variables explained an additional 32% of the variance of personal accomplishment, R^2 change = .32, F change (3, 165) = 28.97, $p <$ .001. This is suggested that the combination of social support, self-efficacy, and job satisfaction significantly predicted personal accomplishment, after controlling for age and experience level (see Table 14).

Table 14

Model Summary for Personal Accomplishment (N = 171)

Step	Predictor	R^2	R^2 change	F change	df1	df2	P
1	Age, experience level	.06	.06	5.22	2	168	.006
2	Age, experience level, social support, self-efficacy, job satisfaction	.38	.32	28.97	3	165	.000

Table 15

Coefficients Table for Social Support, Self-efficacy, Job Satisfaction, and Personal Accomplishment (N = 171)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	P
1	(Constant)	4.48	.30		14.99	.000
	Age	-.005	.009	-.06	-.53	.59
	Experience level	.02	.009	.28	2.47	.01
2	(Constant)	1.08	.48		2.27	.02
	Age	.006	.007	.08	.84	.40
	Experience level	.003	.008	.03	.40	.69

Social support	.22	.13	.11	1.67	.10
Self-efficacy	.31	.06	.37	5.44	.000
Job satisfaction	.22	.05	.28	4.06	.000

In the final model, social support did not significantly predict personal accomplishment, after controlling for age and experience level (beta = .11, p > .05). The null hypothesis 1 was not rejected. Self-efficacy significantly predict personal accomplishment, after controlling for age and experience level (beta = .37, p < .001). The null hypothesis 2 was rejected. Self-efficacy positively correlated to personal accomplishment. Job satisfaction significantly predicted personal accomplishment, after controlling for age and experience level (beta = .28, p < .001). The null hypothesis 3 was rejected. Job satisfaction positively correlated to personal accomplishment. Among three independent variables, self-efficacy contributed the most to the prediction of personal accomplishment, after controlling for age and experience level (beta =.37).

Evaluation of Findings

The research study yielded several findings that are relevant to the exploration of whether a strong resource pool in the context of the Conservation of Resources theory can predict fewer burnout symptoms in schoolteachers. The resources that were included are social supports, self-efficacy, and job satisfaction. Work-related burnout variables included in the study were emotional exhaustion, depersonalization, and personal accomplishment.

With regard to emotional exhaustion, social support, and self-efficacy did not significantly and individually predict work-related burnout. Job satisfaction did

significantly predict emotional exhaustion. The combination, however, of social support, self-efficacy, and job satisfaction significantly predicted emotional exhaustion, after controlling for age and experience level.

The results related to the work-related burnout depersonalization dependent variable were similar to the emotional exhaustion burnout variable. Individually, both social support and self-efficacy did not significantly predict depersonalization. Job satisfaction did significantly predict depersonalization. Finally, the combination of social support, self-efficacy, and job satisfaction significantly predicted depersonalization, after controlling for age and experience level.

Findings related to the work-related burnout lack of personal accomplishment dependent variable include the following. Social support did not significantly predict a lack of personal accomplishment. Both self-efficacy and job satisfaction individually predicted a lack of personal accomplishment. Finally, the combination of social support, self-efficacy, and job satisfaction significantly predicted a lack of personal accomplishment. There was also a significant correlation between age, experience level, and a lack of personal accomplishment.

Summary

The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience of the participating teachers. Three hierarchical linear regression analyses were conducted to test the hypotheses for the three research questions. With regard to work-related emotional exhaustion burnout, null hypotheses 1 and 2 were not rejected. The null

hypothesis for question 3 was rejected. For work-related depersonalization burnout, null hypotheses 1 and 2 were not rejected while the third null hypothesis was rejected. Finally, for work-related lack of personal accomplishment burnout, null hypothesis 1 was not rejected, while the null hypotheses for questions 2 and 3 were rejected. The findings that are included in this chapter have opened up areas of discussion about the potential buffers that are a preventative to work-related burnout.

Chapter 5: Implications, Recommendations, and Conclusions

Schoolteachers at all grade levels are suffering from work-related burnout (Baran et al., 2010; Fernet et al., 2012; Retelsdorf, Butler, Streblow, & Schiefele, 2009). Despite the existence of work-related burnout, some schoolteachers have been able to buffer themselves from it (Kanwar, Singh, & Kodwani, 2009; Klassen, 2011; Osamah, 2009). The specific problem is that the relationship, if any, among a combination of variables, viewed as resources in the COR theory, and their relative importance and contributions as buffers to burnout among teachers remains unknown.

The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. The predictor variables were social support, job satisfaction, and teacher self-efficacy. The outcome variables were teacher burnout, specifically in the areas of emotional exhaustion, depersonalization, and/or a lack of personal accomplishment. Teacher age and experience level were control variables. In the context of the Conservation of Resources (COR) theory, an exploration was conducted as to whether a stronger resource pool, including all three predictor variables, predicts fewer burnout symptoms among elementary schoolteachers.

After approval was received from the Northcentral University (NCU) institutional review board (IRB), a brief description of the study and a link to the informed consent form, demographic questionnaire, and assessment instruments were placed on the Louisiana Association of Educator's online site. The four self-assessment instruments included the MBI-ES (Maslach et al., 1996), the DSSI-10 (Wardian et al., 2013), the

TSES (Tschannen-Moran & Hoy, 2007), and the TSS (Ho & Au, 2006). Once the link

was loaded on the Louisiana Association of Educator's online site, an e-mail was sent out

by the organization to its members notifying them that the link was available. The final

sample consisted of 171 completed surveys.

     The following are limitations that may have affected the results of the study. One

of the limitations of the study was the inability to control the time during the school-year

that the assessments were completed. The second limitation is that the study cannot be

generalized to other occupational groups.

     The ethical dimensions focused on during this study included protection from

harm, confidentiality, and anonymity. To assure protection from harm, the method and

assessments used in this study were approved by NCU's IRB and the Louisiana

Association of Educators. To assure confidentiality, data was collected via a secure

online web link and all downloaded data is kept on a computer that contains an encrypted

drive with a 15 character complex password. The computer was used and stored in the

researcher's locked office. Finally, anonymity was maintained by not collecting in

specific identifiers that could be linked to individual participants.

     Chapter 5 contains a brief overview of the problem statement, purpose, method,

limitations, and ethical dimensions. Implications of the results from chapter 4 are then

discussed, followed by recommendations for future research. Finally, this chapter is

concluded with a discussion of key points.

Implications

     Human-service professionals, including teachers, are at the highest risk of all

professional groups for burnout (Grayson & Alvarez, 2008; Yang, Ge, Hu, Chi, & Wang,

2009). According to the Conservation of Resources (COR) theory, there is a relationship between an individual's resource pool and work-related burnout (Hobfoll & Shirom, 1993). Individuals who have a strong resource pool are likely to experience fewer stressors and burnout symptoms. When an individual's resource pool is threatened, lost, or not obtained or replenished, burnout can occur (Hobfoll, 1998). The resources included in this study were social supports, self-efficacy, and job satisfaction. Each of the research questions and the associated hypotheses are discussed in the context of each of the work-related burnout areas.

Emotional Exhaustion – Research Question 1

Focusing specifically on emotional exhaustion, the first research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does social support predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

H1$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that social support did not significantly predict emotional exhaustion, after controlling for age and experience level (beta = -.10, p >.05). Based on the findings, the null hypothesis H1$_0$, was not rejected. Findings are similar to those of Beltrán et al. (2009) and Snyder (2009). Other research studies have found social supports are a good predictor of emotional exhaustion (González-Morales, Rodríguez, & Peiró, 2010; Lambert et al., 2010; Zhongying, 2008).

Emotional Exhaustion – Research Question 2

Focusing specifically on emotional exhaustion, the second research question of

the study was: After accounting for the age and the experience level of the teacher, to

what extent does self-efficacy predict work-related burnout among elementary

schoolteachers in Louisiana? The null hypothesis for this question was:

H2$_0$. After accounting for the age and the experience level of the teacher (as

measured with the number of years of teaching experience), self-efficacy, as measured

with the TSES, does not predict work-related burnout, as measured with the MBI-ES,

among elementary schoolteachers in Louisiana.

The results of the analysis reveal that self-efficacy did not significantly predict emotional

exhaustion, after controlling for age and experience level (beta = -.11, p > .05). Based on

the findings, the null hypothesis H2$_0$, was not rejected. Other studies have found that

self-efficacy did predict emotional exhaustion (Grant & Sonnentag, 2010; Laugaa et al.,

2008).

Emotional Exhaustion – Research Question 3

Focusing specifically on emotional exhaustion, the third research question of the

study was: After accounting for the age and the experience level of the teacher, to what

extent does job satisfaction predict work-related burnout among elementary

schoolteachers in Louisiana? The null hypothesis for this question was:

H3$_0$. After accounting for the age and the experience level of the teacher (as

measured with the number of years of teaching experience), job satisfaction, as measured

with the TSS, does not predict work-related related burnout, as measured with the MBI-

ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that job satisfaction significantly predicted emotional exhaustion, after controlling for age and experience level (beta = -.53, p < .001). The null hypothesis $H3_0$ was rejected. Job satisfaction negatively correlated to emotional exhaustion. Similar findings were included in Skaalvik and Skaalvik's (2011) study of teacher job satisfaction and motivation to leave the profession.

Finally, a combination of the variables was analyzed. When social support, self-efficacy, and job satisfaction were entered, these variables explained an additional 35% of the variance of emotional exhaustion, R^2 change = .35, F change (3, 165) = 31.38, $p <$ .001. This suggests that the combination of social support, self-efficacy, and job satisfaction significantly predicted emotional exhaustion after controlling for age and experience level.

Depersonalization – Research Question 1

Focusing specifically on depersonalization, the first research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does social support predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

$H1_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that social support did not significantly predict depersonalization, after controlling for age and experience level (beta = -.01, p >.05). Based on the findings, the null hypothesis $H1_0$, was not rejected. One study of teachers in

Hong Kong did find social supports to be a predictor of depersonalization (Cheuk, Wong, & Rosen, 2011).

Depersonalization – Research Question 2

Focusing specifically on depersonalization, the second research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does self-efficacy predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

H2$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that self-efficacy did not significantly predict depersonalization, after controlling for age and experience level (beta = -.10, p > .05). Based on the findings, the null hypothesis H2$_0$, was not rejected. Self-efficacy was a predictor of depersonalization in a study of teacher burnout by Laugaa et al. (2008).

Depersonalization – Research Question 3

Focusing specifically on depersonalization, the third research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does job satisfaction predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

H3$_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured

with the TSS, does not predict work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis revealed that job satisfaction significantly predicted depersonalization, after controlling for age and experience level (beta = -.42, p < .001). The null hypothesis $H3_0$ was rejected. Job satisfaction negatively correlated to depersonalization. Job satisfaction also had a negative correlation to depersonalization in other studies (Hollet-Haudebert et al., 2011; Loonstra et al., 2009)

Finally, a combination of the variables was analyzed. When social support, self-efficacy, and job satisfaction were entered, these variables explained an additional 21% of the variance of depersonalization, R^2 change = .21, F change (3, 165) = 14.44, $p <$ .001. This suggests that the combination of social support, self-efficacy, and job satisfaction significantly predicted depersonalization, after controlling for age and experience level.

Personal Accomplishment – Research Question 1

Focusing specifically on personal accomplishment, the first research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does social support predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

$H1_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), social support, as measured with the DSSI-10, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that social support did not significantly predict personal accomplishment, after controlling for age and experience level (beta = -.11, p >.05). Based on the findings, the null hypothesis $H1_0$ was not rejected. One study concluded that while some forms of social support were significant predictors of personal accomplishment, others had no correlation (Yildirim, 2008).

Personal Accomplishment – Research Question 2

Focusing specifically on personal accomplishment, the second research question of the study was: After accounting for the age and the experience level of the teacher, to what extent does self-efficacy predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

$H2_0$. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), self-efficacy, as measured with the TSES, does not predict work-related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis reveal that self-efficacy did significantly predict personal accomplishment, after controlling for age and experience level (beta = .37, p < .001). Based on the findings, the null hypothesis $H2_0$, was rejected. Self-efficacy positively correlated to personal accomplishment. Skaalvik and Skaalvik (2007) found similar significance in their study of teacher self-efficacy and teacher burnout.

Personal Accomplishment – Research Question 3

Focusing specifically on personal accomplishment, the third research question of the study was: After accounting for the age and the experience level of the teacher, to

what extent does job satisfaction predict work-related burnout among elementary schoolteachers in Louisiana? The null hypothesis for this question was:

H3₀. After accounting for the age and the experience level of the teacher (as measured with the number of years of teaching experience), job satisfaction, as measured with the TSS, does not predict work-related related burnout, as measured with the MBI-ES, among elementary schoolteachers in Louisiana.

The results of the analysis revealed that job satisfaction significantly predicted personal accomplishment, after controlling for age and experience level (beta = .28, p < .001). The null hypothesis $H3_0$ was rejected. Job satisfaction positively correlated to personal accomplishment. Other research studies had similar findings (Brackett et al., 2010; Martin et al., 2012).

Finally, a combination of the variables was analyzed. When social support, self-efficacy, and job satisfaction were entered, these variables explained an additional 32% of the variance of personal accomplishment, R^2 change = .32, *F* change (3, 165) = 28.97, $p < .001$. This suggests that the combination of social support, self-efficacy, and job satisfaction significantly predicted personal accomplishment, after controlling for age and experience level.

Recommendations

The outcomes of this study have revealed that there are resources available to teachers that can act as buffers against work-related burnout. In line with the COR theory, there is a relationship between an individual's resource pool and work-related burnout (Hobfoll & Shirom, 1993). Job satisfaction negatively correlated to all three burnout dimensions. Self-efficacy negatively correlated to one burnout dimension, lack

of personal accomplishment. The research has also revealed that a combination of resources, social support, self-efficacy, and job satisfaction, also buffer teachers from experiencing burnout in all three individual categories including emotional exhaustion, depersonalization, and lack of personal accomplishment.

Three recommendations for future research are suggested from the results of this study. The first recommendation would be to conduct this study with teachers that teach at other grade levels and with teachers in other geographical areas. This would provide an understanding of the generalizability of the results of this research study.

Another recommendation for future research would be change the time in the school-year that data is collected to determine if this is a variable that needs to be considered. The only control variables considered in this study were age and experience level. Other control variables that could be consider are number of students, subjects taught, teacher gender, teacher race, etc.

The final recommendation for future research would be to determine if any other combinations of variables act as buffers against work-related burnout. In this study, it was determined that the combination of social supports, self-efficacy, and job satisfaction act as a buffer from teacher burnout. As noted in the COR theory, there are numerous resources that could potentially be considered as buffers.

Conclusions

The purpose of this quantitative, correlational study was to examine the extent to which social support, self-efficacy, and job satisfaction predict work-related burnout among elementary schoolteachers after correcting for the age and the experience level of the teacher. An online survey system was used to collect data from 171 elementary

schoolteachers. The online survey included a demographic questionnaire, and self-assessment instruments including the MBI-ES (Maslach et al., 1996), the DSSI-10 (Wardian et al., 2013), the TSES (Tschannen-Moran & Hoy, 2007), and the TSS (Ho & Au, 2006).

Results indicated a relationship exists between job satisfaction and all three dimensions of burnout including emotional exhaustion, depersonalization, and personal accomplishment. A relationship also exists between self-efficacy and personal accomplishment. Lastly, the combination of social support, self-efficacy, and job satisfaction significantly predicted all three dimensions of burnout and acted as buffers for some participants.

Recommendations for future studies included generalization of the study to other levels of teaching and geographical areas. Another recommendation would be to consider additional control variables in addition to those included in this study. A final recommendation would be to test other sets of potential buffers from work-related burnout.

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Appendixes

Appendix A:

Duke Social Support Index - 10

1. Do you feel you have a definite role in the family and among friends?
2. Do family and friends understand you?
3. Do you feel useful to family and friends?
4. Do you feel listened to by family and friends?
5. Do you know what's happening with family and friends?
6. Can you talk about your deepest problems?
7. Number of family members within 1 hour that you can depend on or feel close to.
8. Number of times in past week spent with someone not living with you.
9. Number of times in past week talked with friends/relatives on the telephone.
10. Number of times in past week attended meetings of clubs, religious groups, or other groups that you belong to (other than work).

DSSI question from Gannon Watts 📁 Inbox x

Gannon Watts <gannonjwattscounseling@gmail.com>
to blaze001

Mar 14 (5 days ago)

Good Morning,

I would like to use a portion of the DSSI in my assessment of social supports of teachers who may be suffering from burnout. Would this be OK?

Thanks in advance for your consideration,

Gannon

...

Dan G. Blazer, M.D., Ph.D. <dan.g.blazer@duke.edu>
to me

Mar 14 (5 days ago)

Yes, you certainly can use the instrument or parts of it. db

From: Gannon Watts [mailto:gannonjwattscounseling@gmail.com]
Sent: Thursday, March 14, 2013 10:10 AM
**To:** Dan G. Blazer, M.D., Ph.D.
Subject: DSSI question from Gannon Watts

Appendix B:

Teachers' Sense of Efficacy Scale

Teachers' Sense of Efficacy Scale[1] (long form)

Teacher Beliefs	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.									
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant studenis?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

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THE OHIO STATE UNIVERSITY
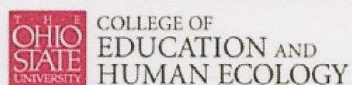
Anita Woolfolk Hoy, Ph.D.

Professor
Psychological Studies in Education

Dear, Mr. Watts

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy of both the long and short forms of the instrument as well as scoring instructions can be found at:

http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm

Best wishes in your work,

Anita Woolfolk Hoy

Anita Woolfolk Hoy, Ph.D.
Professor

Appendix C:

Teaching Satisfaction Scale

◢ PsycTESTS®

Teaching Satisfaction Scale
TSS

Items
_____

1. In most ways, being a teacher is close to my ideal.

2. My conditions of being a teacher are excellent.

3. I am satisfied with being a teacher.

4. So far I have gotten the important things I want to be a teacher.

5. If I could choose my career over, I would change almost nothing.

http://mail.16jda.com:3000/?Session=EREGHHV&View=BlankMessage&External=Yes&Number=5061 - WorldC - Windows Internet Explorer

Reply | Reply to All | Forward | | | | | | X Delete | | | | | Next Unread

Subject: RE: Requesting Approval to use the TSS in Dissertation
To: "'Gannon Watts'" <GWatts@16jda.com>
From: "Winton \(CUHK\)" <b100424@mailserv.cuhk.edu.hk>
Date: 08/15/2012 10:51 PM

Yes, sure! All the best!

From: Gannon Watts [mailto:GWatts@16jda.com]
Sent: Thursday, August 16, 2012 1:07 AM
To: wintonau@cuhk.edu.hk
Subject: Fwd: Requesting Approval to use the TSS in Dissertation
Importance: High

Good Morning,

I am a doctoral student at Northcentral University and I am working on my dissertation that I have entitled "Exploring Self-Efficacy, Social Support, Job Satisfaction, and Teacher Related Burnout". I would like to include the Teaching Satisfaction Scale in an online survey that will also include surveys covering the other variables mentioned in my title. Thanks in advance for your assistance.

Appendix D:

Maslach Burnout Inventory – Educators Survey

MBI–*Educators Survey*

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

How Often 0–6 **Statements:**

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.
4. _____ I can easily understand how my students feel about things.
5. _____ I feel I treat some students as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my students.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some students.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my students.
18. _____ I feel exhilarated after working closely with my students.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel students blame me for some of their problems.

(Administrative use only) EE: cat. DP: cat. PA: cat.

GMail
byGoogle

Gannon Watts <gannonjwattscounseling@gmail.com>

Re: MGAgree: Maslach Burnout Inventory - Educators Survey from Gannon J. Watts (Order # 24134)

info@mindgarden.com <info@mindgarden.com>   Mon, Nov 26, 2012 at 1:29 PM
To: gannonjwattscounseling@gmail.com

Gannon,
Thank you for your order and for completing the Online Use Agreement.
Please feel free to proceed with your study.

Best,
Valorie Keller
Mind Garden, Inc.

Quoting gannonjwattscounseling@gmail.com:

Name: Gannon J. Watts
Email address: gannonjwattscounseling@gmail.com
Phone number: 1-337-251-6503
Company/Institution: student - Northcentral University
Order/Invoice number: 24134
Order Date: 11-26-2012

Project Title: Exploring Self-Efficacy, Social Support, Job Satisfaction, and Teacher Related Burnout
Instrument Name: Maslach Burnout Inventory - Educators Survey

I will compensate Mind Garden, Inc. for every use of this online form.

I will put the instrument copyright on every page containing question items from this instrument.

I will remove this form from online at the conclusion of my data collection.

I will limit access to this online form and require a login or uniquely coded url. Once the login/code is used that evaluation will be closed to use.

The form will not be available to the open Web.

I will include info@mindgarden.com on my list of survey respondents so that Mind Garden can verify the proper use of the instrument.

Method for Restricting Access:
I will be putting the instrument online using Survey Monkey

Electronically signed on 11-26-2012 by Gannon J. Watts.

Appendix E:

Demographic Questionnaire

Age: _____

Gender: _____

Marital Status: _____

Years of Teaching: _____

Highest Degree Attained: _____

Teaching Assignment (School): _____

Grade Level Assignment: _____

Appendix F:

Informed Consent Form

Informed Consent Form

Purpose. You are invited to participate in a research study being conducted for a dissertation at Northcentral University in Prescott Valley, Arizona. The purpose of this study is to explore the relationship, if any, among social support, self-efficacy, job satisfaction, and work-related burnout among elementary schoolteachers, and to assess if these variables buffer against teacher burnout. There is no deception in this study. I am interested in your opinions and reflections about your life.

Participation requirements. You will be asked to complete a demographic questionnaire and four online surveys in the areas of social support, self-efficacy, job satisfaction, and work-related burnout. The session will last approximately 30 minutes to complete.

Research Personnel. The following people are involved in this research project and may be contacted at any time: *Gannon J. Watts Ph# 1-337-251-6503*

Potential Risk/ Discomfort. Although there are no known risks in this study, some of the information is personally sensitive. However, you may withdraw at any time and you may choose <u>not</u> to answer any question you feel uncomfortable in answering.

Potential Benefit. There are no direct benefits to you of participating in this research. No incentives are offered. The results will have scientific interest that eventually may have benefits for people in the school teaching profession.

Anonymity/ Confidentiality. The data collected in this study are confidential. All data are coded such that your name is not associated with the data. In addition, the coded data are made available only to the researcher associated with this project.

Right to Withdraw. You have the right to withdraw from the study at any time without penalty. You may omit questions on any questionnaires if you do not want to answer them.

I would be happy to answer any question that may arise about the study. Please direct your questions or comments to: Gannon J. Watts, 1-337-251-6503, or gannonjwattscounseling@gmail.com

Appendix G:

E-mail to Potential Participants

My name is Gannon Watts, student at Northcentral University. I am conducting a study as part of my dissertation that will explore the relationship, if any, among social support, self-efficacy, job satisfaction, and work-related burnout among elementary schoolteachers, and to assess if these variables buffer against teacher burnout.

Participating in the study will provide information that will be used to assess the variables being studied can buffer against teacher burnout. The online surveys will take a minimum of 30 minutes to complete.

All individual information that you provide is confidential. I am the only researcher for this study. No specific identifiers such as name and social security number are being collected. A final copy of the dissertation will be placed on the LAE website for access by participants.

Consent to Participate

Participation in the study is voluntary. There are no risks to participating in the study. You may withdraw at any time. The information collected from the surveys will be part of data analysis and could contribute to published articles, presentations, or reports. An informed consent form has been included in this e-mail.

A link to the surveys is included below and on the LAE website.
(Will include website at time of approval from IRB)

Please do not hesitate to contact me if you have any questions at gannonjwattscounseling@gmail.com

Appendix H:Permission to Use Figure

Gannon Watts <gannonjwattscounseling@gmail.com>   2:55 PM (19 hours ago)

to stevan_hobfoll

Good Afternoon Dr. Hobfoll,

I am working on my dissertation "Exploring Self-Efficacy, Social Support, Job Satisfaction, and Teacher-Related Burnout" and would like to include your COR Resources Table in the theories section, if given permission.

Thanks in advance for your consideration,

Gannon

...

Stevan Hobfoll   4:43 PM (18 hours ago)

to me

Certainly Gannon and good luck with your dissertation. Remember, the best dissertation is a finished one!!
Stevan

Stevan E. Hobfoll, Ph.D.
The Judd and Marjorie Weinberg Presidential Professor and
Chair, Department of Behavioral Sciences
Rush University Medical Center
1645 W. Jackson Blvd., Suite 400
Chicago, Illinois 60612
phone: 312-942-3686

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Appendix I:

Results from SPSS Data Analysis

F tests - Linear multiple regression: Fixed model, R^2 deviation from zero

Analysis: Post hoc: Compute achieved power

Input: Effect size f^2 = 0.15

            α err prob   = 0.05

            Total sample size   = 171

            Number of predictors   = 5

Output: Noncentrality parameter λ = 25.6500000

            Critical F   = 2.2689317

            Numerator df   = 5

            Denominator df   = 165

            Power (1-β err prob)   = 0.9840959