

Fall 2012

The Prevalence and Correlates of Compassion Fatigue, Compassion Satisfaction, and Burnout Among Teachers Working in High-Poverty Urban Public Schools

Shannon Abraham-Cook
Seton Hall University

Follow this and additional works at: <https://scholarship.shu.edu/dissertations>

 Part of the [Clinical Psychology Commons](#), and the [Educational Administration and Supervision Commons](#)

Recommended Citation

Abraham-Cook, Shannon, "The Prevalence and Correlates of Compassion Fatigue, Compassion Satisfaction, and Burnout Among Teachers Working in High-Poverty Urban Public Schools" (2012). *Seton Hall University Dissertations and Theses (ETDs)*. 1814.
<https://scholarship.shu.edu/dissertations/1814>

THE PREVALENCE AND CORRELATES OF COMPASSION FATIGUE,
COMPASSION SATISFACTION, AND BURNOUT AMONG TEACHERS
WORKING IN HIGH-POVERTY URBAN PUBLIC SCHOOLS

BY

SHANNON ABRAHAM-COOK

Dissertation Committee

Laura K. Palmer, Ph.D., Mentor
Ben K. Beitin, Ph.D.
Peggy J. Farrelly, Ph.D.
Thomas Massarelli, Ph.D.
Cheryl Thompson Sard, Ph.D.

Submitted in partial fulfillment of the
requirements of the Degree of Doctor of Philosophy
Seton Hall University
2012

SETON HALL UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
OFFICE OF GRADUATE STUDIES

APPROVAL FOR SUCCESSFUL DEFENSE

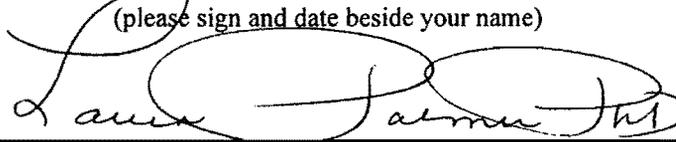
Doctoral Candidate, **Shannon Abraham-Cook**, has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ph.D.** during this **Spring Semester 2012.**

DISSERTATION COMMITTEE

(please sign and date beside your name)

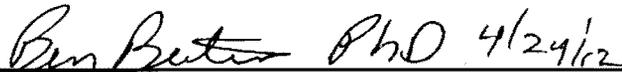
Mentor:

Dr. Laura Palmer

 ABPP 4/24/12

Committee Member:

Dr. Ben Beitin

 PhD 4/24/12

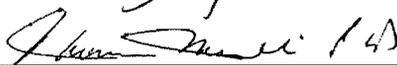
Committee Member:

Dr. Margaret Farrelly

 PhD 4/24/12

Committee Member:

Thomas Massarelli

 4-24-12

Committee Member:

Cheryl Thomas Sard

 PhD. 4-24-12

External Reader:

The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate's file and submit a copy with your final dissertation to be bound as page number two.

ABSTRACT

THE PREVALENCE AND CORRELATES OF COMPASSION FATIGUE, COMPASSION SATISFACTION, AND BURNOUT AMONG TEACHERS WORKING IN HIGH-POVERTY URBAN PUBLIC SCHOOLS

Although public school educators employed in high-poverty urban districts are likely to encounter traumatized children on a regular basis, there is a scarcity of research exploring the psychological effects of secondary traumatic stress exposure in this population. As such, a primary goal of the study was to explore the prevalence and correlates of compassion fatigue among teachers working in inner-city public schools. In addition, while a considerable body of research has addressed teacher burnout, relatively few studies have focused on the distinctive stressors faced by urban public school teachers. As such, a second aim of the present study was to add to our understanding of the factors that contribute to burnout among this unique population of educators. Finally, little is known about the relationship between compassion fatigue, burnout, and compassion satisfaction in any population; although existing research suggests that unaddressed symptoms of compassion fatigue may increase an individual's risk of burnout, whereas symptoms of compassion satisfaction may reduce burnout risk. Thus, a third goal the current study was to assess the relationship between compassion fatigue, burnout, and compassion satisfaction among teachers working in high-poverty urban public schools.

TABLE OF CONTENTS

LIST OF TABLES.....	iv
LIST OF FIGURES.....	v
I INTRODUCTION.....	1
Background of the Problem.....	2
School Reform: Increasing the Pressure on Educators.....	5
Statement of the Problem.....	7
Research Questions.....	11
Definitions of the Variables of Interest.....	11
Significance of the Study.....	14
Summary.....	18
II LITERATURE REVIEW.....	20
Compassion Fatigue: Defining the Construct.....	20
Differentiating Compassion Fatigue from Other Forms of Work-Related Traumatic Stress.....	22
The Compassion Stress and Fatigue Model.....	24
The Prevalence of Compassion Fatigue.....	26
Factors that Influence the Development of Compassion Fatigue in Educators.....	27
Secondary Traumatic Stress Exposure.....	28
Trauma History.....	29
Years of Experience.....	30
Time Management.....	31
Workload.....	33
Discipline and Motivation.....	33
Professional Distress.....	34
Professional Investment.....	35
Social Support.....	35
Burnout: Defining the Construct.....	37
Theoretical Models of Burnout.....	40
The Conservation of Resources (COR) Model of Burnout.....	41
The Job Demands – Resources Model of Burnout.....	43
The Prevalence of Teacher Burnout.....	46
Factors Associated with the Development of Teacher Burnout.....	47
Years of Experience.....	47
Traumatic History.....	48
Time Management.....	50
Workload.....	51
Discipline and Motivation.....	51
Professional Distress.....	52
Professional Investment.....	53
Social Support.....	54
The Relationship between Compassion Fatigue and Burnout.....	55

	Compassion Satisfaction and the Development of Compassion Fatigue and Burnout.....	58
	Summary.....	61
III	METHODS.....	64
	Population of Interest.....	64
	Participants.....	65
	Research Instruments.....	66
	Professional Quality of Life Scale - Version 5 (ProQOL 5).....	66
	Teacher Stress Inventory (TSI).....	68
	Social Provisions Scale (SPS).....	71
	Demographic Questionnaire.....	73
	Study Design.....	73
	Statistical Analyses	74
	Power Analyses	76
	Procedure	77
	Summary.....	79
IV	RESULTS.....	81
	Statement of Design.....	81
	Data Screening.....	82
	Descriptive Statistics.....	83
	Secondary Traumatic Stress Exposure.....	86
	Primary Trauma.....	86
	Professional Quality of Life Scale – Version 5 (ProQOL 5)	87
	The Teacher Stress Inventory.....	87
	Social Support.....	88
	Hypothesis Testing.....	88
	Hypothesis I.....	88
	Hypothesis II.....	90
	Hypothesis III.....	93
	Hypothesis IV.....	97
	Hypothesis V.....	99
	Summary.....	102
V	DISCUSSION.....	104
	Interpretation of Findings.....	104
	Prevalence of Compassion Fatigue, Compassion Satisfaction, and Burnout.....	104
	The Relationship Between Social Support, Compassion Fatigue, Compassion Satisfaction, and Burnout.....	108
	Predictors of Compassion Fatigue in High-Poverty Urban Public School Teachers.....	110
	Predictors of Burnout in High Poverty Urban Public School Teachers.....	114
	The Role of Compassion Fatigue and Compassion Satisfaction in	

Burnout.....	118
Limitations.....	121
Clinical Implications.....	122
Recommendations for Future Research.....	124
References.....	127
Appendix A (Letter to Participants).....	155
Appendix B (Demographic Questionnaire).....	159

LIST OF TABLES

1	Sample Demographic Characteristics.....	84
2	Means and Standard Deviations for Burnout, Compassion Fatigue, and Compassion Satisfaction	87
3	Means and Standard Deviations for Teacher Stress.....	88
4	Intercorrelations between Social Support, Compassion Fatigue, Compassion Satisfaction, and Burnout.....	90
5	Pearson's Correlations between Study Variables.....	95
6	Summary of Standard Regression Analysis Predicting Compassion Fatigue.....	96
7	Summary of Standard Regression Analysis Predicting Burnout....	98
8	Summary of Hierarchical Regression Analysis Predicting Burnout.....	100

LIST OF FIGURES

1	Scatterplot depicting the relationship between compassion fatigue and social support.....	91
2	Scatterplot depicting the relationship between burnout and social support.....	92
3	Scatterplot depicting the relationship between compassion satisfaction and social support.....	93

CHAPTER I

Introduction

Teaching has long been recognized as a stressful profession, even in the most optimal circumstances (Borg, Riding, & Falzon, 1991). But for educators employed in high-poverty urban public school districts, the working environment is typically far from ideal. In the words of Dr. Martin Haberman, a prominent researcher in the field of teacher education, teaching in poor city schools is “. . . an extraordinary life experience - a volatile, highly charged, emotionally draining, physically exhausting experience for even the most competent, experienced teacher” (1995, p.1). The existing research on work-related stress in educators has focused on burnout, which is considered a psychological response associated with prolonged exposure to organizational stressors (Abel & Sewell, 1999; Brissie, Hoover-Dempsey, & Bassler, 1988; Griffith, Steptoe, & Cropley, 1999; Hock, 1988; Kokkinos, 2007; Malanowski & Wood, 1984; Schwab, Jackson, & Schuler, 1986; Tonder & Williams, 2009). However, although numerous studies have found that children attending low-income urban schools are frequently exposed to trauma related to family and community violence (Bell, 1991; DuRant, Pendergrast, & Cadenhead, 1994; Fitzpatrick & Boldizar, 1993; Osofsky, 2003; Shakoor & Chalmers, 1991; Uehara, 1996), few studies have examined the impact that working with traumatized children may have on the lives of inner-city public school teachers.

As such, the primary purpose of the current study was to examine the critical issue of compassion fatigue, also known as secondary traumatic stress disorder, as it relates to teachers working in low-income urban public schools. This study also explored the prevalence and

correlates of burnout, and investigated the relationship between compassion fatigue, burnout, and compassion satisfaction in this population of educators.

Background of the Problem

At the time of its conception, the public educational system within the United States was envisioned as a means of achieving equality and social justice for all. As stated by Horace Mann, a passionate advocate for free public schools, “education... beyond all other devices of human origin, is a great equalizer of the conditions of men” (1868, p. 669). Sadly, the reality of our public school system has fallen far short of this ideal. Of the 12,000 schools that were designated as either “failing” or “in need of improvement” under the No Child Left Behind Act (NCLB) of 2001 (NCLB, 2002), the vast majority were located in high-poverty urban areas that primarily serve African American and Latino students (Calkins, Guenther, Belfiore, & Lash, 2007). The socioeconomic disparities between these urban schools and their suburban counterparts are stark reflections of the inequities that persist in our society.

Low-income city school environments offer unique and significant challenges to teaching and learning. Public schools located in low-income urban neighborhoods have up to ten times less funding than schools located in affluent suburban areas (Kozol, 2005), and many are overcrowded, understaffed, and lacking in textbooks and other basic classroom materials (Darling-Hammond & Friedlaender, 2008; Oakes, 2004). The school buildings are often in a state of disrepair; broken windows, leaks, and sewage problems are not uncommon (Kozol, 2005). Safety is also a serious issue in city schools. Students in urban public schools report higher rates of victimization and theft than students in rural or suburban areas (U.S. Department

of Education, 2007). Similarly, teachers working in urban public school systems are five times more likely to be threatened with violence, and four times more likely to be physically attacked, than teachers in wealthier or less populated schools (U.S. Department of Education, 2007)

For children living in high-poverty city neighborhoods, numerous risk factors outside of the school environment also pose significant barriers to their ability to focus on learning. Of these issues, exposure to community violence, defined as “the frequent and continual exposure to the use of guns, knives, and drugs, and random violence” (Osofsky, 1995, p. 782), may be the most widespread. It is estimated that 44% to 84% of school-aged children living in inner-city neighborhoods have been the direct victims of community violence (Bell, 1991; DuRant et al., 1994; Fitzpatrick & Boldizar, 1993; Osofsky, 2003; Shakoor & Chalmers, 1991; Uehara, 1996). The research further indicates that over 75% of school aged children living in poor urban areas have witnessed a stabbing, shooting, or robbery (Bell, 1991; Bell & Jenkins, 1993; Berman, Kurtines, Silverman, & Serafini, 1996; Durant et al., 1994; Fitzpatrick & Boldizar, 1993; Osofsky, 1993; Shakoor & Chalmers, 1991), and an estimated 40% have witnessed a murder (Bell & Jenkins, 1993; Berman et al., 1996; Fitzpatrick & Boldizar, 1993). Approximately half of these victims were known personally by the children who observed the violence (Bell & Jenkins, 1993).

Community violence exposure can have a potentially disruptive impact on many facets of a child’s life. For example, children who are exposed to community violence are at significant risk for the development of Post-Traumatic Stress Disorder (PTSD), an anxiety disorder that can occur after an individual experiences or observes a life-threatening or violent event (Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Fitzpatrick & Boldizar, 2003). In a study of children who

had experienced community violence, Fitzpatrick and Boldizar (2003) found that 27% of the children met the full diagnostic criteria for PTSD, and 82% endorsed some PTSD symptoms, such as intrusive cognitions. Additional symptoms of PTSD in children include feelings of anger, helplessness, and fear; agitated, disorganized, or avoidant behavior; increased startle response, poor concentration, nightmares, and insomnia (De Bellis, Hooper, Woolley, & Shenk, 2009). Among children who have been exposed to community violence, symptoms of PTSD often coexist with other forms of psychopathology (Mazza & Reynolds, 1999; Saigh, Yasik, Oberfield, Halamandaris, & McHugh, 2002). For example, Mazza and Reynolds (1999) found that children living in the inner city who met criteria for PTSD reported more depressive symptoms and suicidal ideation than children living in the same neighborhood who did not have PTSD.

In addition to PTSD, community violence exposure has been linked to a wide range of emotional, behavioral, interpersonal, and academic problems in urban youth. Emotionally, children who have been exposed to violence in their own neighborhoods are more likely to exhibit symptoms of anxiety, depression, and low self-esteem than their non-exposed peers (Gorman-Smith & Tolan, 1998; Lynch & Cicchetti, 1998). Directly experiencing or witnessing violence in the community is also linked to increases in aggressive and violent behavior (DuRant et al., 1994; Gorman-Smith & Tolan, 1998) and to substance abuse among inner-city youth (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997). In terms of interpersonal functioning, community violence exposure is associated with problems with peer relationships (Scarpa, Fikretoglu, Bowser, Hurley, Pappert, Romero, et al., 2002), such as bullying and fighting (Schwartz & Proctor, 2000). Academically, community violence exposure appears to have a generally negative impact on children's levels of engagement and motivation in school (Lynch &

Cicchetti, 1998), and has been correlated with lower IQ scores and impairments in reading ability (Delaney-Black, Covington, Ondersma, Nordstrom-Klee, Templin, Ager, et al., 2002).

School Reform: Increasing the Pressure on Educators

The No Child Left Behind Act (NCLB) was passed in 2001 in an effort to address school inequity and to close the achievement gap between poor, minority, and special needs students and their wealthier, predominately white counterparts (Darling-Hammond, 2007). The goal of NCLB is admirable, and by highlighting the wide disparities in students' academic resources and attainment, the bill succeeded in bringing the subject of educational inequality onto the national stage (Darling-Hammond, 2007). However, NCLB is grounded in several problematic assumptions that have negatively impacted its implementation. First, the legislation does not address the fundamental problems of racism and poverty that underlie educational inequity, but rather presumes that schools alone have the power to eliminate the achievement gap (Darling-Hammond, 2007). As such, schools are held solely responsible when their students' average standardized test scores do not reach the predetermined state standard of proficiency, known as Adequate Yearly Progress (AYP). Because NCLB establishes one performance standard for all students, high-poverty schools with lower-performing students are much less likely to make AYP than wealthier schools with higher-performing students (Sunderman, Tracey, Kim, & Orfield, 2004). These schools, predominately located in urban areas, are labeled as "failures" or "in need of improvement" despite the serious systemic and environmental issues that may be constraining their students' ability to perform well on the state tests (Darling-Hammond, 2007). For example, urban schools educate the highest percentage of students with limited English

proficiency (LEP), who may have particular difficulty reaching proficiency on standardized academic assessments (Batt, Kim, & Sunderman, 2005).

The situation has been further complicated by NCLB's efforts to reduce the amount of children referred for special education by requiring general education teachers to provide classroom-based interventions to children suspected of having learning disabilities – an approach called Response to Intervention (RTI) (Klinger & Edwards, 2007). While RTI aims to positively impact the lives of children of color, who have historically been overrepresented in special education programs (Klinger & Edwards, 2007), the negative ramifications associated with AYP make vulnerable students a liability for teachers. Educators across the county have reported the use of exclusionary practices to retain, suspend, or expel struggling students with the goal of increasing overall test scores (Darling-Hammond, 2007). Secondly, instead of investing resources that would make the goals of the bill more attainable, NCLB utilizes threats and punitive consequences as the primary vehicle for change (Darling-Hammond, 2007). Urban schools that fail to meet AYP for two years in a row must use their scarce resources to implement extended services, such as privately funded after-school programs, which further drain funds from core educational programs (Darling-Hammond, 2007). Massive state budget cuts have further diminished the educational resources available to public schools, leading to increased employee layoffs and reducing the opportunities for “failing” schools to meet requirements (Sunderman & Orfield, 2008). If a school fails AYP for three years or more, they face “corrective action” or “restructuring,” which can include loss of funding, removal of staff, conversion into a charter school, or state takeover (Mintrop & Trujillo, 2005).

NCLB has fundamentally altered the landscape of teaching in urban schools. Out of

necessity, teachers are shifting focus away from subjects that are not covered in the standardized tests, and are dramatically increasing the amount of time they spend teaching in preparation for state assessments (Hagge & Waltman, 2007; Sunderman et al., 2004). Not surprisingly, teachers are reporting a reduced sense of control and empowerment in their work (Hagge & Waltman, 2007). In addition, the climate of fear and shame created by NCLB sanctions has added to low-income urban school teachers' already high level of stress (Daly & Chrispeels, 2005), and has been strongly associated with lowered morale and a perception of decreased public regard for the teaching profession (Hagge & Waltman, 2007).

Statement of the Problem

In their work with students, teachers employed in high-poverty urban schools frequently act as frontline trauma workers (Chang & Davis, 2009; Kees & Lashwood, 1996). Issues related to community violence, child abuse, and poverty are commonplace in the lives of these teachers, who make more official reports of child maltreatment than any other population of service providers (VanBergeijk & Sarmiento, 2006). There is an extensive body of literature addressing the valuable role that teachers play in the lives of low-income minority students and students who have experienced trauma; for example, supportive relationships with teachers have been shown to increase academic engagement and achievement, to improve emotional and behavioral functioning, and to promote resiliency (Brewster & Bowen, 2004; Klem & Cornell, 2004; O'Donnell, Schwab-Stone, & Mueed, 2002). However, far less is known about the impact that student-teacher relationships may have on educators (Chang & Davis, 2009). Although there are many potentially satisfying aspects of working closely with children who have experienced

trauma, there are also possible risks. Foremost among these “costs of caring” is compassion fatigue (Figley, 1995).

Compassion fatigue, also known as secondary traumatic stress disorder (STSD), is defined as “a state of tension and preoccupation with the individual or cumulative trauma” experienced by the people that one seeks to help (Figley, 2006, p. 7). Research has indicated that up to 50% of individuals who work with the traumatized exhibit clinical levels of compassion fatigue symptoms; these rates appear to be particularly high among those who work with traumatized children (Conrad & Kellar-Guenther, 2006). The symptoms of compassion fatigue can develop after one significant exposure to the trauma of another person, and may emerge without warning (Figley, 2005). As with PTSD, these symptoms include intrusion, avoidance, and hypervigilance (Gentry, Baranowsky, & Dunning, 2002). For example, teachers with compassion fatigue may experience intrusive cognitions or images related to a student’s traumatic experience, and may attempt to avoid reminders of the student and their trauma. In addition, teachers with compassion fatigue may exhibit symptoms of hyperarousal, such as sleep disturbances, difficulty concentrating, heightened startle response, and increased agitation or irritability (Figley, 1995). These trauma-related symptoms are disruptive, and can combine to create a state of emotional, cognitive, physical, and spiritual distress in individuals with compassion fatigue (Gentry et al., 2002). Unaddressed compassion fatigue may also make individuals more vulnerable to the development of other negative psychological states, such as burnout (Bell, Kulkarni, & Dalton, 2003; Maytum, Bielski-Heiman, & Garwick, 2004). However, the syndrome has proven to be highly treatable if it is recognized and acknowledged, and does not usually necessitate that an individual leave their work environment (Figley, 2002b).

Due to their chronic exposure to stressors related to the teaching environment, educators working in high-poverty city schools are also at risk of developing burnout (Maslach & Schaufeli, 1993). Unlike compassion fatigue, the stressors associated with teacher burnout do not typically result from contact with traumatic material, but rather from prolonged exposure to organizational issues such as time management, workload, and discipline and motivation in the classroom (Abel & Sewell, 1999; Brissie, Hoover-Dempsey, & Bassler, 1988; Griffith, Steptoe, & Cropley, 1999; Hock, 1988; Kokkinos, 2007; Malanowski & Wood, 1984; Tonder & Williams, 2009; Schwab, Jackson, & Schuler, 1986). The three hallmark symptoms of burnout are emotional exhaustion, depersonalization, and the erosion of one's sense of accomplishment (Maslach, Schaufeli, & Leiter, 2001). These core signs of burnout are typically accompanied by a cluster of additional symptoms, which may include depression, anxiety, lowered self-esteem, somatic complaints, absenteeism, and turnover intentions (Cordes & Dougherty, 1993; Kahill, 1988; Lee & Ashforth, 1990; Maslach, Schaufeli, & Leiter, 2001; Schwab, Jackson, & Schuler, 1986).

In contrast with compassion fatigue, symptoms of burnout are typically serious and difficult to treat, and may require that an individual leave their job or career (Figley, 2002b). In teachers, burnout is strongly associated with job attrition (Drake and Yadama, 1996; Geurts, Schaufeli & De Jonge, 1998; Kyriacou, 1989; Weisberg & Sagie, 1999), an increasingly virulent problem in urban public schools. Current research exploring educator burnout and job turnover indicates that 30% to 50% of teachers working in high-poverty urban areas will leave the profession within three to five years (Brunetti, 2001; Stanford, 2001). However, teachers who do remain in their positions despite unresolved symptoms of burnout may have an even more

negative impact on their students (Hock, 1988). For example, teachers who are experiencing burnout may behave in a callous and detached manner, causing them to become insensitive to their students' needs (Tatar & Yahav, 1999).

Despite the many stressors faced by urban public school educators, working closely with children who have experienced trauma may also have positive effects on the psychological well-being of teachers. Compassion satisfaction, the pleasure one derives from helping others, is typically higher among educators than among other care-giving professionals, such as mental and physical health workers (Stamm, 2010). Compassion satisfaction is associated with self-efficacy, a sense of invigoration, and the belief that one can make a positive difference in the world (Stamm, 2002).

Although compassion fatigue, burnout, and compassion satisfaction are distinctly different syndromes that each have a unique impact on a professional's well-being (Adams, Boscarino, & Figley, 2006; Jenkins & Baird, 2002; Salston & Figley, 2003), there is compelling evidence of an association between the conditions. For example, in the early stages of the research on secondary traumatic stress, McCann and Pearlman (1990) theorized that burnout was the final result of ongoing traumatic exposure. While subsequent studies have indicated that exposure to primary or secondary trauma is not a prerequisite for burnout (Perron & Hiltz, 2006), studies of work-related stress in social workers and nurses suggest that unaddressed compassion fatigue may heighten the risk of burnout over time (Bell et al., 2003; Maytum et al., 2004). In contrast, research indicates that compassion satisfaction and burnout rarely coexist, and that compassion satisfaction may be a protective factor in the development of burnout (Stamm, 2002; Stamm, 2010). More empirical research is needed to establish the extent to which compassion

fatigue and compassion satisfaction contribute to the onset of burnout (Bell et al., 2003; Stamm, 2010).

Research Questions

The following are the specific questions that were examined in the present study:

1. What is the prevalence of compassion fatigue, burnout, and compassion satisfaction among teachers working in urban public schools?
2. What are the relationships between perceived social support, compassion fatigue, burnout, and compassion satisfaction in teachers working in urban public schools?
3. What are the demographic variables, traumatic stress factors (i.e., personal trauma history and secondary traumatic stress exposure), and occupational stress factors (i.e., workload, time management, discipline and motivation, professional distress, and professional investment) that predict compassion fatigue in teachers working in urban public schools?
4. What are the demographic variables, traumatic stress factors, and occupational stress factors that predict burnout in teachers working in urban public schools?
5. When controlling for demographics, traumatic stress, and occupational stress, do compassion fatigue and compassion satisfaction predict burnout among teachers working in urban public schools?

Definitions of Variables of Interest

Burnout: In the current study, burnout was operationally defined as the feelings of hopelessness, cynicism, and inefficacy that emerge gradually in response to excessive job

demands (Maslach, 1982; Stamm, 2010). Risk of burnout was assessed using the Burnout scale of the Professional Quality of Life Scale – Version 5 (ProQOL 5; Stamm, 2010). A high risk of burnout was indicated by scores above 26, the 75th %ile, and low burnout risk was indicated by scores below 15, the 25th %ile, on the Burnout scale of the ProQOL.

Compassion fatigue: Compassion fatigue was defined in the present study as “the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other” (Figley, 2005, p. 7), characterized by “a state of tension and preoccupation with the individual or cumulative trauma” experienced by the people that one seeks to help (Figley, 2005, p. 7). Symptoms of compassion fatigue mirror those of PTSD, and include intrusion, avoidance, and hypervigilance (Gentry, Baranowsky, & Dunning, 2002). In the current study, compassion fatigue was measured using the Secondary Traumatic Stress scale of the ProQOL. A high risk of compassion fatigue was indicated by scores above 17, the 75th %ile, on the Secondary Traumatic Stress subscale. Scores below 7, the 25th %ile, were indicative of low compassion fatigue risk.

Compassion satisfaction: In the present study, compassion satisfaction was defined as the sense of achievement in one’s ability to help others (Stamm, 2010). This variable was measured using the Compassion Satisfaction scale of the ProQOL. A high potential for compassion satisfaction was specified by scores above 42, the 75th %ile, on the Compassion Satisfaction subscale of the ProQOL. A low potential for compassion satisfaction was denoted by scores below 32, or the 25th percentile.

Discipline and motivation: Discipline and motivation were operationally defined in the present study as a single variable relating to a teacher’s perception of his or her ability to manage

student behavior in the classroom. This variable was measured using the Discipline and Motivation subscale of the Teacher Stress Inventory (TSI; Fimian, 1987).

Professional distress: Professional distress was operationally defined within the present study as a teacher's perception of his or her promotion opportunities, status, respect, salary, and recognition for good work (Fimian, 1987). This variable was measured using the Professional Distress subscale of the TSI (Fimian, 1987).

Professional investment: Within the current study, professional investment was operationalized as a cluster of factors that pertain to a teacher's perception of his or her role within the school system. Specifically, a teacher's perception of his or her control over decisions made about classroom and school factors, ability to air personal opinions, level of emotional and intellectual stimulation, and opportunities for professional improvement comprise professional investment (Fimian, 1987). This variable was assessed using the Professional Distress subscale of the TSI (Fimian, 1987).

Secondary traumatic stress exposure: Secondary traumatic stress exposure was operationally defined as the experience of learning about or witnessing "an event that involves death, injury, or other threats to the physical integrity of another person" (American Psychiatric Association [APA], 2000, p. 424). This variable was assessed with two items on a demographic questionnaire.

Perceived social support: Within the current study, perceived social support was operationally defined as one's subjective assessment of "the availability of helping relationships and the quality of those relationships" (Leavy, 1983, p. 5). This variable was measured using the total score on the Social Provisions Scale (SPS; Cutrona & Russell, 1987).

Race/ethnicity: Race and ethnicity are distinct yet often overlapping constructs that are used to describe collective identities (Cornell & Hartmann, 2007). Race refers to a group that is self-defined or defined by others as sharing physical characteristics that are viewed as inherent, and ethnicity refers to a group that is socially defined on the basis of a shared culture (Cornell & Hartmann, 2007). In the current study, the participants' race and ethnicity were measured using an item on a demographic questionnaire.

Time management: Within the current study, time management was defined as a teacher's perception of his or her ability to achieve a work-life balance, and to accomplish everything that needs to be done during the day (Fimian, 1987). This variable was assessed using the Time Management subscale of the TSI.

Trauma history: Trauma history is operationally defined as an individual's personal experience of an event that involves actual or threatened death, serious injury, or other threat to physical integrity (APA, 2000), and was assessed with an item on the demographic questionnaire.

Workload: Workload was operationally defined as a teacher's perception of their level of administrative paperwork, class size, and overall work-related responsibilities. This variable was assessed using the Work-Related Stress subscale of the TSI (Fimian, 1987)

Years of experience: Years of experience was defined as the number of years a teacher has been employed as a teacher, and was assessed with an item on a demographic questionnaire.

Significance of the Study

This study aimed to bridge several of the gaps in the literature on work-related stress

responses among public school teachers working in high-poverty urban areas. Numerous researchers have found that individuals who work with traumatized children are most vulnerable to the development of compassion fatigue (Beaton & Murphy, 1995; Figley, 1995), and have further theorized that teachers are highly vulnerable to the development of the syndrome (Figley, 2005; Kees & Lashwood, 1996). However, there is a surprising dearth of empirical literature exploring the issue of compassion fatigue among teachers. As a result, little is known about what personal and environmental factors contribute to compassion fatigue in teachers, and what supportive services would help them to manage the consequences of working with traumatized youth. As such, the primary purpose of this study was to identify and examine characteristics of individual teachers and their surroundings that may be associated with the development of compassion fatigue.

Studies of compassion fatigue in other professional populations (i.e., social workers) have highlighted a number of demographic and environmental variables that appear to play a significant role in the development of the syndrome; this existing research has guided the direction of the present study. In terms of demographic and trauma exposure variables, years of work experience (Beaton & Murphy, 1995; Cunningham, 2003; Pearlman & MacLan, 1995) and personal trauma history (Cunningham, 2003; Nelson-Gardell & Harris, 2003; Pearlman & MacLan, 1995; Williams & Sommer, 1995) have been shown to influence the risk of compassion fatigue. With regard to environmental variables, workload, time management (Boscarino, Figley, & Adams, 2004; Creamer & Liddle, 2005; Meyers & Cornille, 2002), and the perception of control and autonomy in one's work (Stamm & Pearce, 1995) have been shown to be important factors in compassion fatigue development. In addition, the perception of social support has

consistently been identified as a protective resource in individuals who are at risk of developing compassion fatigue (Figley, 1995; Stamm & Pearce, 1995).

A second aim of the current study was to increase our understanding of the burnout phenomenon as it pertains to teachers working in inner-city public schools. Although there is a considerable body of research dedicated to burnout among public school teachers, relatively few studies have empirically examined the prevalence of burnout symptoms or the factors that may contribute to burnout in educators working in high-poverty urban school districts. The need for studies that focus on burnout this unique population of educators is crucial, as teachers working in urban public schools appear to be leaving the profession in far greater numbers than their suburban and rural counterparts (Brunetti, 2001; Stanford, 2001).

The existing research has emphasized several demographic and environmental factors that may impact the risk of developing burnout. As with compassion fatigue, years of experience has been shown to be associated with burnout risk, although there is little agreement in the literature regarding the nature of the relationship (Deighton, Gurriss, & Traue, 2007). Specifically, in some populations, work experience appears to protect individuals from burnout (Boscarino et al., 2004), whereas other studies have found that burnout symptoms increase with years of experience (Baird & Jenkins, 2004; Perron & Hiltz, 2006). It is important to clarify the impact that work experience may have on the burnout risk of educators, as such information will help to determine whether future interventions should be targeted towards more experienced teachers, less experienced teachers, or both. Past studies have also identified a number of environmental variables that correlate with burnout that will be included in the current study, such as workload (Malanowski & Wood, 1984), time management (Abel & Sewell, 1999),

professional investment (Fimian, 1987; Fimian & Fastenau, 1989; Hock, 1988; Lee & Ashforth, 1990), professional distress related to lack of recognition and advancement (Fimian, 1987; Fimian & Fastenau, 1989), and social support (Janssen, Schaufeli, and Houkes, 1999; Lee and Ashforth, 1990).

A final goal of the present study was to examine the relationships between compassion fatigue, burnout, and compassion satisfaction in urban public school teachers. Numerous researchers have highlighted the importance of exploring the complex associations between these variables, as the existing literature has yet to clearly delineate the nature of these relationships (Stamm, 2010). The current research adds to our understanding of the interactions between compassion fatigue, burnout, and compassion satisfaction among educators working in inner-city public school settings. Specifically, it was hypothesized that symptoms of compassion fatigue may be a contributing factor to burnout among urban public school educators, and that compassion satisfaction will be negatively associated with the risk of teacher burnout.

It is of note that several of the factors that were examined in the current study, including years of experience, workload, work-life balance, the perception of authority and control, and social support, were expected to contribute to compassion fatigue as well as to burnout. Some overlap in the contributing variables to each condition was anticipated, as both burnout and compassion fatigue are psychological responses that occur within the context of work-related stress (Jenkins & Baird, 2002). However, these proposed areas of overlap are not meant to suggest that burnout and compassion fatigue are the same phenomenon. As noted by previous researchers who explored the contribution of parallel factors to the development of secondary trauma and burnout, it was hypothesized that there would be significant differences in the

variance that each of the factors examined in the present study contribute to each of the outcome variables (Perron & Hiltz, 2006). In addition, it was theorized that burnout would not have an association with trauma-related variables, such as previous history of trauma and secondary traumatic stress exposure. These distinctions, where they occur, add to our understanding of the similarities, differences, and overall relationship between compassion fatigue and burnout.

In sum, this study aimed to improve our understanding of the issues of compassion fatigue and burnout among urban educators. Ultimately, it is hoped that an increased awareness of the factors that contribute to work-related stress among urban public school educators, and a greater knowledge of the relationships between compassion fatigue, burnout, and compassion satisfaction, will help to encourage the development of preventative measures and effective interventions for teachers.

Summary

Although many researchers have observed that urban public school teachers work closely with traumatized youth (Chang & Davis, 2009; Kees & Lashwood, 1996) and may be at risk of developing compassion fatigue (Figley, 2005; Kees & Lashwood, 1996; VanBergerjk & Sarmiento, 2006), there is an absence of empirical literature exploring compassion fatigue in this population. In contrast, a considerable body of research has been dedicated to the study of teacher burnout. Yet, significant gaps remain in our understanding of the factors that contribute to the high rates of burnout and attrition among teachers working in inner-city public schools. Further, while compassion fatigue and burnout are distinct psychological phenomena, it appears that unresolved symptoms of compassion fatigue may heighten the risk of burnout among those

who work with people who have experienced trauma (Bell, Kulkarni, & Dalton, 2003; Maytum et al., 2004). In addition, high levels of compassion satisfaction may help to prevent burnout among urban public school educators.

This study was guided by several goals. First, this research aimed to identify the prevalence of compassion fatigue, burnout, and compassion satisfaction among urban public school teachers. Second, the study endeavored to explore the relationship between social support, compassion fatigue, burnout, and compassion satisfaction in urban public school teachers. Third, this study examined the demographic, trauma-related, and environmental factors that may contribute to the risk of compassion fatigue and burnout among city educators. Fourth, a goal of this research was to investigate the role that compassion fatigue and compassion satisfaction may play in the development of burnout in educators working in inner-city public schools.

CHAPTER II

Literature Review

The concepts of compassion fatigue, compassion satisfaction, and burnout are highly relevant to educators, particularly those working in high-poverty urban contexts. These teachers are exposed to a wide range of job-related and secondary traumatic stressors, from a lack of resources to frequent interactions with traumatized children. In this chapter, the relevant literature related to compassion fatigue and burnout will be reviewed. An overview of each of the constructs will be provided, and theoretical models of each form of work-related stress will be discussed. In addition, literature addressing the personal (e.g., years of experience and trauma history) and environmental (e.g., time management, workload, discipline and motivation, professional distress, professional investment, and perceived social support) variables of interest will be explored in relation to the development of compassion fatigue and burnout in educators working in urban public schools. Lastly, the concept of compassion satisfaction will be addressed, and the research pertaining to the relationship between compassion satisfaction, compassion fatigue, and burnout will be presented.

Compassion Fatigue: Defining the Construct

Empathy, defined as “the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another” (Merriam-Webster, 2010), is commonly viewed as an essential component of the helping relationship (Figley & Nelson, 1989; Herman, 1997). Empathic engagement allows an individual to share the emotional

pain of others, and motivates a desire to help (Figley, 1995). However, the act of empathizing with those who have been traumatized also involves considerable risk to an individual's psychological development, identity, and worldview (Pearlman & Saakvitne, 1995). Compassion fatigue, or Secondary Traumatic Stress (STS), is a relatively new construct within the field of psychology that has been used to describe these "costs of caring" (Figley, 1995). Compassion fatigue was first defined by Figley (1995) as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other – the stress resulting from wanting to help a traumatized or suffering person" (p. 7). It is important to highlight that compassion fatigue is not conceptualized as a pathological response, but is viewed as a "natural, predictable, treatable, and preventable" reaction to working with traumatized individuals (Figley, 1999, p. 4).

The symptoms of compassion fatigue parallel those of Post-Traumatic Stress Disorder (PTSD), except that the traumatic stressor is experienced indirectly through empathic engagement with individuals who have been traumatized (Figley, 1995, 2002a). As in PTSD, symptoms of compassion fatigue are clustered into three overarching categories: reexperiencing the trauma, efforts to avoid reminders of the trauma, and a heightened level of arousal. An individual suffering from compassion fatigue may have intrusive recollections or dreams of the traumatized person or their traumatic event, and may experience psychological distress when exposed to internal or external cues that are reminders of the trauma. In an effort to manage these painful emotions and cognitions, he or she may consciously avoid thoughts, feelings, activities, places, or people that are associated with the traumatized individual or their traumatic event, and may feel detached or estranged from others. In addition, a person who is experiencing symptoms

of compassion fatigue may have difficulty falling or staying asleep, may be more angry and irritable than usual, and may exhibit an increased startle response (Figley, 2002a).

Differentiating Compassion Fatigue from Other Forms of Work-Related Traumatic Stress

Throughout the literature, “secondary traumatic stress” (STS) and “vicarious traumatization” (VT) often have been used interchangeably with compassion fatigue to describe the effects of work-related traumatic stress (Jenkins & Baird, 2002; Sprang, Clark, & Whitt-Woosley, 2007). In fact, compassion fatigue and STS are recognized as synonymous, with compassion fatigue viewed as a more “user-friendly” and less stigmatizing term for STS (Figley, 1995, 2002a). Compassion fatigue and VT also have much in common; specifically, both constructs identify empathic engagement as the conduit for trauma between two or more persons, and both envision secondary traumatic stress reactions as the natural and non-pathological consequences of working with people who have experienced a traumatic event (Figley, 1995, 2002a; Pearlman & MacLan, 1995). However, despite the overlap between compassion fatigue and VT, there are significant theoretical and conceptual differences between the constructs that must be noted.

A primary difference between compassion fatigue and VT relates to the emphasis the latter places on theory. Specifically, VT is grounded in McCann and Pearlman’s (1990) Constructivist Self-Development Theory (CSDT), which is rooted in the psychoanalytic approaches of object relations, self-psychology, and social cognition. According to CSDT, exposure to trauma impacts fundamental aspects of the self. For example, it is theorized that self-capacities, such one’s ability to regulate affect, and cognitive schemas, which shape the ways in

which one sees themselves, others, and the world, are negatively affected by trauma exposure (McCann & Pearlman, 1990). While tangible traumatic stress symptoms are recognized as an aspect of VT, the emphasis is placed on self-perceived changes in cognition. In contrast, compassion fatigue focuses on symptomatology over theory, and highlights observable signs of traumatic stress rather than internal shifts in one's thinking (Jenkins & Baird, 2002).

A second important distinction between compassion fatigue and VT pertains to the populations that are identified within each construct as being at risk (Jenkins & Baird, 2002). VT is explicitly conceptualized as a traumatic stress reaction that occurs within the context of a therapeutic relationship. As such, mental health professionals who work with trauma survivors are viewed as the sole population vulnerable to the development of VT (Jenkins & Baird, 2002; Pearlman & Maclan, 1995). In contrast, any person who is engaged in an empathic, supportive relationship with a traumatized individual is theorized as being at risk for the development of compassion fatigue (Figley, 1995). Although much of the existing research on compassion fatigue has focused on mental health workers (Adams, Boscarino, & Figley, 2006; Bride, Radney, & Figley, 2007; Bride, Robinson, Yegidis, & Figley, 2003; Figley, 2002a; Ortlepp & Friedman, 2002), the syndrome has also been studied in nurses (Abendroth & Flannery, 2006; Frank & Karioth, 2006), genetic counselors (Benoit, Veach, & LeRoy, 2007), police officers (Violanti & Gehrke, 2004), and clergy (Roberts, Flannelly, Weaver, & Figley, 2003).

A third difference between the constructs relates to the onset and resolution of symptoms. VT is theorized to be a "cumulative," "permanent," yet "modifiable" response to repeated contact with traumatic material (Rosenbloom, Pratt, & Pearlman, 1995), whereas compassion fatigue is viewed as having a potentially sudden onset and fast rate of recovery (Figley, 1995). In

addition, Figley (1995) has argued that one significant exposure to another's trauma may be enough to trigger the onset of compassion fatigue.

After thoroughly reviewing the literature, it is this author's opinion that VT is the appropriate term to use when examining the cognitive changes that may occur in a mental health professional as a result of providing trauma therapy, whereas compassion fatigue is the optimal term to use when exploring the broader psychological effects that may occur when an individual engages in an empathic, helping relationship with a traumatized person. Compassion fatigue may describe events that occur within the context of a therapeutic relationship, but may also be applied to caretakers and other professionals outside of the mental health field (Figley, 2002a). As such, in the current study, compassion fatigue is the most suitable descriptor for secondary traumatic stress reactions in educators. Nonetheless, because the terms have frequently been conflated in the literature, it is crucial to take account of VT studies when reviewing the existing research on compassion fatigue (Jenkins & Baird, 2002; Sprang et al., 2007).

The Compassion Stress and Fatigue Model

Figley's (1995, 2002a) etiological model of compassion fatigue proposes that eleven variables operate in conjunction to produce symptoms of secondary traumatic stress. The first component of the Compassion Stress and Fatigue model is exposure to the traumatized individual, which, in combination with empathic concern and empathic ability, leads to an empathic response. Figley (1995, 2002) defines empathic concern as the motivation to help those who are in need, and describes empathic ability as one's capacity for noticing and vicariously experiencing the pain of others. An empathic response is defined as the extent to which one

attempts to alleviate the pain of the traumatized person by projecting oneself into the sufferer's position. Figley (2002) points out that empathic responses are both risky and beneficial; they allow individuals to deeply understand and help those who are traumatized, but also involve the vicarious experience of powerful emotions, such as fear, anger, and sadness.

According to the model, the empathic understanding of a traumatized person's feelings leads to compassion stress, described as the "residue of emotional energy from the empathic response." (Figley, 2002, p. 1438). Figley (2002) asserts that, like any form of stress, compassion stress can have a negative impact on an individual's psychological and physiological health. However, two factors are included in the model that may moderate the relationship between the empathic response and compassion stress: satisfaction and disengagement. Satisfaction is equated with an individual's sense of achievement regarding his or her efforts to help a traumatized person. Figley (2002a) argues that a sense of satisfaction or achievement relies on an individual's ability to recognize his or her own limits and responsibilities. Likewise, disengagement is a form of self-care characterized by an individual's ability to "let go" of the emotions, cognitions, and experiences that may be associated with the traumatized person when they are not in that person's presence.

If compassion stress is not adequately buffered by an individual's sense of satisfaction and ability to disengage, it is theorized that compassion fatigue may occur (Figley, 2002a). Three additional factors are viewed as contributing to the likelihood of compassion fatigue: prolonged exposure, traumatic recollections, and life disruptions. Prolonged exposure is understood as the ongoing sense of responsibility for the care of a traumatized person. Traumatic recollections are memories that may trigger traumatic stress symptoms; these memories may be related to an

individual's personal experiences with trauma, or to an individual's previous involvement with other traumatized people. Finally, life disruptions are identified as stressful events, such as getting sick or moving, that would typically cause a tolerable level of distress, but that increase the chances of developing compassion fatigue when combined with the other variables in the model (Figley, 2002a).

Prevalence of Compassion Fatigue

In reviewing the literature, this researcher located only one prior study involving compassion fatigue in an educational setting. In an unpublished doctoral dissertation, Robinson (2005) examined compassion fatigue as an indicator of career engagement among 184 public school teachers, counselors, and administrators in Nova Scotia and West Virginia. Of this sample of educators, 33.15% were found to be at high risk of career over-engagement/compassion fatigue. Robinson's (2005) finding establishes a benchmark for compassion fatigue risk among educators. However, the homogeneity of the sample, which was predominately White, rural, and female, limits the generalizability of these findings to low-income urban public school teachers in the United States.

Among other helping professionals, the prevalence of compassion fatigue has been shown to vary widely. In Meadors, Lamson, Swanson, White, and Sira's (2009) study of 167 pediatric healthcare providers, only 7.3% of the total sample was observed to be at high risk of developing compassion fatigue. However, when the authors examined differences between professions, the risk of compassion fatigue was far higher among chaplains (82%), physicians (62.5%), and child-life specialists (61.5%) who had experienced the loss of patient within the last

month. A similar finding was uncovered by Sprang, Clark, and Whitt-Woosley (2007) in their study of traumatic stress responses among 1,121 rural mental health providers. In this research, 13% of the total sample was found to be at high risk of compassion fatigue. However, practitioners reported significantly higher rates of compassion fatigue with a greater caseload percentage of traumatized individuals, and specifically by psychiatrists who worked in public health settings with low-income patients (Sprang et al., 2007). High rates of compassion fatigue have also been detected among crisis counselors following the Oklahoma City Bombing (Wee & Myers, 2003), hospice nurses (Abendroth & Flannery, 2006), emergency nurses (Hooper, Craig, Janvrin, Wetsel, Reimels, & Anderson, 2010), and oncology nurses (Dominguez-Gomez & Rutledge, 2008). Additional research is required to determine the risk of compassion fatigue among educators in urban public schools.

Factors that Influence the Development of Compassion Fatigue in Educators

The research indicates that individuals who work with traumatized children are at a particularly high risk of compassion fatigue (Conrad & Kellar-Guenther, 2006; Meyers & Cornille, 2002). Considering the high rates of exposure to violence and other potentially traumatic events experienced by youth living in high-poverty urban areas, it is likely that teachers working in these environments interact with children who have been traumatized on a regular basis. As such, while there is a scarcity of research on compassion fatigue in educators, it is theorized that the personal and environmental factors that have found to influence the development of compassion fatigue among other professional groups will also play a significant role in the secondary traumatic stress reactions of teachers working in urban public schools. The

factors that have been selected from the research for inclusion in the current study include trauma-related variables (e.g., secondary traumatic stress exposure and personal trauma history), personal characteristics (e.g. years of experience), occupational stressors (e.g. time management, workload, discipline and motivation, professional distress, and professional investment), and resources (e.g. social support). What follows is a review of the relevant literature addressing the relationship between these variables and compassion fatigue.

Secondary Traumatic Stress Exposure

Compassion fatigue stems from empathic involvement with traumatized individuals; research indicates that the intensity and duration of this engagement is a strong predictor of compassion fatigue symptoms (Adams et al., 2006; Birck, 2001; Boscarino et al., 2004; Creamer & Liddle, 2005; Killian, 2008; Meadors et al., 2009; Meyers & Cornille, 2002; Sprang et al., 2007). For example, in Creamer and Liddle's (2005) study of compassion fatigue in disaster mental health workers following the terrorist attacks of September 11, 2001, the authors found that caseloads with higher percentages of traumatized clients and longer work assignments were associated with higher levels of secondary traumatic stress. Likewise, in Sprang and colleagues (2007) research on work-related stress responses among rural health providers, the caseload percentage of clients with PTSD predicted workers' levels of compassion fatigue. However, as the relationship between secondary traumatic stress exposure and compassion fatigue symptoms has yet to be explored in educators, more research is warranted to determine the extent to which work with traumatized children predicts secondary traumatic stress syndrome in high-poverty urban public school teachers.

Trauma History

The literature on compassion fatigue indicates that survivors of traumatic events are at an increased risk of developing secondary traumatic stress reactions, as their unresolved conflicts may be triggered by the traumatic experiences of others (Adams et al., 2006; Cunningham, 2003; Figley, 1995; Kassam-Adams, 1999; Nelson-Gardell & Harris, 2003; Pearlman & MacIain, 1995; Williams & Sommer, 1995). For instance, in a study of 166 child welfare workers, professionals who endorsed a history of sexual abuse, emotional abuse, or neglect were at a greater risk of compassion fatigue than their peers who did not report a trauma history (Nelson-Gardell & Harris, 2003). Likewise, in Adams and colleagues (2006) study of 236 social workers living and working in New York City following the 9/11 attacks, individuals reporting trauma histories were more likely to endorse symptoms of secondary trauma and overall psychological distress.

Although the influence of personal trauma history on secondary traumatic stress responses has rarely been examined in teachers, the existing literature suggests that previous traumatic experiences may play a role in the development of compassion fatigue in educators. For example, in research by Dworkin, Haney, Dworkin and Teleschow (1990), the authors found that teachers who had previously been victims of violence or harassment reported higher levels of overall stress than those who did not identify as victims. Similarly, in an unpublished doctoral dissertation, Robinson (2005) found that a history of personal trauma had a significant association with secondary traumatic stress scores among teachers, counselors, and administrators in Nova Scotia and West Virginia. However, these findings have limited generalizability to urban public school teachers due to the ethnic homogeneity and rural nature of the sample.

It is important to note that working with traumatized people may also have positive effects for those who have survived trauma (Schauben & Frazier, 1995; Herman, 1997). In a mixed-methods study of female counselors working with sexual violence survivors, Schauben and Frazier (1995) found no evidence of increased distress among therapists who were survivors of traumatic events. In addition, the authors reported that survivor-counselors indicated that they learned about themselves through their interactions with clients, and were better able to heal from their own victimization experiences. This finding echoes Herman's (1997) assertion that helping others is a vital part of the recovery process for some trauma survivors. For example, Herman states, "While there is no way to compensate for an atrocity, there is a way to transcend it, by making it a gift to others. The trauma is redeemed only when it becomes the source of a survivor mission" (1997, p. 207). As such, while working with the traumatized may act as a trigger for unresolved issues among survivors, it may also promote healing and insight. More research is needed to explore the relationship between compassion fatigue and trauma history in educators.

Years of Experience

Over the years, many studies have found that less experienced mental health workers generally report more psychological distress than their more experienced counterparts (Pearlman & MacLan, 1995). This vulnerability has been attributed to common characteristics of newer workers, such as an insecure professional identity and lack of status (Neumann & Gamble, 1995). These findings have led researchers to theorize that lack of experience is also associated with a greater risk of compassion fatigue (Neumann & Gamble, 1995). However, studies

exploring the relationship between a professional's years of experience in working with victims of trauma and the risk of developing compassion fatigue have produced contradictory results (Deighton, Gurriss, & Traue, 2007). While some studies have found a clear link between limited work experience and compassion fatigue (Cunningham, 2003; Way, Van Deuson, Martin, Applegate & Jandle, 2004), others have found no evidence of a relationship (Nelson-Gardell & Harris, 2003).

Additional research has suggested that years of experience may be a significant factor in the development of compassion fatigue, but only in combination with other variables. For example, in a study of 188 trauma therapists, Pearlman and MacIain (1995) found that less experienced therapists were demonstrating the highest rates of trauma-related psychological distress. However, subsequent analyses revealed that this finding was only salient among newer therapists who also had a history of personal trauma and were receiving little supervision. As such, the authors concluded that years of experience, in combination with trauma history and limited social support and guidance, was linked to compassion fatigue in less experienced therapists. More research is needed to explore the relationship between years of experience and compassion fatigue. A particular issue that will be addressed in the current study is whether work experience is a significant independent or joint predictor of compassion fatigue among public school educators working in an urban educational system.

Time Management

In the literature, time management – particularly one's ability to maintain a work-life balance – is typically presented as an essential self-care strategy in the prevention and

management of compassion fatigue (Cerney, 1995; Figley, 1999, 1995). For example, Cerney (1995) articulated that without an adequate work-life balance, individuals may lose their ability to maintain appropriate boundaries with the people they help, which subsequently results in psychological distress and compassion fatigue. Empirical research exploring the relationship between time management and the development of compassion fatigue has provided support for this viewpoint, demonstrating that individuals who spend more time at work are more likely to experience secondary traumatic stress than their counterparts who maintain a balance between their work and home lives (Boscarino et al., 2004; Creamer & Liddle, 2005; Killian, 2008; Meyers & Cornille, 2002).

A notable exception to these findings is found in Meldrum, King, and Spooner's (2002) study of 300 Australian case managers. Surprisingly, the authors discovered that time management was not related to compassion fatigue symptoms among the participants in the study. However, a significant limitation of Meldrum and colleagues (2002) research is the heterogeneity of their sample. The authors included a wide range of professionals (e.g., psychiatrists, psychologists, occupational therapists, psychiatric nurses, clinical nurse consultants, social workers, and welfare workers) under the umbrella term of "case managers," and it is possible that the participants may have had unequal exposure to traumatized individuals due to differences in their training and job responsibilities. Unfortunately, the authors did not assess the amount of secondary traumatic stress exposure among their participants; as such, it is not possible to determine whether the groups had equivalent levels of interaction with trauma survivors.

Workload

Workload is a broad concept that can be used to describe a wide range of job-related tasks, from the size and characteristics of one's caseload (or classroom) to the amount of job responsibilities that one is charged with (Fimian, 1987). The relationship between workload and compassion fatigue has been explored in the literature, with most studies focusing on the influence of caseload size and percentage of trauma survivors in a caseload on the development of compassion fatigue. Almost unanimously, the research has indicated that large caseloads and high percentages of trauma clients are associated with an increased risk of secondary traumatic stress responses (Baird & Jenkins, 2002; Bell, Kuklarni, & Dalton, 2003; Creamer & Liddle, 2005; Cunningham, 2003; Deighton, Burris, & Traue, 2007; Pearlman & MacIan, 1995; Salston & Figley, 2003; Sprang et al., 2007). In addition, research by Deighton and colleagues (2007) found that task burden, operationalized as administrative and other non-therapy tasks, was a significant predictor of compassion fatigue.

Discipline and Motivation

In the context of teaching, issues pertaining to discipline and motivation pertain to student behavior inside the classroom (Fimian, 1987). While the impact of student behavior on the development of secondary traumatic stress reactions in educators has not yet been empirically explored, research has suggested that repeated attempts to discipline and motivate students is a significant source of stress that may contribute to compassion fatigue (Chang & Davis, 2009;). For instance, in a study of 132 secondary school teachers in South Africa, Olivier and Venter (2003) utilized a questionnaire and the Teacher Stress Inventory (TSI;

Fimian, 1987) to determine that stress related to the discipline and motivation of students was significantly related to “job compassion fatigue” (Oliver & Venter, 2003, p. 189). However, the researchers did not use a reliable, validated measure of compassion fatigue, and as such it is not possible to know that the teachers’ symptoms were indicative of secondary traumatic stress. More research is needed to investigate the potential relationship between student behavior in the classroom and compassion fatigue in teachers.

Professional Distress

In teachers, professional distress relates to a perceived lack of respect, status, salary, recognition, promotion, and advancement opportunities (Fimian, 1987), and has been linked to high levels of overall stress in educators (Borg, Riding, & Falzon, 1991). In regard to compassion fatigue, Slattery and Goodman’s (2009) study of 148 domestic violence advocates found that workers were less likely to develop compassion fatigue if they worked in organizations that emphasized respect, shared power, and equal salary distribution among employees. Chrestman’s (1999) study of trauma therapists also found that workers reporting higher salaries and opportunities for additional training reported less avoidance, dissociation, and anxiety. Likewise, Perron and Hiltz’s (2006) study of burnout among 66 forensic interviewers of abused children found that organizational satisfaction was negatively associated with compassion fatigue. Additional research has indicated that organizations that maintain a respectful attitude for their workers are most effective in minimizing the negative impact of trauma work on their staff (Bell et al., 2003; Pearlman & Saakvitne, 1995). However, more studies must be conducted to further determine the impact of professional distress on the compassion fatigue of educators.

Professional Investment

Professional investment pertains to an individual's assessment of their level of control, autonomy, and decision-making capacity in his or her work (Fimian, 1987), and has been shown to play a significant role in the development of compassion fatigue (Regehr, Hemsworth, Leslie, Howe, & Chau, 2004; Rosenbloom, Pratt, & Pearlman, 1995; Stamm & Pearce, 1995) and PTSD (Herman, 1997). Rosenbloom and colleagues (1995) note that trauma work raises a helper's awareness of the many things that are outside of his or her control, which has the potential to undercut the helper's sense of personal power and self-efficacy. Stamm and Pearce (1995) further affirm that professionals who provide care to traumatized individuals are most likely to develop compassion fatigue when their competency and control are at risk. These assertions have found empirical support in the literature; for example, in a study of post-traumatic reactions in child welfare workers, Regehr and colleagues (2004) reported that individuals with a greater sense of control in their lives and in their work endorsed lower levels of psychological distress. Additional studies exploring the influence of perceived control and decision-making capacity on the development of compassion fatigue in educators are necessary.

Social Support

The construct of social support is one of the most commonly explored variables in studies of work-related stress, and has been found to play a vital protective role in the development of compassion fatigue (Figley, 1995; Ortlepp & Friedman, 2002; Sarason, Sarason, & Pierce, 1995; Schauben & Frazier, 1995; Stamm & Pearce, 1995). Social support has been conceptualized as a "condition resource" (Hobfoll & Shirom, 2000) that can increase a helper's sense of competency

and control (Stamm, 2002), provide a secure and respectful environment (Rosenbloom et al., 1995), offer emotional and instrumental support (Catherall, 1995), and help individuals to feel understood and accepted (Wee & Myers, 2003).

The literature indicates that virtually all sources of social support can be effective in preventing and managing compassion fatigue. For example, in Ortlepp and Friedman's (2002) study of 130 trauma workers, a decreased risk of secondary traumatic stress was associated with the participants' perception of support in their home environments, workplace, and most significantly, from colleagues. Stamm (2002) similarly highlighted the importance of colleague support in minimizing the negative effects of working with traumatized individuals, asserting that consulting with colleagues can "increase competency, offer opportunities for direct control, or enhance the professional's ability to understand and interpret feelings about the situation" (p. 181). In addition, Stamm (2002) and Rosenbloom and colleagues (1995) works have underscored the importance of social support from one's supervisor. Specifically, Rosenbloom and colleagues (1995) argued that supervisors can create an atmosphere that is characterized by respect and safety, and can encourage their supervisees to identify and explore the feelings that are roused as a result of working with traumatic material. Lastly, families have been identified as a potential source of social support for those at risk of developing compassion fatigue (Figley, 1989; Catherall, 1995). Figley (1989) found that families that are successful in providing social support tend to help by providing tangible resources, offering insights, correcting distortions, and supporting positive reframes of events.

Burnout: Defining the Construct

While the concept of burnout initially emerged in the psychological literature in the mid-1970s, the term had long been used as a metaphor to describe the effects of chronic drug abuse (Maslach & Schaufeli, 1993; Schaufeli, Leiter, & Maslach, 2009). In 1974, Freudenberger, a psychiatrist employed in an alternative community health care institution, was the first to use the term “burnout” to describe the pattern of mental exhaustion, loss of motivation, and reduced commitment that he observed among the employees in his workplace (Maslach & Schaufeli, 1993; Schaufeli, Leiter, & Maslach, 2009). Based on his observations, Freudenberger (1974, 1975) theorized that excessive work demands had the potential to drain the energy and resources of staff members, and proposed that over-commitment and over-dedication were the primary risk factors in job burnout.

At approximately the same time, Maslach – widely recognized as a pioneer in the field – began to comprehensively investigate the construct of burnout (Maslach & Schaufeli, 1993, Salston & Figley, 2003). Maslach and her colleagues observed, surveyed, and interviewed hundreds of employees across a number of professions, including day care workers (Maslach & Pines, 1977), mental health workers (Pines & Maslach, 1978), and other health professionals (Maslach & Jackson, 1981). Subsequently, Maslach and her colleagues (Maslach, 1982; Maslach & Jackson, 1981) defined burnout as a syndrome of emotional exhaustion, cynicism, and negative self-appraisal that develops in individuals who engage in “people-work” of some kind.

Of the three dimensions of burnout, the first – emotional exhaustion – has been the most reported and comprehensively analyzed (Schaufeli, Leiter, & Maslach, 2009). However, exhaustion alone does not capture the full spectrum of the burnout phenomenon; rather, it is

viewed as a trigger for a sequence of psychological events (Schaufeli, Leiter, & Maslach, 2009). Emotional exhaustion is defined as a depletion of one's energy and emotional resources, and a feeling that one has "nothing left to give" to others (Maslach & Schaufeli, 1993). It is hypothesized that the second component of burnout, depersonalization, is an attempt to cope with exhaustion by putting emotional distance between oneself and other people (Cordes & Dougherty, 1993; Maslach, Schaufeli, & Leiter, 2001). Depersonalization is characterized by the development of negative, callous, or cynical attitudes towards the individuals that one works with, and can also manifest as emotional detachment and social withdrawal ((Schaufeli, Leiter, & Maslach, 2009). The final component of burnout, reduced personal accomplishment, is characterized by a sense of inefficacy in one's work with others ((Schaufeli, Leiter, & Maslach, 2009). Theoretically, one's sense of accomplishment is thought to be eroded by chronic feelings of exhaustion and depersonalization (Maslach, Schaufeli, & Leiter, 2001). Maslach's multidimensional conceptualization of burnout continues to be the most commonly accepted definition of the construct (Cordes and Dougherty, 1993; Lee & Ashforth, 1990), and the three-factor model has been validated by numerous researchers (see Maslach & Jackson, 1981; Lee & Ashforth, 1990).

The consequences of burnout have the potential to extend far beyond the hallmark symptoms of emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. A wide range of negative personal, interpersonal, and professional outcomes have been associated with burnout (Cordes & Dougherty, 1993). Psychological repercussions of burnout include depression, anxiety, and lowered self-esteem (Cordes & Dougherty, 1993; Lee & Ashforth, 1990; Maslach, Schaufeli, & Leiter, 2001). The considerable overlap between

symptoms of depression and burnout initially raised questions regarding the discriminant validity of burnout (Schaufeli & Buunk, 1996); however, studies have demonstrated that the two states are related but distinct (Bakker, Schaufeli, Demerouti, Janssen, Van der Hulst, & Brouwer, 2000). Specifically, research has shown that the dysphoric symptoms that are related to burnout are triggered by and often limited to the work context, whereas depression has a tendency to pervade all facets of an individual's life (Bakker et al., 2000; Maslach et al., 2001). However, unresolved burnout has been shown to be an antecedent of depression (Bakker et al., 2000). Burnout has also been linked to numerous somatic complaints, such as fatigue, headaches, gastrointestinal disturbances, and chest pains (Kahill, 1988; Maslach, Schaufeli, & Leiter, 2001).

Interpersonally, burnout is associated with the deterioration of personal and professional social relationships (Cordes & Dougherty, 1993). The decline in social functioning appears to be related to the depersonalization component of burnout, which can lead one to withdraw from others (Maslach & Jackson, 1981). This process of emotional detachment clearly has a negative impact on a worker's ability to interact effectively with clients (Maslach & Pines, 1977), and also appears to have a detrimental effect on relationships with colleagues (Maslach, Schaufeli, & Leiter, 2001), friends (Jackson & Maslach, 1981), and family (Burke & Deszca, 1986).

With regard to the relationship between burnout and job performance, burnout is associated with absenteeism, turnover intentions, and actual quitting behavior (Kahill, 1988; Maslach, Schaufeli, & Leiter, 2001). Among employees who remain at work, burnout is also linked to increased interpersonal conflicts, decreased job commitment, and lowered job satisfaction (Maslach et al., 2001).

Theoretical Models of Burnout

Although there is some conceptual variation in the literature regarding the exact nature of the relationship between job stress and burnout, burnout is generally viewed as a unique type of stress response, in which a pattern of strains (the three components of burnout: emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment) result from prolonged exposure to workplace stressors (Cordes & Dougherty, 1993). The origins of this understanding of the stress-burnout dynamic can be traced back to Selye (1976), who defined stress as biological changes that occur when an organism is confronted with aversive stimuli, or stressors. According to Selye, contact with stressors triggers an automatic process he termed the General Adaptation Syndrome (GAS), which is comprised of three stages: alarm, resistance, and exhaustion. The final phase, exhaustion, occurs when an organism has reached the limit of its adaptability; exposure to stressors beyond this point will result in some degree of damage. Several researchers have used Selye's theory as a means of conceptualizing burnout as a gradual, progressive response to job stress (e.g., Etzion, 1987). For example, Etzion credited Selye when proposing that workplace stressors "are the source of a slow and hidden process of psychological erosion" (p. 16).

While Selye's physiological model of stress has provided an important jumping-off point for the burnout research, it does not account for an important piece of the puzzle – the role of psychological factors in the perception and experience of work-related stress. Lazarus and Folkman's (1984) definition of stress as a "relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19) offered researchers a basis for exploring how the interaction between an

individual and their workplace influences the development of burnout. While a wide range of theoretical models of the burnout process addressing the person-environment relationship have been proposed, the most dominant and empirically validated are the Conservation of Resources (COR) and the Job Demands-Resources (JD-R) models of burnout.

The Conservation of Resources (COR) Model of Burnout

Two propositions are at the heart of Hobfoll and Freedy's (1993) conservation of resources approach to burnout: first, that people are primarily motivated to attain, preserve, and protect what they value (e.g. resources); and second, that stress, and eventually burnout, occurs when resources are threatened with loss, are inadequate to meet job demands, or are invested without the expected returns. Within this model, job demands are classified as losses because they require the investment of resources (Hobfoll & Shirom, 2000). The most frequently studied job demands include workload, time pressure, and role conflicts (Cordes & Dougherty, 1993; Lee & Ashforth, 1990; Maslach, Schaufeli, & Leiter, 2001). In contrast, resources are broadly defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions or energies" (Hobfoll, 1989, p. 516). Notably, social support is emphasized within the COR model as a "condition resource" that can increase access to other resources, such as a raise, a new job title, and a higher sense of self-efficacy (Hobfoll & Shirom, 2000).

In addition to the two central propositions mentioned above, the COR framework is guided by several assumptions about the relationship between resource loss and resource gain. First, within COR theory, it is presumed that "resource loss is disproportionately more salient

than resource gain” (Hobfoll, 2001, p. 343). As such, burnout is viewed as more likely to occur if job resources are perceived as threatened or lost, even if new resources are acquired. Hobfoll, Lilly, and Jackson (1992) tested this hypothesis in their examination of individuals’ reports of resource losses and gains over the course of a year. The authors found that greater resource loss was related to higher levels of psychological distress, whereas resource gain was generally unrelated to distress levels. However, an effect for gains was noted when controlling for losses. Secondly, it is assumed that loss compounds loss; that “those who lack strong resource pools are more likely to experience cycles of resource loss” (Hobfoll & Shirom, 2000, p. 3). For example, according to the COR model, a teacher who lacks sufficient social support is likely to experience additional losses, such as reduced access to supplies or lowered self-esteem. It is theorized that this escalating spiral of losses contributes to the development of burnout symptoms (Hobfoll & Shirom, 2000).

Several studies of burnout have used the COR framework, and the results have generally supported the notion that resource loss in the form of job demands has a stronger relationship with burnout than resource gain (Janssen, Schaufeli, & Houkes, 1999; Lee & Ashforth, 1996). However, the research also indicates that resources – particularly social support – may play a more prominent role in the prevention of burnout symptoms than is proposed by the COR model (Halbesleben, 2006; Janssen, Schaufeli, & Houkes, 1999; Lee & Ashforth, 1990). For example, in a meta-analytic test of the COR framework, Halbesleben (2006) found that social support was directly and negatively related to all three components of burnout. Within the context of the study, these results suggested that social support not only reduces the likelihood of burnout, but may be activated as a coping mechanism when burnout symptoms do occur.

The Job Demands – Resources Model of Burnout

The Job Demands – Resources (JD-R) model of burnout, developed by Demerouti, Bakker, Nachreiner, and Schaufeli (2001), simultaneously builds on and simplifies the propositions of the COR theory. The JD-R approach asserts that every occupation has its own risk and protective factors that influence the development of burnout, and proposes that these factors fall into two main categories: job demands and job resources (Demerouti et al., 2001). The authors define job demands as the “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort, and are therefore associated with certain physiological or psychological costs” (Demerouti et al., 2001, p. 501). The authors’ conceptualization of job resources is more explicitly related to the workplace than the definition used by Hobfoll and Freedy (1993) in the COR model. Specifically, Demerouti and her colleagues (2001) frame job resources as the aspects of the job that enable individuals to reach work goals, minimize the physiological and psychological repercussions of job demands, and encourage personal and professional growth. In addition, the authors argue that there are two distinct types of job resources: external (social and organizational) and internal (cognitive and behavioral). Demerouti and her colleagues (2001) emphasize the role of external resources in the development of burnout, and argue that internal resources are more challenging to measure, as there is little agreement in the literature as to which assets can be viewed as stable versus situational.

In contrast to the COR model, the JD-R framework emphasizes the positive and protective role that job resources play within the context of workplace stress (Demerouti et al., 2001). According to the JD-R theory, burnout can occur when job demands are high and job

resources are limited (Demerouti et al., 2001). Specifically, the authors posit that excessive job demands contribute to exhaustion and health problems, whereas the lack of resources leads to lowered motivation, cynicism, and reduced work engagement. However, when job resources are high, they may act as a buffer between job demands and burnout symptoms (Demerouti et al., 2001). This hypothesis echoes the findings of Kahn and Byosiere (1992), who asserted that characteristics of the working environment and individual worker may cushion the impact of stressors by changing the individual's perception of the stressor and diminishing the damaging effects of the stress response (Bakker, Demerouti, & Euwema, 2005).

Research exploring the JD-R theory of burnout has supported the basic propositions of the model (Bakker, Demerouti, & Verbeke, 2004; Hakanen, Bakker, & Schaufeli, 2006; Hakanen, Schaufeli, & Ahola, 2008). Of particular interest to this author are the findings pertaining to the moderating influence of job resources, especially social support, on the development of burnout. Several studies have sustained the notion that job resources can buffer the impact of stress from job demands on burnout (Bakker, Demerouti, & Euwema, 2005). For example, in their study of 1,012 employees of an institute for higher education, Bakker, Demerouti, and Euwema (2005) found that social support from colleagues and supervisors, performance feedback, and autonomy were capable of reducing the impact of work overload on exhaustion.

In addition, studies using the JD-R framework have enabled researchers to examine the positive contribution of job resources beyond their protective benefits in the development of burnout (Bakker, Schaufeli, Leiter, & Taris, 2008; Hakanen, Bakker, & Schaufeli, 2006; Hakanen, Schaufeli, & Ahola, 2008; Schaufeli & Bakker, 2004). For example, Schaufeli and

Bakker (2004) utilized the JD-R framework to argue that job demands and job resources are linked to two parallel psychological processes, one “energetic” and one “motivational.” The authors proposed that the energetic process is initiated by excessive job demands, which lead to burnout and health problems. In contrast, the motivational process is sparked by job resources, which foster engagement and organizational dedication. Hakanen, Bakker, and Schaufeli’s (2006) subsequent test of this model in a population of 2038 teachers revealed that the energetic and motivational processes were intertwined. Specifically, their results showed that job resources play a crucial dual role in the work experience of teachers: the availability of resources is associated with increased work engagement, but the absence of key resources in the presence of job demands is linked to burnout.

By highlighting the significance of the “motivational and enjoyable” aspects of work (Hakanen et al., 2006, p. 510), the JD-R framework allows for a strength-based approach to the study and treatment of burnout. However, Hakanen and colleagues (2006) caution that the powerful effects of job demands and resource loss should not be overshadowed; rather, research and interventions should consider both the “energetic” (e.g., job demands) and “motivational” (e.g., job resources) processes that contribute to the development of burnout.

The present study will primarily utilize the JD-R framework to explore the demands and resources associated with the development of work-related stress responses in educators. Specifically, it is theorized that high levels of workplace demands (e.g., occupational stress and secondary traumatic stress exposure) will be associated with the development of compassion fatigue and burnout. In addition, it is hypothesized that high levels of resources, specifically social support, will be associated with lower levels of compassion fatigue and burnout. Notably,

this author's conceptualization of perceived social support as a condition resource (e.g., a resource that increases access to other resources) is also informed by the COR theory. In addition, the theoretical approach of the current study was influenced by the work of Lazarus and Folkman (1984), who emphasized the interplay between the individual and their environment in the development of stress responses. As such, personal variables that have been found to be significantly related to compassion fatigue and burnout, such as years of experience and trauma history, are included in the current study in addition to the demand and resource variables.

The Prevalence of Teacher Burnout

In contrast with compassion fatigue, a considerable body of literature addressing teacher burnout has developed over the last three decades. Much of this research has been focused on identifying the demographic characteristics, occupational stressors, and consequences associated with teacher burnout; few studies have aimed to determine the overall prevalence of burnout among educators (van Horn, Schaufeli, & Enzman, 1999). When estimating burnout rates, researchers tend to cite the percentages of teachers who leave their place of employment or who leave the field of education entirely (e.g., Chang, 2009). The attrition rate among urban educators is, in fact, alarming; studies suggest that 30% to 50% of teachers working in high-poverty urban areas will leave the profession within three to five years (Brunetti, 2001; Stanford, 2001). However, while job turnover is a possible consequence of burnout (Burke, Greenglass, & Schwarzer, 1996), the two concepts are not synonymous, and many "burned out" teachers do stay in the profession (Olivier & Venter, 2003). As such, it seems probable that the burnout rate

among urban public school teachers is not fully represented by the percentage of educators who quit.

Notably, this author was able to locate only one prior study in which the Professional Quality of Life Questionnaire (ProQuol-V) was used to assess the incidence of career disengagement, operationalized as burnout, among educators. In Robinson's (2005) study of career engagement in a teaching population, the author found that 25% of the sample was disengaged, or experiencing burnout. However, considering the homogenous nature of her sample (e.g., rural, White), questions remain as to the prevalence of burnout among teachers in high-poverty urban public schools.

Factors Associated with the Development of Teacher Burnout

Years of Experience

Not everyone who faces stressors at work experiences burnout; rather, it appears that the interplay between the person and their environment contributes to the development of burnout symptoms (Maslach, Leiter, & Schaufeli, 2001). However, as noted by Maslach, Leiter, and Schaufeli (2001), burnout symptoms appear to have a stronger connection to environmental factors than to personal characteristics. Studies exploring the role of demographic factors, such as gender, ethnicity, marital status, age, and years of experience, in the development of burnout in teachers have yielded largely insignificant or contradictory results, with a few exceptions (Brissie, Hoover-Dempsey, & Bassler, 1988; Griffith, Steptoe, & Cropley, 1999; Lau, Yuen, & Chan, 2005; Ross, Almaier, & Russell, 1989; Schwab, Jackson, & Schuler, 1986;).

Among all of the demographic variables that have been studied, only years of experience

has been consistently linked to burnout (Maslach, Schaufeli, & Leiter, 2001). While some studies have found that a teacher's level of experience has no relationship to burnout (Raquepaw & Miller, 1989), the majority of researchers have found that younger (Griffith, Steptoe, & Cropley, 1999; Lau, Yuen, & Chan, 2005) and less experienced educators (Lau et al., 2005; Ross et al., 1989) are more vulnerable to the development of burnout symptoms.

However, the apparent association between years of experience and educator burnout warrants additional exploration. As noted by Maslach and colleagues (2001), the clustering of symptoms among younger workers raises questions about the supposedly gradual and progressive nature of burnout. Survival bias has been offered as part of the explanation; specifically, individuals who burn out early in their career are more likely to depart the profession, leaving behind "survivors" who exhibit few signs of burnout (Maslach et al., 2001). It is also possible that symptoms of compassion fatigue, which is theoretically more common in less experienced workers (Cunningham, 2003; Neumann & Gamble, 1995; Pearlman & Maclan, 1995), may have been attributed to the better-known concept of burnout (Figley, 2002a). Further research is needed to identify the relationship between years of experience and burnout in educators, and to determine whether less teaching experience is associated with a higher risk of burnout, compassion fatigue, neither, or both.

Trauma History

Trauma history is a rarely explored variable in the research on burnout. However, studies that have included burnout and compassion fatigue as dependent variables have often explored the impact of a helper's trauma history on both types of stress responses, with mixed results. For

example, in Boscarino and colleagues (2004) study of social workers in post-9/11 New York, the authors found that trauma history did not increase burnout risk among the participants. However, in this study, trauma history was also not a predictor of compassion fatigue – a finding that stands in opposition to the majority of the existing research on the subject (see Cunningham, 2003; Kassam-Adams, 1999; Nelson-Gardell & Harris, 2003; Pearlman & MacIlan, 1995; Williams & Sommer, 1995), including a subsequent study by the authors (Adams, Boscarino, & Figley, 2006). Boscarino and colleagues (2004) unusual results raises questions about the validity of the trauma measure used in this study, which was developed by the authors and included only eight items. In contrast, the Lifetime Events Checklist (LEC; Gray, Litz, Hsu, & Lombardo, 2004) and Traumatic Life Events Questionnaire (TLEQ; Kubany, Haynes, Leisen, Owens, Kaplan, Watson, & Burns, 2000) are both considered to be brief trauma instruments, assessing for exposure to 17 and 21 traumatic events, respectively. As Boscarino and colleagues (2004) questionnaire tapped into less than half of the traumatic experiences addressed by the commonly used LEC and TLEQ, it is possible that the authors did not obtain a complete picture of their participants' trauma history.

In contrast to Boscarino and colleagues (2004) work, Pearlman and MacIlan (1995) found that trauma history was a significant predictor of burnout in a study of 188 trauma therapists. However, Pearlman and MacIlan (1995) did not use an accepted burnout instrument in their study, but rather utilized a measure of general distress. As such, it is unclear whether the symptoms described by the participants met the established criteria for burnout, or were reflective of other psychological states. Additional research using valid measures of burnout is needed to clarify the relationship between the constructs.

Time Management

As mentioned in the previous section on compassion fatigue, time management refers in part to a teacher's ability to effectively maintain a balance between their personal and professional lives (Fimian, 1987). In the literature on occupational burnout, time management and workload constitute quantitative job demands, which refer to the degree to which a worker is expected to do too much in too little time (Maslach, Schaufeli, & Leiter, 2001). Quantitative job demands have been shown to be strongly predictive of burnout symptoms in teachers (Abel & Sewell, 2001; Hakanen, Bakker, & Schaufeli, 2006; Kokkinos, 2007; Schwab, Jackson, & Schuler, 1986). However, the research indicates that other environmental variables may influence the significance that teachers attribute to quantitative job demands.

For example, in a sample of 51 rural and 46 urban secondary school teachers, Abel and Sewell (2001) found that stress from time pressure was significantly associated with burnout symptoms in both groups. However, the authors also found that rural teachers were more likely than urban teachers to perceive time pressure as their primary source of stress, whereas urban teachers identified poor working conditions and staff relations as their primary stressors. This study had several limitations, including small sample size and a failure on the part of the authors to identify whether the teachers were working in public, private, or charter school settings; environmental factors that could potentially influence the risk of burnout. Nevertheless, the study provides important insight into the role of geographical location in teacher burnout, and suggests that urban school teachers may experience different sources of stress and burnout than their rural or suburban counterparts. Additional research is needed to determine the role of time management in the development of burnout in teachers working in urban public schools.

Workload

Workload, also considered to be a quantitative job demand in burnout studies, encompasses the issues of class size, teaching-related tasks, and administrative paperwork (Fimian, 1987), and has been strongly associated with burnout in educators (Griffith, Steptoe, & Cropley, 1999; Hakanen et al., 2006; Kokkinos, 2007; Malanowski & Wood, 1984; Tonder & Williams, 2009). With regard to class size, in an early study of teacher burnout, Malanowski and Wood (1984) found that teachers of larger classes tended to view their students more impersonally and exhibit greater degrees of depersonalization. Likewise, Darling-Hammond (2007) and Yost (2006) have identified class size as a primary factor in teacher burnout and attrition.

In addition, perceived work overload has also been clearly linked to occupational burnout in teachers (Borg, Riding, & Falzon, 1991; Hakanen et al., 2006). For instance, in a large sample ($n = 2038$) of Finnish teachers, Hakanen and colleagues (2006) discovered that workload was a fundamental predictor of burnout. However, as the teachers in the study were Finnish, predominately female (79%), and presumably Caucasian (race and ethnicity were not reported), the results of the study cannot be generalized to teachers working in urban public schools in the United States. More studies are needed to explore the impact of workload on the development of burnout in educators working in American inner-city public school systems.

Discipline and Motivation

Perceptions of student misbehavior and lack of motivation have been consistently been identified as significant sources of teacher stress (Abel & Sewell, 2001; Griffith, Steptoe, &

Cropley, 1999; Tonder & Williams, 2009) and burnout (Kokkinos, 2007; Hakanen et al., 2006; Manassero, Garcia-Buades, Torrens, Ramis, Vazquez, & Ferrer, 2006; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010). For example, in a study of 447 primary school teachers in Greece, Kokkinos (2007) discovered that managing student behavior was the strongest predictor of emotional exhaustion and depersonalization – two dimensions of burnout – in teachers. Similarly, recent research by Tsouloupas and colleagues (2010) found that student misbehavior had a significant direct effect on emotional exhaustion, which in turn predicted turnover intentions in a sample of 610 U.S. teachers. In terms of student motivation, Manassero and colleagues (2006) found that the perception of students' lack of motivation predicted stress and burnout in teachers who attributed poor motivation to factors that were outside of their control. However, the unique population sampled in Mannasero and colleagues (2006) study – 614 teachers in the Balaeric Islands in Spain – raises questions about the generalizability of the research findings. Additional studies investigating the impact of student discipline and motivation on the burnout risk of urban public school teachers are necessary.

Professional Distress

Professional distress in educators relates to a perceived lack of status, salary, recognition, promotion, or advancement opportunities (Fimian, 1987), and shows a strong association with stress and burnout (Abel & Sewell, 1999; Brissie, Hoover-Dempsey, & Bassler, 1988; Hock, 1988; van Horn, Schaufeli, & Enzmann, 1999). For example, in a study of 249 teachers conducted by van Horn and colleagues (1999), the researchers tested the hypothesis that burnout in teachers would be associated with a perceived lack of reciprocity on the part of students (e.g.,

student progress and gratitude) and the organization (e.g., promotion, recognition, and advancement). Significantly, van Horn and colleagues (1999) found that only the lack of organizational reciprocity was linked to burnout in educators. Similarly, in Hock's (1988) early study of burnout in 939 U.S. teachers, the author found that teachers who felt that they received recognition for a job well done were less likely to report stress and burnout.

Notably, in their study of burnout in rural and urban teachers in the U.S., Abel and Sewell (1999) found that inadequate salary, poor promotional prospects, and lack of recognition for good teaching predicted stress and burnout in all teachers. As previously discussed, these results also draw attention to the unique experience of urban teachers, as teachers working in city schools reported higher overall levels of professional distress than teachers working in rural areas. In their explanation of the results, the authors highlighted the poor working conditions that are often experienced by teachers in urban neighborhoods, such as overcrowded classroom, lack of educational resources, and limited funds. Further exploration of the relationship between professional distress and burnout in urban public school teachers is needed.

Professional Investment

A teacher's level of professional investment, as measured by the perception of his or her level of autonomy, control, and decision-making abilities, has been shown to be significantly related to burnout (Bakker, Demerouti, & Euwema, 2005; Hock, 1988; Lee & Ashforth, 1990; Schwab, Jackson, & Schuler, 1986). For example, Hock (1988) found that teachers who were given a voice in the decision-making process and encouraged to think creatively exhibited less burnout. These factors, in conjunction with adequate supplies and recognition for a job well

done, contributed to a perception of less overall stress. Schwab, Jackson, and Schuler (1986) also found that limited participation in decision-making, a lack of perceived freedom and autonomy, and inconsistent reward and punishment structures were associated with higher rates of burnout in a sample of 339 teachers. Likewise, in a population of 2,961 public school teachers working in a high-poverty district in Texas, Dworkin, Saha, and Hill (2003) found that teachers who perceived that their principals were non-authoritarian, supportive, and likely to involve them in decision-making were less likely to experience symptoms of burnout than teachers who perceived the opposite. Dworkin and colleagues (2003) findings are particularly relevant within the context of the current study, as the sample of teachers working in a low-income public school district is a close match to the present study's population of interest. However, as noted by Dworkin and colleagues (2003), the state of Texas uses a distinctive high-stakes educational testing system that may result in a unique constellation of stressors among teachers. Additional research is needed to determine whether Dworkin and colleagues (2003) results are typical of all teachers working in high-poverty urban public schools.

Social Support

Social support in the workplace appears to play a crucial role in burnout (Brissie et al., 1988; Janssen, Schaufeli, & Houkes, 1999; Lee & Ashforth, 1993; Schwab et al., 1986), and, as with compassion fatigue, it appears that all sources of social support have the potential to be beneficial. As predicted by the JD-R theory of burnout, empirical research has linked the perception of social support to lower levels of stress and burnout. For example, Fenlason and Beehr (1994) found that social support from supervisors, co-workers, friends, and family

members was linked to less occupational stress. Similarly, Russell, Altmeier, and Van Velzen (1987) discovered that teachers who felt supported by their supervisors, perceived that others respected their skills, and had people to count on in an emergency reported fewer symptoms of burnout than those who reported lower levels of social support. Likewise, research indicates that teachers who report an absence of social support networks endorse higher levels of occupational stress (Griffith et al., 1999; Tonder & Williams, 2009) and burnout (Schwab et al., 1986).

Although the literature has identified a clear association between social support and educator burnout, few studies have examined this relationship among teachers working in urban public schools. Two exceptions, as previously noted, are Dworkin and colleagues (2003) study of urban public school teachers in Texas and Abel and Sewell's (1999) study of urban and rural teachers in Georgia and North Carolina; both studies found that social support was associated with lower levels of burnout. However, additional research is needed to assess whether these findings are characteristic of educators working in urban public schools.

The Relationship between Compassion Fatigue and Burnout

Compassion fatigue is still in an early stage of theoretical and empirical development; as the construct has evolved, researchers have sought to distinguish it from the comparatively well-established concept of burnout (Jenkins & Baird, 2002). Like burnout, compassion fatigue is a work-related stress response that is triggered by interpersonal demands and results in psychological distress (Jenkins & Baird, 2002). However, unlike burnout, compassion fatigue is initiated through exposure to secondary trauma (Figley, 1995, 2002a; Schauben & Frazier, 1995), and has not been strongly associated with specific job conditions (Jenkins & Baird, 2002),

such as work overload or time demands. Despite these differences, there has been considerable conceptual confusion in the literature regarding compassion fatigue, burnout, and the relationship between the constructs (Adams et al., 2006; Figley, 1995, 2002a; Jenkins & Baird, 2002).

Figley and colleagues (Adams et al., 2006; Figley, 1995) have taken three seemingly contradictory positions on the relationship between compassion fatigue and burnout. On the one hand, Figley has asserted that the concept of burnout has “masked” the issue of compassion fatigue, despite the disparities between the constructs (Figley, 2002a, p. 3). Unlike burnout, Figley (2002a) has argued that compassion fatigue is caused by a traumatic exposure, and has a faster onset of and recovery from symptoms. In addition, Figley (2002a) has pointed out that the symptoms of burnout far exceed those of compassion fatigue, and may require an individual to change jobs or careers. He has further affirmed that compassion fatigue is “highly treatable” if it is recognized and acknowledged (Figley, 2002b, p. 1436). However, Figley and colleagues have theorized elsewhere that “compassion fatigue is one form of burnout” (Figley, 2002a, p. 5) and, contrastingly, that burnout is one of the “central and critical clinical features” of compassion fatigue (Adams et al., 2006, p. 5). While the first assertion has received little empirical attention or validation, the second notion – that burnout is a component of compassion fatigue – has been investigated in the literature (Adams et al., 2006; Jenkins & Baird, 2002).

Adams, Boscarino, and Figley (2006) conducted a study of compassion fatigue, secondary traumatic stress, and burnout in social workers, with the goal of validating a compassion fatigue instrument (The Compassion Fatigue Scale – Revised; CFS-R) that incorporated the three concepts. The authors found that secondary trauma was distinct from burnout, but concluded that both secondary trauma and burnout were underlying components of

compassion fatigue. However, this conclusion is problematic. Adams and colleagues (2006) conceptualization of compassion fatigue and secondary traumatic stress as separate constructs contradicts Figley's previous (Figley, 1995, 2002a) and subsequent (Bride, Radey, & Figley, 2007) assertions that compassion fatigue can be used as a synonym for secondary traumatic stress. This inconsistency appears to have been noted by Figley and colleagues (Bride, Radney, & Figley, 2007), who retrospectively describe the CFS-R as measuring only two constructs – compassion fatigue and burnout. From this perspective, Adams and colleagues (2006) study would appear to support the idea of compassion fatigue and burnout as unique concepts, as opposed to the notion of burnout as a dimension of compassion fatigue.

While it is increasingly clear that compassion fatigue and burnout are two distinct constructs, the research suggests that compassion fatigue may set the stage for the subsequent development of job burnout (Bell et al., 2003; Farrenkopf, 1992; Maytum et al., 2004). In Maytum and colleagues (2004)'s qualitative study of the coping strategies employed by 20 pediatric nurses to prevent and manage compassion fatigue and burnout, the authors found that compassion fatigue symptoms were viewed by the participants as "cyclic" and "transient" feelings that were a "part of daily life," and did not require them to take time away from their work. However, the participants reported that compassion fatigue symptoms progressed over time into burnout, which was described by the respondents as serious, long-lasting, and was characterized by intense fatigue and a decreased ability to function at work or at home. This study provides compelling evidence to suggest that unaddressed compassion fatigue symptoms may increase an individual's risk of developing burnout. However, the study's small sample size limits the generalizability of the authors' findings. In addition, the absence of validated, reliable

measures of compassion fatigue and burnout raises questions regarding whether the participants were, in fact, describing two distinct clusters of symptoms.

In a study of traumatic stress responses among 24 therapists working with sex offenders, Farrenkopf (1992) found that about 25% of the participants were experiencing burnout. However, several emotional stages appeared to precede the development of burnout, starting with a shock phase characterized by hypervigilance and an increased sense of vulnerability. This stage was gradually replaced by a period of increased empathy for the client, which subsequently dissolved into emotional hardening, anger, and cynicism (Farrenkopf, 1992). While the term “compassion fatigue” was not yet being used at the time of this study, Farrenkopf’s description of the emotional state of the participants – particularly their feelings of vulnerability and increased vigilance – is consistent with symptoms of secondary traumatic stress. Farrenkopf’s research suggests that initial signs of compassion fatigue may progress into burnout among therapists who work with issues of trauma. Significantly, the therapists in Farrenkopf’s study were treating perpetrators, rather than victims, of trauma (although many of the perpetrators may also have been victims at some point). Additional research is needed to establish whether compassion fatigue symptoms also predict burnout among individuals who work primarily with children who are trauma survivors.

Compassion Satisfaction and the Development of Compassion Fatigue and Burnout

Like compassion fatigue, compassion satisfaction is a relatively new construct, defined by Figley (1995) as an individual’s sense of achievement regarding his or her efforts to help another person. In his Compassion Stress and Fatigue Model (1995, 2002b), Figley theorized that

high levels of compassion satisfaction, in conjunction with the ability to disengage from one's work, would prevent the development of compassion fatigue among those who are exposed to secondary trauma. Subsequent research has provided partial support for this hypothesis by showing that a high degree of compassion satisfaction may be associated with fewer symptoms of compassion fatigue (Collins & Long, 2003; Conrad & Kellar-Guenther, 2006). Research revealing that compassion satisfaction and compassion fatigue often coexist, however, has posed a challenge to Figley's (1995, 2002b) conceptualization of compassion satisfaction as a mediator of secondary traumatic stress.

For example, in Conrad and Kellar-Guenther's (2006) study of 363 child protection workers, the authors sought to identify the role of compassion satisfaction in the development of compassion fatigue and burnout by dividing respondents into "high" and "low" compassion satisfaction groups. Conrad and Kellar-Guenther found that participants with higher levels of compassion satisfaction reported reduced levels of compassion fatigue. However, the authors also discovered that half (50%) of the participants remained at a "high" or "extremely high" risk of compassion fatigue, despite reporting high levels of compassion satisfaction. In contrast, only 7.7% of the participants with high levels of compassion satisfaction reported a "high" or "extremely high" risk of burnout. The authors concluded that compassion satisfaction reduces the risk of compassion fatigue while actively mitigating burnout risk. While Conrad and Kellar-Guenther's research provides valuable information regarding the role of compassion satisfaction in the development of compassion fatigue and burnout, the authors did not account for possible contributing or confounding variables. More research is needed to determine the relationship between compassion satisfaction, compassion fatigue, and burnout, over and above the influence

of demographic and environmental factors.

Stamm, who collaborated with Figley (Figley & Stamm, 1996) prior to constructing her own measure of compassion satisfaction, has offered a new hypothesis regarding the relationship between compassion satisfaction and compassion fatigue. Specifically, Stamm (2002, 2010) asserts that compassion satisfaction does not prohibit the development of compassion fatigue; rather, there is a “balance” between the two states, in which compassion satisfaction increases one’s capacity to withstand the effects of secondary traumatic stress. As such, compassion satisfaction appears to have a protective, but not preventative, relationship with compassion fatigue (Conrad & Kellar-Guenther, 2006; Stamm, 2002; Stamm, 2010).

On the other hand, Stamm (2002, 2010) theorizes that compassion satisfaction and burnout may be mutually exclusive states; that is, when an individual experiences high compassion satisfaction, it is unlikely – if not impossible – that they will develop burnout. As articulated by Stamm (2002), “burnout, characterized by exhaustion, seems to make it impossible to envision a world in which one is not overwhelmed by an inability to be efficacious...(but) compassion fatigue may be the portrayal of efficacy” (p. 113). More research is needed to verify Stamm’s (2002, 2010) theory of the relationships between compassion satisfaction, compassion fatigue, and burnout. As it appears that compassion satisfaction may be a mediating factor in the development of burnout, understanding the association between these two variables is of particular importance.

Because of the protective role compassion satisfaction appears to play in the risk of compassion fatigue and burnout, it is valuable to identify factors that have the potential to bolster compassion satisfaction. One variable, social support, has consistently emerged in the literature

as having a positive relationship with compassion satisfaction (Cicognani, Pietrantonio, Palestini, & Pratti, 2009; Collins & Long, 2003; Killian, 2008; Ortlepp & Friedman, 2002). For example, in Ortlepp and Friedman's (2002) mixed-methods study of 160 non-professional trauma counselors in South Africa, the authors found that the majority of respondents (68%) were satisfied with their level of social support, and that adequate social support was positively associated with higher levels compassion satisfaction. Additional research is needed to determine whether perceived social support is related to compassion satisfaction among teachers working in urban public schools.

Summary

This chapter presented a critical review of the theoretical and empirical literature related to compassion fatigue and burnout in educators. Compassion fatigue and burnout were defined, and the dominant theories associated with each were reviewed. This study was guided by the Job Demands-Resources (JD-R) conceptualization of work stress, which asserts that stress responses will occur when job demands are high and resources are low. This author argued for using the JD-R approach over the popular alternative, the Conservation of Resources (COR) model, as the JD-R theory allowed for an examination of the powerful role of perceived resources in the development of work-related stress reactions. However, while research indicates that the COR model underestimates the role of resources in the prevention of burnout and compassion fatigue, the author was also influenced by the centrality of social support within the COR theory.

This chapter also provided a review of the personal and environmental factors that have been selected for use in the current study due to the role they may play in the processes of

compassion fatigue and burnout. While there are few existing studies that address compassion fatigue in teachers, research exploring the phenomenon among other professional groups indicates that individuals who frequently interact with traumatized people (particularly children) and have a personal history of trauma are at a high risk of compassion fatigue. The association between trauma history and burnout is less clear, and has rarely been addressed in the literature; however, existing studies (e.g., Pearlman & MacJan, 1995) suggest that there may be a relationship between the variables that warrants further investigation. The research exploring the association between years of experience and compassion fatigue, and years of experience and burnout, is similarly mixed.

There is evidence that the environmental factors of time management, workload, discipline and motivation, professional distress, professional investment, and social support may play a role in both compassion fatigue and burnout. However, these factors have never been examined in relation to secondary traumatic stress in educators. Without additional research in this area, we have limited knowledge of which environmental variables contribute to compassion fatigue among teachers working in high-poverty urban environments. Similarly, the environmental factors that are theorized to relate to teacher burnout have rarely been investigated in educators working in inner-city public schools. As research has demonstrated that teachers in urban school systems may experience different sources of stress than their suburban and rural peers (Abel & Sewell, 2001), and therefore additional studies are needed to further illuminate which factors are linked to burnout in urban public school teachers.

Lastly, this chapter critically reviewed the literature that pertains to the relationships between compassion fatigue, burnout, and compassion satisfaction. As burnout is a more

developed and better known as a construct than compassion fatigue, researchers have faced challenges in their efforts to differentiate between the concepts (Jenkins & Baird, 2002). Even leading scholars in the field have taken conflicting positions on the association between compassion fatigue and burnout, at times asserting that they are each components of the other (see Figley, 1995, 2002a). However, theoretical and empirical studies suggest that the constructs are distinct, but that compassion fatigue may be a precursor of burnout among those who work with trauma. Further research is necessary to examine the role compassion fatigue may play in the high burnout rates among educators working in city public schools.

Existing research also suggests that compassion satisfaction, which was initially hypothesized to prevent the development of compassion fatigue (Figley, 1995, 2002a), may reduce symptoms related to secondary traumatic stress and mitigate the development of burnout (Conrad & Kellar-Guenther, 2006; Stamm, 2002, 2010). Additional research is needed to add to our understanding of these relationships (Stamm, 2002; Stamm, 2010), and to explore the potentially protective role of compassion satisfaction in the risk of compassion fatigue and burnout.

CHAPTER III

Methods

The purpose of this chapter is to provide information as to how the study was conducted. First, the population of interest and participants in the study is described. Second, the measurement instruments are reviewed, and the validity and reliability of each instrument is identified. Third, the research hypotheses and statistical analyses are presented. Lastly, the study design and procedure is discussed.

Population of Interest

The primary purpose of the current research was to explore work-related stress responses, specifically compassion fatigue and burnout, among public school teachers working in high-poverty urban areas. To investigate these issues, pre-K through twelfth grade educators employed at public schools in Newark, New Jersey were recruited to participate in the study.

Newark public school teachers were chosen as the target population for the current study for several reasons. For nearly 50 years, Newark has been listed among the 10 poorest cities in the nation (Noguera & Wells, 2011; U.S. Census Bureau, 2009). With a median household income of \$35,659, 25% of Newark's residents fall below the poverty line (U.S. Census Bureau, 2009) and 49% are considered to be "low-income," with incomes less than twice the federal poverty level (Legal Services of New Jersey, 2011). Newark is a "majority minority" city (Noguera & Wells, 2011), with approximately 52.4% of residents identifying as Black or African American and 33.8% identifying as Hispanic or Latino (U.S. Census Bureau, 2009). Like many

large urban school districts, Newark public schools are characterized by failing test scores, high rates of dropout, and poor attendance (Noguera & Wells, 2011). Despite these persistent challenges, the city of Newark has placed a high value on the education of its youngest residents, and has made numerous efforts to transform its troubled educational system (Noguera & Wells, 2011).

According to the New Jersey Department of Education, in the 2010-2011 school year, there were 2,685 full-time teachers working in the Newark Public School system (New Jersey Department of Education, 2011). Of these teachers, 74% ($n = 2924$) were female, and 26% ($n = 1009$) were male. In terms of racial identity, 43% ($n = 1728$) of Newark public school teachers identified as Black, 37% ($n = 1454$) identified as White, 8.5% ($n = 335$) identified as Hispanic, 1.3% ($n = 50$) identified as Asian, and 9.2% ($n = 366$) identified as “other” (i.e., Native American, Hawaiian Native, or two or more races). The participants in the current study were drawn from this population, and were comparable in terms of gender and racial identity.

Participants

Participants in the current study included 111 PreK through twelfth grade Newark public school teachers. Of these participants, 80.2% ($n = 89$) were female and 19.8% ($n = 22$) were male. In terms of racial identity, 36% ($n = 40$) participants identified as Black or African American, 45% ($n = 50$) identified as White or Caucasian, 11.7% ($n = 13$) identified as Hispanic or Latino, 1.8% ($n = 2$) identified as Asian, and 5.4% ($n = 6$) identified as “Other,” or checked two or more racial categories. With regard to relationship status, 51.4% ($n = 57$) of participants were married, 10.8% ($n = 12$) were cohabitating, 11.7% ($n = 13$) were in a relationship, and

24.3% ($n = 27$) were single at the time of the study. The ages of the participants ranged from 24 to 64, with a sample mean of 44.7 years. Number of years in the field of education spanned from 1 to 45, with a sample mean of 15.7 years. In terms of employment status, 99.1% ($n = 110$) of the participants were full-time teachers, and .9% ($n = 1$) worked part-time. No substitute teachers participated in the study. Finally, with regard to education, 38.7% ($n = 43$) of participants held a bachelor's degree, 56.8% ($n = 63$) held a master's degree, and 3.6% ($n = 4$) had a doctoral degree. In addition, one participant (.9%) indicated that they had "other" graduate training as an education specialist.

Research Instruments

The instruments used in this study included the Professional Quality of Life Scale – Version 5 (ProQOL 5) (Stamm, 2010), the Teacher Stress Inventory (TSI) (Fimian, 1984), the Social Provisions Scale (SPS) (Cutrona & Russell, 1987), and a demographic questionnaire developed by the researcher.

Professional Quality of Life Scale – Version 5 (ProQOL 5)

Stamm's (2010) Professional Quality of Life Scale – Version 5 (ProQOL 5) measures the positive and negative effects of working with individuals who have experienced a trauma. The ProQOL 5 is a revised version of an instrument that was originally known as the Compassion Fatigue Self-Test (Figley, 1995), and subsequently as the Compassion Satisfaction and Fatigue Test (Figley & Stamm, 1996). The measure is comprised of 30 items that produce three subscales: Burnout, Secondary Traumatic Stress, and Compassion Satisfaction. Sample items

from the Burnout subscale include “I feel worn out because of my work as a teacher” and “I feel overwhelmed because my workload seems endless.” The Secondary Traumatic Stress subscale items include “I jump or am startled by unexpected sounds” and “I am preoccupied with more than one person I teach.” Items from the Compassion Satisfaction subscale include: “I get satisfaction from being able to teach people” and “I believe I can make a difference through my work.” To respond to items, participants used a 5 point Likert-type scale, where 1 indicated *Never* and 5 indicates *Always*.

Psychometric information for the current revision of the ProQOL is based on a 1289-case database developed from multiple studies of workers who might experience compassion fatigue, including general health workers (e.g., clinicians and administrators), child and family workers (e.g., residential and child protective care workers), and school personal (e.g., teachers and counselors) (Stamm, 2010). The ProQOL has been found to have high validity and reliability. The construct validity of the measure is well-established; over 200 published articles exploring compassion fatigue, secondary traumatic stress, or vicarious traumatization have used the ProQOL 5 (or an earlier version of the measure) in their research (Stamm, 2010). In terms of convergent and discriminant validity, the subscales are distinct but related. Studies indicate that the shared variance between the Burnout scale and the Secondary Traumatic Stress scale ranges from 21% -34%, and is likely a reflection of the distress that is characteristic of both conditions (Stamm, 2010). With regard to distribution, the scale typically results in distributions that are symmetric and unimodal, although the Compassion Satisfaction scale is often positively skewed, and the Compassion Fatigue scale is generally negatively skewed (i.e., most people report an absence of compassion fatigue) (Stamm, 2010).

The alpha reliabilities for the scales are moderately high to high, ranging from .75 ($n = 976$) for the Burnout scale to .88 ($n = 1130$) for the Compassion Satisfaction scale. The standard errors of the measure are very small (ranging from .20 for the Secondary Traumatic Stress scale to .22 for the Compassion Satisfaction scale), indicating that the test has limited error interference (Stamm, 2010). The ProQOL has good item-to-scale properties, and no single item adds or subtracts from the quality of each subscale (Stamm, 2010). In addition, test-retest data suggests good reliability over time, with a small standard error of the estimate (Stamm, 2010).

Teacher Stress Inventory (TSI)

The Teacher Stress Inventory (TSI) was developed by Fimian (1984), and is a 49-item, 10-factor instrument that assesses the strength of the occupational stress experienced by American public school teachers. The TSI measures five stress source factors (Time Management, Work-Related Stressors, Professional Distress, Discipline and Motivation, and Professional Investment) and five stress manifestation factors (Emotional, Fatigue, Cardiovascular, Gastronomic, and Behavioral). In the current study, the five subscales associated with the sources of stress were used with permission from the author (Fimian, personal communication, March 29, 2011).

The first stress source subscale, "Time Management," is comprised of 5 items. Sample items include "I have little time to relax/enjoy the time of day" and "There isn't enough time to get things done." The second source of stress subscale is "Work Related Stressors," and includes 6 items, such as "My caseload/class is too big." The third subscale, "Professional Distress," is assessed with 5 items. Sample items from this subscale include "I lack promotion and/or

advancement opportunities,” and “I need more status and respect on my job.” The fourth source of stress subscale is “Discipline and Motivation,” and includes 6 items. Each item in this subscale begins with the phrase, “I feel frustrated...,” and ends with statements like “...having to monitor pupil behavior.” Lastly, the fifth source of stress subscale is “Professional Investment,” with 4 items. Sample items from this subscale include “my personal opinions are not sufficiently aired” and “I lack control over decisions made about classroom/school matters.” The TSI is self-administered, and participants responded to the items using a 5-point Likert-type scale, in which 1 represents *No Strength; Not Noticeable* and 5 represents *Major Strength; Extremely Noticeable*. The value of each of the subscales was computed individually; for example, to calculate scores on the Time Management subscale, each participant’s item scores were added, and then divided by the total number of items in the scale – in this case, five (Fimian, 1988).

The TSI has been found to be a valid instrument for the assessment of teacher stress (Fimian, 1988). With regard to content and factorial validity, the pilot version of the TSI, the Teacher Stress Scale, was developed following a complete review of the existing literature and consultation with teachers, graduate students, and professors in the field of education (Fimian, 1988). The scale consisted of 63 test items and 13 a priori factors: (a) Personal Competence, (b) Self-Relationship, (c) Conflicting Values, (d) Social Approval, (e) Isolation, (f) Expectations, (g) Self-Fulfillment, (h) Environmental, (i) Unmet Professional Needs, (j) Self-Inflicted Stress, (k) Professional Constraints, (l) Student-Teacher Relationships, and (m) Miscellaneous Demands of Teaching (Fimian, 1982). The scale was then distributed to 365 special education teachers; following a principal components factor analysis, 30 of the original items and 6 factors were retained. This 30-item scale was renamed the Teacher Stress Inventory (TSI; Fimian, 1985). The

TSI was subsequently administered to special and regular education teachers in Vermont during the 1980-1981 school year. The resulting analysis produced a 41-item pool, with nearly identical factor patterns to the Connecticut study (Fimian, 1984). In consultation with 226 stress experts, an additional 8-item factor – “Time Management” – was added to the instrument in 1982, increasing the questionnaire to a 49 items (Fimian, 1988).

The TSI initially assessed two dimensions of occupational stress – strength and frequency – measured on separate Likert-type scales. However, based on data collected from 14 samples, Fimian, Zacherman, and McHardy (1985) found that the Frequency and Strength factors were significantly related; correlations ranged from a low of .30 to a high of .99. In light of this information, the Frequency dimension was eliminated from the TSI in 1987 (Fimian, 1988). Final factor and reliability analysis were subsequently conducted on combined (special and regular education) sample of 3,401 teachers using only the Strength dimension (Fimian, 1988). Based on a 49-by-49 item intercorrelation matrix and a principal components analysis, ten factors for the Strength dimension emerged that explained 58% of the variance in teacher stress (Fimian, 1988).

The current version of the TSI has also been found to be a reliable instrument, with high alpha reliability (Fimian, 1988). Alpha reliability assesses the degree to which items within a subscale or scale hang together; the lower the alpha reliability estimate, the lower the internal consistency of an instrument. The whole scale alpha reliability of the TSI is .93, and reliability estimates for each of the individual subscales range from .67 to .88 (Fimian, 1988; Fimian & Fasteneau, 1989). In addition, the TSI has been demonstrated to have high test-retest reliability, which illustrates the degree to which an individual’s responses fluctuate across time (Fimian,

1988). Test-retest reliability was established by mailing two sets of the TSI to a random sample of 60 teachers in North Carolina. The teachers received instructions to complete the second TSI after 2 hours (25%), 1 day (25 %), 1 week (25%), or 2 weeks (25%). Correlations ranged from .42 to .99 for the subscales, and from .67 to .99 for the whole scale (Fimian, 1988). Additional evidence of test-retest reliability was provided in a 1984 sample of 39 teachers in Georgia, who were administered the TSI on two occasions, two months apart. The correlations from this study ranged from .49 to .84 ($p = .001$) for the subscales, and .76 ($p = .001$) for the entire test (Fimian, 1986).

Social Provisions Scale (SPS)

The Social Provisions Scale (SPS; 1984) was developed by Russell and Cutrona to assess levels of perceived social support. The construction of the scale was guided by the six social provisions described by Weiss (1973), which include: guidance (e.g., advice and information), reliable alliance (e.g., feeling that one can turn to others in times of stress), reassurance of worth (e.g., feeling that one's competence is recognized), attachment (e.g., emotional closeness), social integration (e.g., the feeling of belonging to a group), and opportunity for nurturance (e.g., providing help to others) (Russell & Cutrona, 1984). The SPS contains 24 items, four for each of the six provisions. Half of the items describe the presence of a type of support, and half describe the absence. Sample items that measure the existence of support include "There are people I can depend on to help me if I really need it" and "There are people who depend on me for help." Items that assess the lack of social support include "There is no one I can turn to for guidance in times of stress" and "I feel that I do not have close personal relationships with other people"

(Russell & Cutrona, 1984). The participant used a 4-point, Likert-type scale to report the extent to which each statement depicted his or her current social network. Possible responses ranged from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). Scores can be derived for each of the six provisions, as well as a global support score (Russell & Cutrona, 1984). In the current study, the global support score was used with permission from the author (Russell, personal communication, March 29, 2011).

Research indicates that the SPS is a valid and reliable measure of social support. With regard to predictive validity, SPS scores have predicted adaptation to stress among a variety of populations, such as teachers, post-partum women, the elderly, and spouses of cancer patients (Russell & Cutrona, 1984). For example, Cutrona (1984) found that women without the social provisions of Reliable Alliance, Reassurance of Worth, Social Integration, and Guidance were more likely to experience post-partum depression. A study of social support in teachers also found that social provision scores were predictive of loneliness, depression, and health status (Russell, Altwater, & Van Velzen, 1987). In terms of convergent validity, scores on the SPS have been found to be significantly correlated with the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980). Regarding discriminant validity, the mean intercorrelation among the six provisions is .27, with a range of .10 to .51 (Cutrona & Russell, 1987).

In terms of reliability, the overall internal consistency is acceptable (Cutrona & Russell, 1987). Internal consistency figures were over .60 in a study of 300 teachers (Russell, Altmaier, & Van Velzen, 1987). In a study of 100 elderly subjects, Cutrona, Russell, and Rose (1986) found that the internal consistency estimates of all provisions were .70 or above. In the same study, the authors reported test-retest reliability coefficients ranging from .37 to .66 (Cutrona et al., 1986).

Demographic Questionnaire

The demographic questionnaire asked each participant to respond to the following items: age, gender, race/ethnicity, relationship status, number of years of teaching experience, employment status (full-time/part-time/substitute), and highest level of education attained. In addition, the questionnaire included three items that inquired about each participant's exposure to primary and secondary traumatic stress. Previous researchers have assessed trauma exposure by asking participants to rate the extent to which the population they work with has been traumatized, the extent to which the participants' work addresses issues related to their clients' traumatic experiences (Adams et al., 2006; Boscarino et al., 2004; Devilly, Wright, & Varker, 2009), and how often participants have personally experienced trauma in their lifetimes (Adams et al., 2006; Boscarino et al., 2004). Following these examples, in the current study, each participant was first asked to indicate on a scale of 0 (*None*) to 4 (*All*) what proportion of the students they have worked with have experienced a traumatic event. Secondly, each participant was requested to indicate on a scale of 0 (*Never*) to 5 (*Daily*) approximately how often they directly address students' traumatic experiences. Thirdly, each participant was asked to denote how many traumatic events they have personally experienced in their lifetimes on a scale of 0 (*None*) to 4 (*Four or more*). To reduce variability regarding what constitutes a trauma, a definition of traumatic events with examples from the DSM-IV-TR (APA, 2000) was provided.

Study Design

The current study used a non-experimental, correlational design. The independent variables in the study included the following: years of experience, trauma history, and secondary

traumatic stress exposure, which were measured by items on the demographic questionnaire; occupational sources of stress (i.e., time management, workload, discipline and motivation, professional distress, and professional investment) measured by scores on the Teacher Stress Inventory (TSI; Fimian, 1984); perceived social support measured by the Social Provisions Scale (SPS; Russell & Cutrona, 1984); and compassion satisfaction and compassion fatigue, which were measured by scores on the Professional Quality of Life Scale - Version 5 (ProQOL 5). Compassion fatigue was also explored as a dependent variable, along with burnout; both dependent variables were measured using scores on the ProQOL. A web-based survey methodology was chosen to facilitate distribution and increase confidentiality and anonymity (Cantrell & Lupinacci, 2007; Whitley, 2002). Online surveys have been shown to be an effective means of collecting data regarding sensitive issues (Granello & Wheaton, 2004), including trauma history and exposure (Cromer, Freyd, Binder, DePrince, & Becker-Blease, 2006).

Statistical Analysis

First, it was hypothesized that teachers working in urban public schools would report high levels of compassion fatigue and compassion satisfaction, and low levels of burnout. To investigate this hypothesis, sample mean scores for the three subscales of the ProQOL were obtained and converted to percentiles using the scoring table in the ProQOL manual (Stamm, 2010). A high risk of compassion fatigue was indicated by scores above 17 (75th %ile on the Secondary Traumatic Stress subscale, and scores below 7 (25th %ile) were indicative of low compassion fatigue risk. High potential for compassion satisfaction was specified by scores above 42 (75th %ile) on the Compassion Satisfaction subscale of the ProQOL. Low potential for

compassion fatigue was signified by scores below 32 (25th %ile). A high risk of burnout was delineated by scores above 26 (75th %ile), and low burnout risk was indicated by scores below 15 (25th %ile), on the Burnout scale of the ProQOL. Frequency data was also reviewed to determine what percentage of the sample fell within the low, average, and high risk categories for each of the three subscales.

Second, it was hypothesized that perceived social support would have a negative correlation with compassion fatigue and burnout, and a positive correlation with compassion satisfaction. To test these hypotheses, Pearson product-moment correlation coefficients were computed between perceived social support and burnout, compassion fatigue, and compassion satisfaction.

Third, it was hypothesized that years of experience, trauma history, secondary traumatic stress exposure, and occupational stress related to workload, time management, discipline and motivation, professional distress, and professional investment would predict compassion fatigue. This hypothesis was tested using a standard multiple regression analysis. Intercorrelations were run between all demographic variables (age, gender, race/ethnicity, relationship status, and years of experience,), trauma variables (secondary traumatic stress exposure and trauma history), occupational sources of stress (time management, work-related stressors, professional distress, discipline and motivation, and professional investment) and the criterion variable, compassion fatigue. All significant correlations were included as predictors in the multiple regression analysis.

The fourth hypothesis proposed that years of experience and occupational stress related to workload, time management, discipline and motivation, professional investment, and

professional distress would predict burnout. This hypothesis was tested using a standard multiple regression analysis. Intercorrelations were run between all demographic variables (age, gender, race/ethnicity, relationship status, and years of experience,), trauma variables (secondary traumatic stress exposure and trauma history), occupational sources of stress (time management, work-related stressors, professional distress, discipline and motivation, and professional investment) and the criterion variable, burnout. All significant correlations were included as predictors in the regression analysis.

Fifth, it was hypothesized that compassion fatigue and compassion satisfaction would predict burnout among teachers, over and above the effects of personal characteristics and environmental stressors. This hypothesis was tested using a hierarchical regression analyses. All significant demographic variables (age, gender, race/ethnicity, relationship status, and years of experience,), trauma variables (secondary traumatic stress exposure and trauma history), occupational sources of stress (time management, work-related stressors, professional distress, discipline and motivation, and professional investment) were identified by running intercorrelations and included as predictors in step one of the hierarchical regression. Compassion fatigue and compassion satisfaction were added as predictor variables in the second step of the hierarchical regression analysis.

Power Analysis

To determine the number of participants that were needed for the current study, an a priori power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) was conducted. With assumed values of $\alpha = 0.05$, power = 0.80, and a medium effect size of .30, a minimum

sample size of 74 was required. With 111 participants, the present sample size satisfied the a priori requirements.

Procedure

For the present study, potential participants included all Newark public school teachers with email addresses in the public domain (i.e., on the websites of primary, elementary, junior high, and high schools in the Newark school district). Initially, an invitation to participate was sent by email to approximately 600 pre-Kindergarten through 8th grade teachers. The invitation included a brief overview of the study, and informed potential participants that their participation would be completely voluntary, anonymous, and confidential. Contact information for the primary researcher, research advisor, and Institutional Review Board (IRB) chairpersons for the Newark Public Schools and Seton Hall University were provided. Teachers who elected to participate clicked on a hyperlink within the body of the email, which navigated them to the online survey.

The survey was created using Seton Hall University's Academic Survey System & Evaluation Tool (*Asset*; Wachsmuth, 2011), a web-based system that enables users to develop and distribute surveys and collect data online. The survey included a welcome page that provided the necessary information for informed consent. Detailed information about the purpose and duration of research, procedures, instruments, and potential risks and benefits were included. Potential participants were assured that their participation was completely voluntary, anonymous, and confidential. They were informed that they would not be required to include identifying information on any survey materials, and that data would be analyzed for group patterns

exclusively. In the event that any participant experienced emotional discomfort, contact information for three national counseling resources (the National Mental Health Association Center, the National Suicide Prevention Hotline, and the Rape, Abuse, and Incest National Network) was provided within the “risks” subsection. At the bottom of the welcome page was a notice to participants indicating that their completion of the surveys would denote their informed consent. All participants were encouraged to print a copy of the informed consent document for their records.

After the welcome page, potential participants were asked to complete a demographic questionnaire, the Professional Quality of Life Scale – Version 5 (ProQOL 5; Stamm, 2010), the Time Management, Work-Related Stressors, Professional Distress, Discipline and Motivation, and Professional Investment subscales of the Teacher Stress Inventory (TSI; Fimian, 1984), and the Social Provisions Scale (SPS; Cutrona & Russell, 1987). In its entirety, the survey took approximately 15 minutes to complete.

Five days after the first 600 email invitations were sent, a technical error occurred that resulted in a partial loss of data for the first 42 participants in the study. Due to concerns about obtaining an adequate sample size, permission was sought and granted by the Newark Public Schools Institutional Review Board (IRB) and Seton Hall University IRB to broaden the study by inviting Newark public high school teachers to participate. Subsequently, approximately 300 invitation emails were sent to high school educators with emails in the public domain.

A follow-up email was sent to the pre-K through eighth grade teachers two weeks after the first participation invitations were distributed. Within this message, teachers who had already participated were thanked for their time and effort, and were notified that a technical error had

occurred resulting in data loss. These teachers were invited to submit their data for a second time by clicking on a hyperlink that took them to a second copy of the survey. Eleven of the initial 42 participants elected to resubmit their data. Teachers who had not yet participated were provided with a link to the study. A follow-up email was sent to the high school teachers one week after they were initially invited to participate in the study. Teachers who had already submitted data were thanked, and a link to the study was provided for those who had not yet participated.

In all, 905 invitations were sent by email to potential participants. Of these invitations, approximately 24% ($n = 217$) were immediately returned as “undeliverable,” resulting in 688 usable email addresses. One hundred and forty-two teachers elected to participate in the current study, for a 20.63% response rate. Unfortunately, due to technical error, data was lost for the first 42 participants, and only 11 teachers resubmitted their responses. The survey was made available for five weeks; after which 111 teachers had participated in the present research, yielding a 16.13% effective response rate.

Summary

This chapter provided methodological information about the current study. The population of interest, comprised of preK through twelfth grade teachers working in the Newark public school system, and the participants were discussed. The instruments that were used in the study were described in detail, and validity and reliability data were reviewed for each scale. The non-experimental and correlational design of the study was presented, and each independent and dependent variable and its measurement were delineated. The methods used to screen data were reviewed, and the statistical analyses that were utilized to explore each hypothesis were

explained. Lastly, the procedure of the study was described in detail. The results of the present research will be presented and examined in Chapter IV.

CHAPTER IV

Results

The purpose of this study was to examine the following: (a) the prevalence of compassion fatigue, burnout, and compassion satisfaction among teachers working in urban public schools, (b) the correlations between compassion fatigue, burnout, and compassion satisfaction and perceived social support, (c) the demographic, trauma-related, and work stress-related variables that predict compassion fatigue and burnout, and (d) the ability of compassion fatigue and compassion satisfaction to predict burnout, over and above the influence of all other variables. In this chapter, the design of the study will be reviewed, the approach to data screening will be presented, the descriptive statistics of the sample will be provided, and the findings from each of the tested study hypotheses will be discussed.

Statement of Design

A non-experimental, correlational design was utilized in the current research. The independent variables were years of experience, trauma history, and secondary traumatic stress exposure, which were measured by items on the demographic questionnaire; occupational sources of stress (i.e., time management, workload, discipline and motivation, professional distress, and professional investment) measured by scores on the Teacher Stress Inventory (TSI; Fimian, 1984); perceived social support measured by the Social Provisions Scale (SPS; Russell & Cutrona, 1984); and compassion satisfaction and compassion fatigue, measured by scores on the Professional Quality of Life Scale - Version 5 (ProQOL 5). Compassion fatigue and burnout

were also examined as dependent variables in a separate analysis, and were assessed using scores on the ProQOL.

Data Screening

Prior to analysis, all variables were screened for potential code violations, statistical assumption violations, missing values, and outliers using SPSS Version 17 (SPSS, 2008) according to the guidelines provided by Meyers, Gamst, and Guarino (2006). There were no code violations, and all values were within the scope of their respective scales. Data were missing from the following variables: age (3 values), relationship status (2 values), years of experience (1 value), time management (1 value), work-related stressors (1 value), professional distress (1 value), discipline and motivation (1 value), and professional investment (1 value). The cases with missing values constituted less than 5% of the total for each variable, which is the threshold for missing data intervention (Meyers et al., 2006). As such, the process of listwise deletion was determined to be an adequate means of addressing the missing values.

Stem-and-leaf findings and boxplot data detected three univariate outliers on the compassion fatigue variable. To determine whether the outliers should be retained, normality data were obtained and reviewed. The compassion fatigue variable showed no evidence of significant skewness (.23) or kurtosis (.45). The Kolmogorov-Smirnov and Shapiro-Wilk tests of normality were non-significant, with values of .20 and .38, respectively. Ultimately, none of the outliers were determined to be extreme or anomalous enough to warrant removal. To further assess the univariate normality of the data, levels of skewness and kurtosis were evaluated for each of the continuous variables. Because of extreme negative kurtosis, three variables – age,

primary trauma, and professional distress – were transformed with a base-10 logarithm to improve normality. Subsequent tests of the transformed variables revealed acceptable levels of skewness and kurtosis. Two other variables exhibiting some negative kurtosis, compassion satisfaction (-.990) and social support (-.913), were not transformed as their values were within the +1.0 to -1.0 range (Meyers, Gamst, & Guarino, 2006). Multivariate outliers were screened by computing the Mahalanobis distance on the continuous variables for each case. None of the values associated with any case exceeded the critical value of 34.53 ($df = 13, p > .001$); as such, it was determined that no multivariate outliers were present.

Descriptive Statistics

Before addressing this study's hypotheses, descriptive statistics using SPSS were determined for each of the variables of interest. Table 1 provides a summary of the demographic characteristics of the sample. Participants in the current study included 111 preK through twelfth grade Newark public school teachers. Of these participants, 89 (80.2%) were female and 22 (19.8%) were male. In terms of racial identity, 50 (45%) identified as White or Caucasian, 40 (36%) identified as Black or African American, 13 (11.7%) identified as Hispanic or Latino, six (5.4%) identified as "other racial identity" or checked two or more racial categories, and two (1.8%) identified as Asian American. In regard to relationship status, 57 (51.4%) were married, 12 (10.8%) were cohabitating, 13 (11.7%) were in a relationship, and 27 (24.3%) were single at the time of the study. The ages of the participants ranged from 24 to 64, with a sample mean of 44.7 years. Years of work experience in the field of education spanned from one to 45, with a sample mean of 15.7 years. In terms of employment status, 110 (99.1%) of the participants were

Table 1

Demographic Characteristics

	<u><i>N</i></u> (<u><i>%</i></u>)
Gender (participant)	
Male	22 (19.8)
Female	89 (80.2)
Ethnicity	
White/Caucasian	50 (45)
Black/African American	40 (36)
Hispanic/Latino	13 (11.7)
Asian/Pacific Island	2 (1.8)
Other	6 (5.4)
Employment Status	
Full Time	110 (99.1)
Part Time	1 (0.9)
Relationship Status	
Married	57 (51.4)
Cohabiting	12 (10.8)
In a Relationship	13 (11.7)
Single	27 (24.3)
Education	
Bachelor's Degree	43 (38.7)

Master's Degree	63 (56.8)
Doctoral Degree	4 (3.6)
Other Graduate Training	1 (0.9)
	<i>M (SD)</i>
Age (years)	47 (12.13)
Work Experience (years)	15.7 (11.00)

full-time teachers, and one (0.9%) worked part-time. No substitute teachers participated in the study. Finally, with regard to education, 43 (38.7%) of participants held a bachelor's degree, 63 (56.8%) held a master's degree, and 4 (3.6%) had a doctoral degree. In addition, one participant (0.9%) indicated that they had "other" graduate training as an education specialist.

Prior to inclusion in the statistical analyses, the race/ethnicity, relationship status, and educational status variables were re-categorized into dichotomous variables. The code of 0 was applied to Non-White participants, and the code of 1 was applied to White participants. Sixty-one (55%) participants were included in the 'non-White' racial identity category and 50 (45%) participants were included in the 'White' racial identity category. The code of 0 was used for participants who were not in a relationship, and the code of 1 was used for participants who were in a relationship. Twenty-nine participants (26.1%) were categorized as 'not in a relationship' category and 82 (73.9%) were included within the 'in a relationship' category. Lastly, the code of 0 was given to participants with a college degree, and the code of 1 was given to participants with a graduate degree. Forty-three (38.7%) participants were included within the 'college education' category, and 68 (61.3%) were considered to have a graduate education.

Secondary Traumatic Stress Exposure

Each participant was asked to indicate on a scale of 0 (*None*) to 4 (*All*) the proportion of their students who had experienced a traumatic event. Seven (6%) reported that “all” of their students had a traumatic experience, 45 (41%) indicated that “most” of their students had experienced a trauma, and 40 (36%) reported that “some” of their students experienced a trauma. Seventeen (15%) participants indicated that “few” of their students experienced a trauma, and only 2 (2%) specified that “none” of their students experienced a traumatic event. Participants were also asked to indicate on a scale of 0 (*Never*) to 5 (*Daily*), approximately how often they directly addressed students’ trauma. Examples, such as providing resources or contacting the Division of Youth and Family Services (DYFS) were provided. Six (5%) participants reported that they addressed their students’ traumatic experiences daily, and 27 (24%) participants reported that they addressed their students’ traumatic experiences weekly. Twenty-four (22%) indicated that they addressed their students’ trauma approximately monthly, and 25 (23%) reported addressing their students’ traumatic experiences on a quarterly basis. Seven (6%) of participants indicated that they “never” interacted with their students about trauma.

Primary Trauma

Thirteen ($n = 12\%$) participants indicated that they had never had a traumatic experience. Twenty-one percent ($n = 23$) of participants reported having one traumatic experience. Twenty percent ($n = 22$) reported having two traumatic experiences, and 20% ($n = 22$) reported having three traumatic experiences. 28% ($n = 30$) endorsed having 4 or more traumatic experiences in their lifetimes.

Professional Quality of Life Scale – Version 5 (ProQOL 5)

The participants' levels of compassion fatigue, burnout, and compassion satisfaction were measured by the Professional Quality of Life Scale – Version 5 (ProQOL 5). Sample means and standard deviations are depicted in Table 2.

Table 2

Means and Standard Deviations for Burnout, Compassion Fatigue, and Compassion Satisfaction

	<i>M</i>	<i>SD</i>
Burnout	24.45	6.49
Compassion Fatigue	24.35	5.78
Compassion Satisfaction	39.24	6.84

The Teacher Stress Inventory

The participants' levels of stress related to time management, work-related stressors, professional distress, discipline and motivation, and professional investment was measured by the Teacher Stress Inventory (TSI). Higher scores on the TSI (1 = *No Strength/Not Noticeable*; 5 = *Major Strength/Extremely Noticeable*) indicated higher levels of perceived stress. Means and standard deviations for the sample are provided in Table 3.

Table 3

Means and Standard Deviations for Teacher Stress

	<i>M</i>	<i>SD</i>
Discipline and Motivation	3.61	1.13
Professional Distress	2.93	1.11
Professional Investment	2.61	1.07
Time Management	3.20	.88
Work-Related Stressors	3.27	1.07

Social Support

Participants' perceived levels of social support were measured by the Social Provisions Scale (SPS). The sample mean for this scale was 80.24, and 10.27 was the standard deviation.

Hypothesis Testing

Hypothesis I

First, it was hypothesized that teachers working in urban public schools would report high levels of compassion fatigue and compassion satisfaction, and low levels of burnout. To explore these hypotheses, sample mean scores for the three subscales of the ProQOL were obtained and converted to percentiles using the scoring table in the ProQOL manual (Stamm, 2010). In the ProQOL manual, a high risk of compassion fatigue is indicated by scores above 17, the 75th %ile, on the Secondary Traumatic Stress subscale. Scores below 7, the 25th %ile, are

indicative of low compassion fatigue risk. High potential for compassion satisfaction is specified by scores above 42, the 75th %ile on the Compassion Satisfaction subscale of the ProQOL. Low potential for compassion fatigue is denoted by scores below 32, the twenty-fifth percentile. A high risk of burnout is indicated by scores above 26, the 75th %ile, and low burnout risk is indicated by scores below 15, the 25th %ile, on the Burnout scale of the ProQOL. Frequency data were also reviewed to determine what percentage of the sample fell within the low, average, and high risk categories for each of the three subscales. Means and standard deviations for the sample are depicted in Table 2.

The mean compassion fatigue scale score for the sample was 24.35 ($SD = 5.78$). This score is equivalent to the 94th %ile, and indicates a high overall risk for compassion fatigue. One hundred and one participants (91%) received scores above the 75th %ile, and 11 participants (9.91%) obtained scores within the average range.

The mean compassion satisfaction scale score was 39.24 ($SD = 6.85$), which is equivalent to the 60th %ile and denotes a moderate potential for compassion satisfaction within the sample. Thirty-nine participants (35.13%) obtained scores above the 75th %ile, indicating that these individuals have a high likelihood of experiencing compassion satisfaction. Forty-eight participants (43.24%) received scores in the mid-range, denoting an average potential for compassion satisfaction, and the remaining 24 teachers in the sample (21.62%) obtained scores within the bottom quartile, indicating a low potential for compassion satisfaction.

The mean burnout scale score was 24.46 ($SD = 6.50$), which equates to the 70th percentile and signifies a moderate risk of burnout within the sample. Nine participants (8.11%) obtained scores below the 25th %ile, suggesting a low risk of burnout. Fifty-three of teachers in

the sample (47.75%) received scores in the average range, and 47 participants (42.34%) obtained scores above the 75th %ile, indicating a high risk of burnout.

Hypothesis II

Second, it was expected that perceived social support would have a negative correlation with compassion fatigue and burnout, and a positive correlation with compassion satisfaction. These hypotheses were explored by calculating Pearson product-moment coefficients between the variables of interest; these correlations are presented in Table 4. Preliminary analyses indicated that there were no violations of the assumptions of normality, linearity, and homoscedasticity.

Table 4

Intercorrelations between Social Support, Compassion Fatigue, Compassion Satisfaction, and Burnout

	Burnout	Compassion Fatigue	Compassion Satisfaction	Social Support
Burnout	1	.62**	-.72**	-.28**
Compassion Fatigue	.62**	1	-.32**	-.33**
Compassion Satisfaction	-.72**	-.32**	1	.21*
Social Support	-.28**	-.33**	.21*	1

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

There was a moderate negative correlation between social support and compassion fatigue ($r = -.33, p < .01$), wherein higher levels of social support were associated with lower levels of compassion fatigue. Figure 1 portrays the relationship between these two variables.

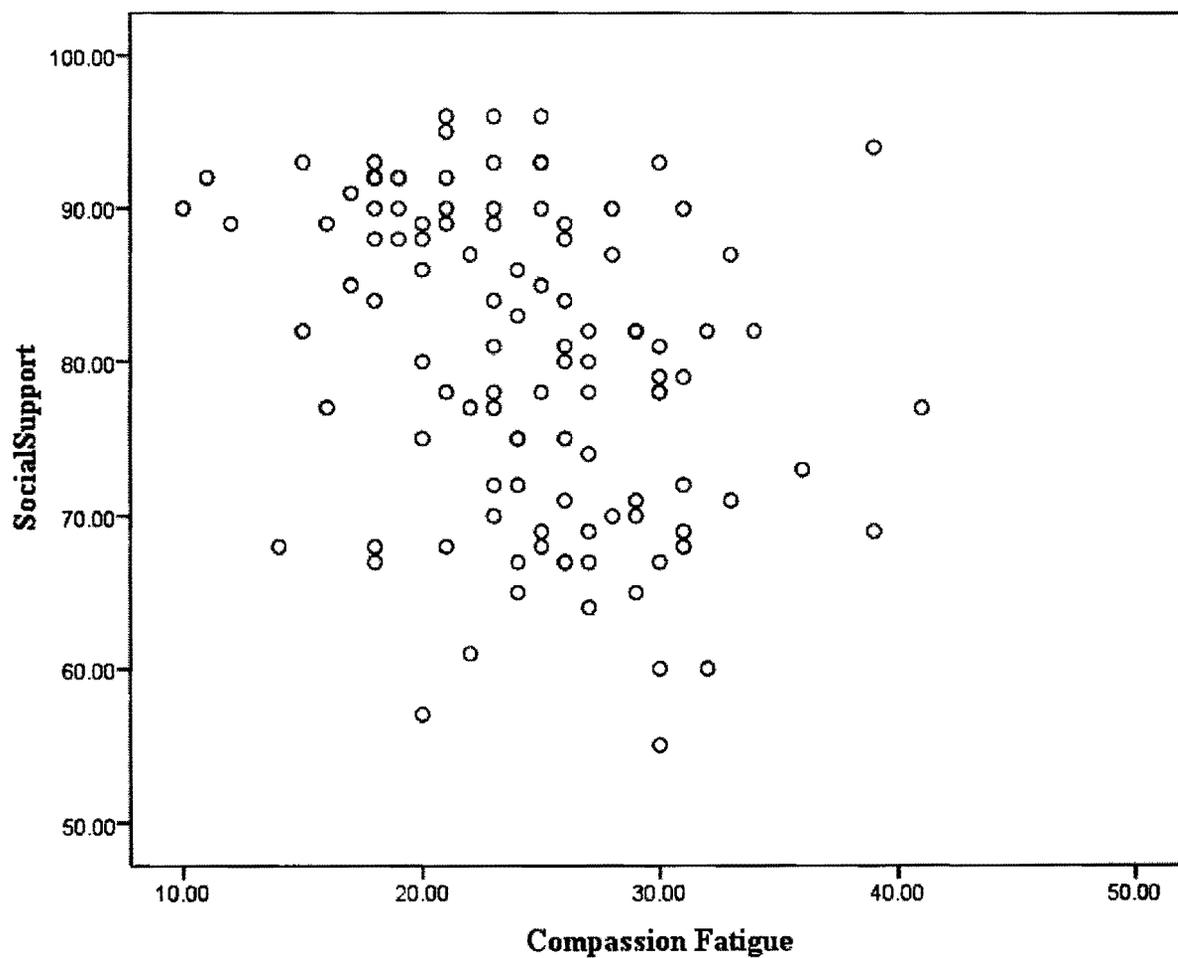


Figure 1. Scatterplot depicting the relationship between social support and compassion fatigue.

The correlation between burnout and social support was modest at $-.28$ ($p = <.01$); higher levels of social support were associated with lower levels of burnout. Figure 2 depicts the scatterplot for social support and burnout.

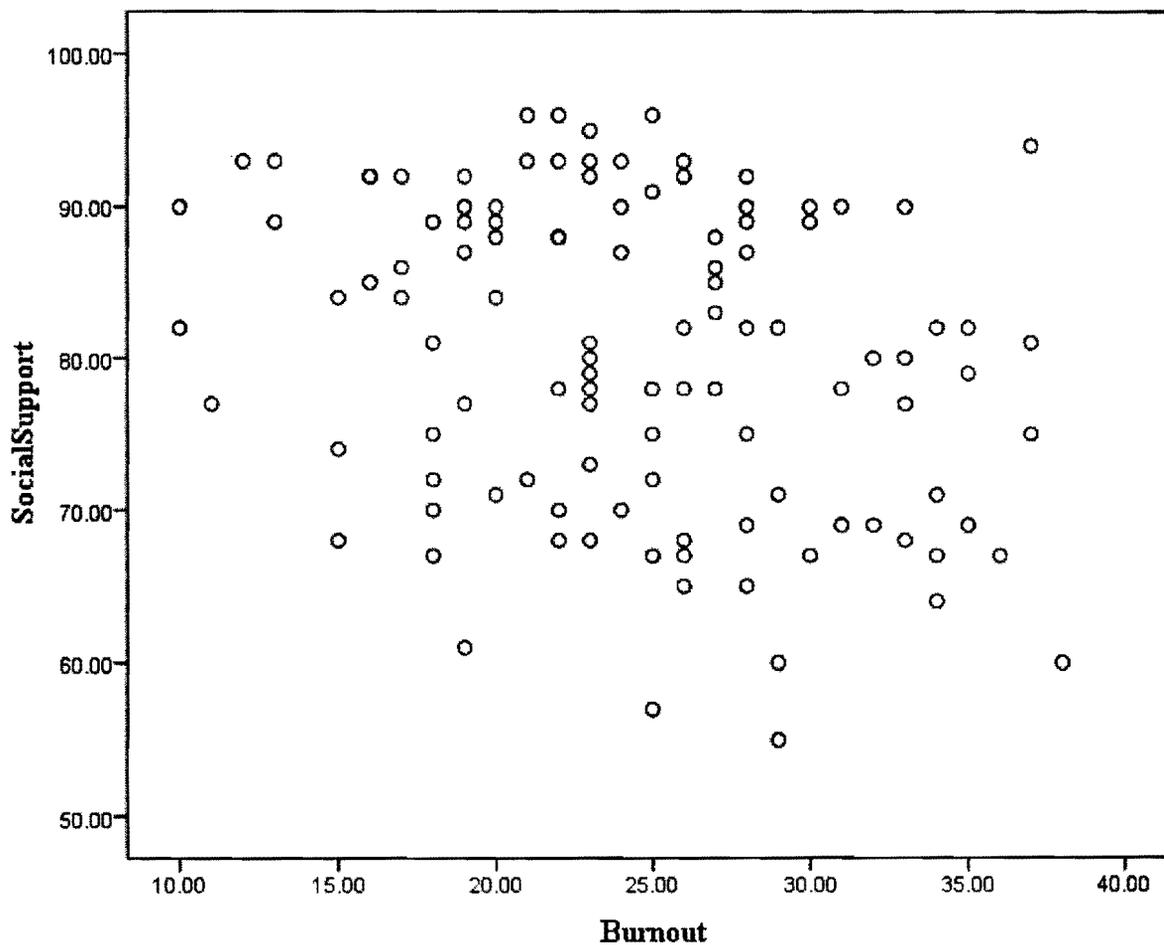


Figure 2. Scatterplot depicting the relationship between burnout and social support.

Lastly, the correlation between social support and compassion satisfaction was significant at the .05 level ($r = .21$, $p = <.05$). Figure three illustrates the relationship between these variables, and indicates that as levels of compassion satisfaction increase, levels of perceived social support also increase.

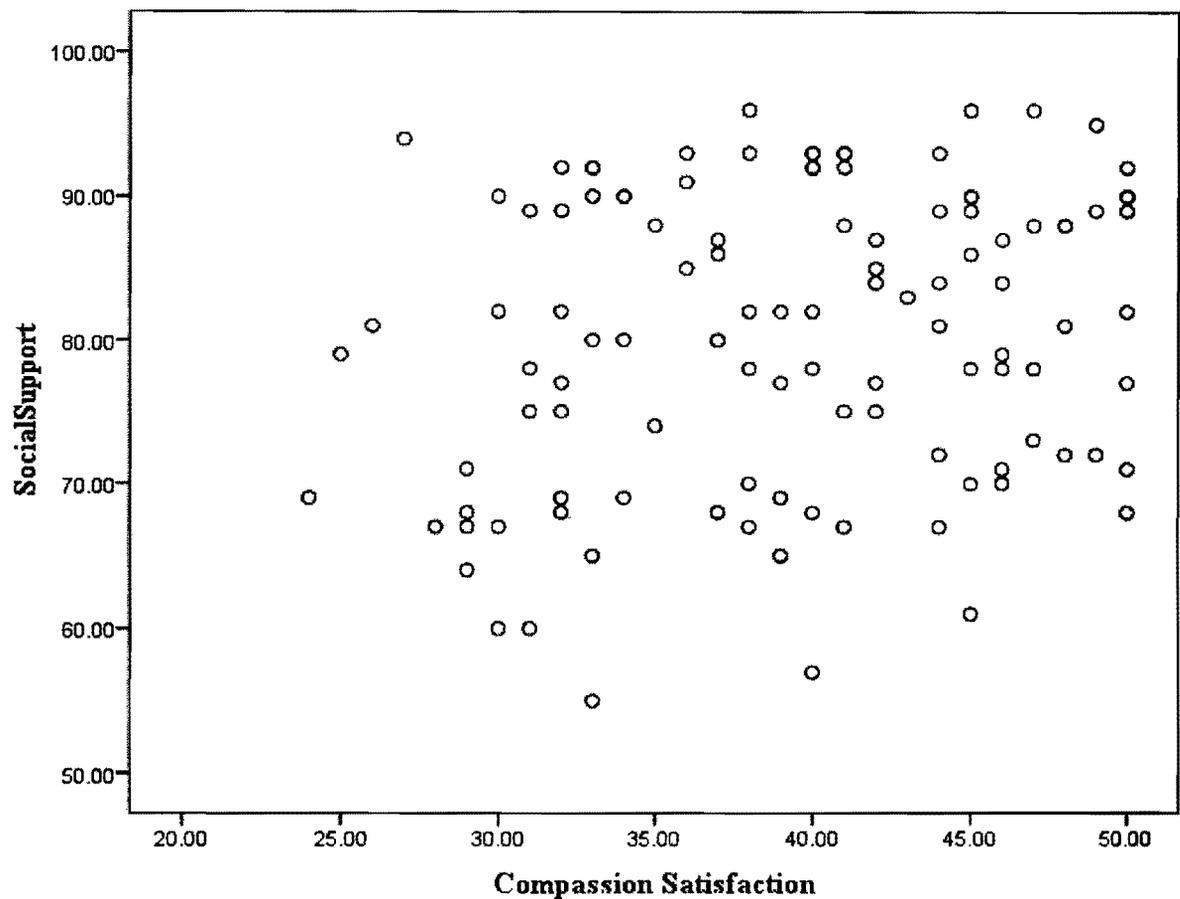


Figure 3: Scatterplot depicting the relationship between compassion satisfaction and social support.

Hypothesis III

Third, it was hypothesized that years of experience, trauma history, secondary traumatic stress exposure, and occupational stress related to workload, time management, discipline and motivation, professional distress, and professional investment would predict compassion fatigue. To analyze this hypothesis, Pearson product-moment correlation coefficients were computed between compassion fatigue and all demographic, trauma, and occupational stress variables.

Variables with a significant correlation with compassion fatigue were included as predictors in a standard multiple regression analysis.

Preliminary analysis was performed using SPSS Regression and SPSS Explore for evaluation of statistical assumptions. To reduce negative kurtosis and improve normality, linearity, and homoscedasticity, three variables, age, primary trauma exposure, and stress related to professional distress, were transformed using a base-10 logarithm. Subsequent analysis of the transformed variables revealed acceptable levels of skewness and kurtosis. There was no violation of the assumptions pertaining to multicollinearity or to the independence of residuals. With a $p < .001$ criterion for Mahalanobis distance, testing showed no outliers. Missing data accounted for less than 5% of all cases, and was addressed through the process of listwise deletion.

The results of the correlational analysis are presented in Table 5. The following variables were revealed to have a significant correlation with compassion fatigue, and were selected for inclusion in the regression analysis: secondary traumatic stress exposure ($r = .20, p = <.05$), time management ($r = .60, p = <.01$), work-related stressors ($r = .65, p = <.01$), discipline and motivation ($r = .51, p = <.01$), professional distress ($r = .37, p = <.01$), and professional investment ($r = .41, p = <.05$). Subsequently, a standard multiple regression was performed to evaluate how well secondary traumatic stress exposure and stress related to time management, work-related stressors, discipline and motivation, professional distress, and professional investment predicted the criterion variable, compassion fatigue.

Table 5

Pearson's Correlations between Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Burnout		.62**	-.72**	-.19*	.17	.20*	-.05	-.16	-.06	-.01	-.05	.60**	.66**	.61**	.54**	.54**
2. CF			-.32**	.15	.12	.15	.06	.05	.12	.20*	.09	.60**	.65**	.51**	.41**	.37**
3. CS				.22*	-.01	-.05	.06	.19*	.06	.01	.11	-.27**	-.32**	-.45**	-.45**	-.41**
4. Age					-.05	-.03	.02	.77**	.17	.11	.15	-.17	-.01	-.02	.04	.00
5. Gender						-.05	.07	.10	-.12	-.08	-.19*	.06	.09	-.01	-.08	-.11
6. Race/Ethnicity							-.12	.04	.01	.06	-.20*	.25**	.08	.03	.06	.09
7. Relationship								-.07	-.18	-.05	.15	.06	.03	-.04	-.17	.07
8. Experience									.11	-.01	.07	-.20*	-.02	-.04	-.05	-.08
9. Education										.09	.11	.07	-.02	.03	.14	.06
10. STS Exposure											.20	.09	-.03	.15	.11	-.09
11. PTS Exposure												.08	.10	.09	-.06	.02
12. Time Mgmt.													.71**	.43**	.43**	.39**
13. Work Stress														.56**	.48**	.45**
14. Disc. & Motivation															.53**	.49**
15. Prof. Investment																.69**
16. Prof. Distress																

* Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Note: CF = Compassion Fatigue; CS = Compassion Satisfaction; STS = Secondary Traumatic Stress; PTS = Primary Traumatic Stress

Table 6 displays the unstandardized regression coefficients (B), the standardized regression coefficients (β), R , R^2 , adjusted R^2 , and F after entry of all variables. R was significantly different from zero. The total R^2 was .51, $F(6, 103) = 18.12, p = <.01$. The adjusted R^2 value of .49 suggests that approximately 50% of the variance in compassion fatigue was predicted by secondary traumatic stress exposure, and stress related to time management, work-related stressors, discipline and motivation, professional distress, and professional investment. Three variables made a statistically significant contribution to the variability in compassion fatigue: work-related stressors ($\beta = .39, p = <.01$), time management ($\beta = .22, p = <.05$), and secondary traumatic stress exposure ($\beta = .17, p = <.05$).

Table 6

Summary of Standard Regression Analysis Predicting Compassion Fatigue

	B	β
STS Exposure	.54	.17*
Discipline and Motivation	.74	.15
Professional Distress (LOG)	1.4	.05
Professional Investment	.01	.00
Time Management	1.45	.22*
Work-related Stressors	2.10	.39**

$$R = .72$$

$$R^2 = .51$$

$$\text{Adjusted } R^2 = .51$$

$$F = 18.12^{**}$$

* $p < .05$. ** $p < .01$

Note. STS = Secondary Traumatic Stress

Hypothesis IV

Fourth, it was hypothesized that years of experience and occupational stress related to workload, time management, discipline and motivation, professional investment, and professional distress would predict burnout. This hypothesis was tested by standard regression analyses.

Preliminary analysis was performed using SPSS Regression and SPSS Explore for evaluation of statistical assumptions. To reduce negative kurtosis and improve normality, linearity, and homoscedasticity, three variables - age, primary trauma exposure, and stress related to professional distress - were transformed using a base-10 logarithm. With $p < .001$ criterion for Mahalanobis distance, testing showed no outliers. There were no violations of assumptions pertaining to multicollinearity or to the independence of residuals. Missing data accounted for less than 5% of all cases, and was addressed through the process of listwise deletion.

Table 5 displays the Pearson product-moment correlations between all variables of interest. The following variables were shown to have a significant correlation with burnout: age ($r = -.19, p < .05$), Racial/ethnic identity ($r = .20, p < .05$), time management ($r = .60, p =$

<.01), work-related stressors ($r = .66, p = <.01$), discipline and motivation ($r = .61, p = <.01$), professional distress ($r = .54, p = <.01$), and professional investment ($r = .54, p = <.05$). A standard multiple regression was then performed to evaluate how well these variables predicted the criterion variable, burnout.

Table 7 shows the unstandardized regression coefficients (B), the standardized regression coefficients (β), R , R^2 , adjusted R^2 , and F after entry of all variables. The linear combination of predictor variables was significantly related to burnout, with an R^2 value of .68, $F(7,99) = 22.88, p = <.05$. Approximately 60% (adjusted $R^2 = .59$) of the variance in burnout was predicted by age, racial/ethnic identity, time management, work-related stressors, discipline and motivation, professional distress, and professional investment. Three variables in the model were statistically significant: work-related stressors (beta = .31, $p = <.01$), discipline and motivation (beta = .24, $p = <.01$), and age (beta = .17, $p = <.05$).

Table 7

Summary of Standard Regression Analysis Predicting Burnout

	B	β
Age (LOG)	-8.73	-.17*
Race/Ethnicity	1.58	.12
Discipline and Motivation	1.39	.24**
Professional Distress (LOG)	5.58	.16
Professional Investment	.65	.11

Time Management	.84	.11
Work-related Stressors	1.86	.31**

$R = .79$

$R^2 = .62$

Adjusted $R^2 = .59$

$F = 22.88^{**}$

* $p < .05$. ** $p < .01$

Hypothesis V

The fifth hypothesis proposed that compassion fatigue and compassion satisfaction would predict burnout when controlling for the effects of personal characteristics and environmental stressors. This hypothesis was tested using a hierarchical multiple regression analysis, wherein burnout was the criterion variable, age, racial/ethnic identity, time management, work-related stress, discipline and motivation, professional distress, and professional investment were entered as a block of predictor variables at step one, and compassion fatigue and compassion satisfaction were entered as a block of predictors at step two.

Preliminary analysis was performed using SPSS Regression and SPSS Explore to ensure there were no violations of statistical assumptions. To reduce negative kurtosis and improve normality, linearity, and homoscedasticity, three variables - age, primary trauma exposure, and stress related to professional distress - were transformed using a base-10 logarithm. With $p < .001$ criterion for Mahalanobis distance, testing showed no outliers. There was no violation of assumptions pertaining to multicollinearity or to the independence of residuals. Missing data accounted for less than 5% of all cases, and was addressed through listwise deletion.

Table 8 depicts the unstandardized regression coefficients (B), the standardized regression coefficients (β), R , R^2 , adjusted R^2 , and F , and F change after entry of all variables. R was significantly different from zero after both steps of the analysis. In step one, age, racial/ethnic identity, time management, work-related stressors, discipline and motivation, professional distress, and professional investment explained approximately 60% of the variance in burnout ($R^2 = .62$, adjusted $R^2 = .59$, $F(7, 99) = 22.88$, $p < .01$). In step two, compassion fatigue and compassion satisfaction explained an additional 17% (R^2 change = .17) of the variance in burnout, when controlling for the demographic and environmental stress variables. The total variance explained by the model was 77% (adjusted $R^2 = .77$), $F(9, 97) = 40.60$, $p < .01$. In the final model, three variables were statistically significant: work-related stress (beta = .22, $p < .01$), compassion fatigue (beta = .20, $p < .01$), and compassion satisfaction (beta = -.44, $p < .01$).

Table 8

Summary of Hierarchical Regression Analysis Predicting Burnout

	B	β
Step 1		
Age (LOG)	-8.73	-.17*
Race/Ethnicity	1.58	.12
Discipline and Motivation	1.39	.24**

Professional Distress	5.58	.16
(LOG)		
Professional Investment	.65	.11
Time Management	.84	.11
Work-related Stressors	1.86	.31**

$R = .79$

$R^2 = .62$

Adjusted $R^2 = .59$

$F = 22.88^{**}$

Step 2

Age (LOG)	-5.18	-.10
Race/Ethnicity	1.19	.09
Discipline and Motivation	.53	.09
Professional Distress	3.37	.10
(LOG)		
Professional Investment	-.06	-.01
Time Management	.63	.08
Work-related Stressors	1.34	.22**
Compassion Satisfaction	-.44	-.46**
Compassion Fatigue	.23	.20**

$R = .89$
 $R^2 = .79$
Adjusted $R^2 = .17$
Adjusted R^2 Change = .77
 $F = 40.60$ **
 F Change = 39.82**

* $p < .05$. ** $p < .01$

Summary

The results of the statistical analyses provided partial support for the study's guiding hypotheses. First, it was hypothesized that the participants would endorse high levels of compassion fatigue and compassion satisfaction, and low levels of burnout. The results indicated that the participants did experience high levels of compassion fatigue, and moderate levels of compassion satisfaction and burnout.

The second hypothesis proposed that perceived social support would have a negative correlation with compassion fatigue and burnout and a positive correlation with compassion satisfaction. This hypothesis was fully supported by correlational analyses.

Thirdly, it was hypothesized that years of experience, trauma history, secondary traumatic stress exposure, and occupational stress related to workload, time management, discipline and motivation, professional distress, and professional investment would predict compassion fatigue. The results of a standard multiple regression analysis revealed that three of the expected variables - secondary traumatic stress exposure, time management, and work-related stress - were statistically significant predictors of compassion fatigue. However, personal trauma history and stress related to discipline and motivation, professional distress, and professional investment were not significant predictors of compassion fatigue within this sample.

The fourth hypothesis proposed that years of experience and occupational stress related to workload, time management, discipline and motivation, professional investment, and professional distress would predict burnout. The results of a standard multiple regression analysis indicated that only two of the expected predictors, stress related to workload and stress related to discipline and motivation, were significant predictors of burnout. In addition, the age of participants was an unanticipated predictor of burnout within the sample.

Fifth, it was hypothesized that compassion fatigue and compassion satisfaction would predict burnout among teachers working in an urban public school, over and above the effects of personal characteristics and environmental stressors. As expected, levels of compassion fatigue and compassion satisfaction were significant predictors of burnout, over and above the influence of the demographic and environmental stress variables.

CHAPTER V

Discussion

The current research was undertaken to explore the prevalence and correlates of compassion fatigue, compassion satisfaction, and burnout among a sample of teachers working in a high-poverty urban public school district. In this chapter, the findings of the present study will be examined and interpreted in light of the existing research. Subsequently, the limitations of the study will be presented, clinical implications will be discussed, and directions for future research will be suggested.

Interpretation of Findings

Prevalence of Compassion Fatigue, Compassion Satisfaction, and Burnout

The first goal of this study was to determine the extent to which teachers in high-poverty urban public schools experience compassion fatigue, compassion satisfaction, and burnout. Guided by previous research and Stamm's (2002) theory of the relationships between these three constructs, it was hypothesized that teachers in the current study would report a high level of compassion fatigue symptoms, a high potential for compassion satisfaction, and a low degree of burnout. An investigation of means and frequency data provided partial support for these hypotheses.

As anticipated, teachers in the current study were found to be particularly vulnerable to the development of compassion fatigue ($m = 24.35$, $SD 5.78$), with approximately 90% of the sample scoring within the high risk range. When viewed within the framework of the existing

literature, this result is striking. Only one existing study, an unpublished doctoral dissertation exploring work engagement in educators, provides an estimate of the prevalence of secondary traumatic stress in a teaching population (Robinson, 2005). In contrast with the present research, just 33.15% of Robinson's (2005) rural and predominately White sample demonstrated an elevated risk of compassion fatigue (Robinson, 2005). Several studies of compassion fatigue among mental health providers have reported even lower rates, with approximately ten to twenty percent of workers demonstrating clinically significant symptoms of secondary traumatic stress (Meldrum et al., 2002; Sprang et al., 2007). However, a significantly higher risk of compassion fatigue was detected by Wee and Myers (2003) among crisis counselors following the Oklahoma City Bombing. As with the teachers in the current sample, this population of counselors produced a group mean compassion fatigue score in the high risk range (Wee & Myers, 2003). An elevated risk of compassion fatigue has also been found in hospice nurses (Abendroth & Flannery, 2006), emergency nurses (Hooper et al., 2010), and oncology nurses (Dominguez-Gomez and Rutledge, 2008).

Why would the risk of compassion fatigue be so high among urban public school teachers? A compelling explanation relates to their degree of secondary traumatic stress exposure. As has been previously demonstrated in the literature, the frequency and intensity of one's engagement with traumatized individuals is a robust predictor of compassion fatigue (Adams et al., 2006; Birck, 2001; Boscarino et al., 2004; Creamer & Liddle, 2005; Killian, 2008; Meadors et al., 2009; Meyers & Cornille, 2002; Sprang et al., 2007). In the present study, 98% of the teachers reported that their students had experienced trauma, and 94% specified that their work with students directly addressed their students' traumatic experiences. This rate of

secondary trauma exposure is notably higher than that described by Adams, Boscarino, and Figley (2006), who used a similar method of assessing engagement with traumatized individuals in a sample of mental health professionals. Specifically, less than 20% of Adams and colleagues (2006) sample worked with a high number of traumatized patients, indicated by caseloads in which more than one-fifth of the clients were trauma survivors.

Intriguingly, the level of exposure to indirect trauma in Bride's (2007) study of mental health workers is similar to the exposure rate within the current study, although only 15% of Bride's (2007) sample endorsed high levels of compassion fatigue. Distinctions between the everyday work of teachers and mental health workers may be one reason for this difference. Unlike mental health professionals, who typically see their clients anywhere from once a month to several times per week (Seligman, 1995), educators often have multiple interactions with the same students on a daily basis. In this way, teachers may have more in common with nurses on inpatient hospital units, who typically interact with the same patients every one to two hours (Halm, 2009). Perhaps this commonality in the work of teachers and nursing staff accounts for the similarly high risk of compassion fatigue found in oncology nurses (Dominguez-Gomez & Rutledge, 2008), emergency nurses (Hooper et al., 2010), hospice nurses (Abendroth & Flannery, 2006), and the educators in the current sample.

Differences in exposure to secondary trauma may also account for the disparity between the vulnerability to compassion fatigue in the current sample and in Robinson's (2005) sample of rural educators. Although Robinson did not assess the extent of her sample's engagement with their students' trauma, previous research has established that children living in urban areas are more likely to experience trauma and violence than children residing outside of city

environments (Breslau, Wilcox, Storr, Lucia, & Anthony, 2004). As such, it is probable that the high-poverty urban public school teachers who participated in the present research were more frequently exposed to traumatized students than the rural educators in Robinson's (2005) study.

On average, teachers in the present research endorsed an above average potential for compassion satisfaction ($m = 39.24$, $SD = 6.85$). Over one-third (35.14%; $n = 39$) of the sample obtained scores that suggested a high potential for compassion satisfaction, and an additional 43% ($n = 48$) demonstrated a moderate degree of satisfaction in their work. As a point of comparison, approximately 26% of the rural educators in Robinson's (2005) sample were found to have a high potential for compassion satisfaction. The difference in the prevalence of compassion satisfaction between the teachers in the present study and the educators in Robinson's (2005) research is noteworthy, given the far higher risk of secondary traumatic stress within the current sample. The point that the educators in this study endorsed a fairly high potential for compassion satisfaction despite their extremely high risk of compassion fatigue supports prior research suggesting that compassion fatigue and compassion satisfaction can, and often do, coexist (Conrad & Kellar-Guenther, 2006; Stamm, 2002; Stamm, 2010). As was first observed by Stamm (2002), there appears to be equilibrium between compassion fatigue and compassion satisfaction, in which individuals may experience symptoms of secondary traumatic stress yet continue to feel that their work is helpful and meaningful.

Teachers in the current study also evidenced an above average overall vulnerability to burnout, with over 40% of the sample at high risk, and an additional 48.64% demonstrating a moderate risk. The fact that the sample exhibited a substantial propensity to burnout despite their above average potential for compassion satisfaction casts some doubt on Stamm's (2002, 2010)

hypothesis that burnout and compassion satisfaction are essentially opposing states. The results of the current study suggest that it is possible for some teachers to feel overwhelmed by systemic and organizational issues (i.e., burnout), yet still enjoy helping and teaching their students (i.e., compassion satisfaction). The dynamic relationship between these constructs will be described in greater detail in the discussion of the fourth hypothesis, and in the conclusion of this chapter.

Overall, the findings pertaining to burnout are aligned with the prevalence rates in the existing literature. Specifically, it has been estimated that 40 to 50% of educators will "burn out" over the course of their careers (Brock & Grady, 2000). Teachers working in high-poverty urban public schools appear to experience burnout at a faster rate than educators in other districts; 30 to 50% of urban public school teachers will leave the profession within three to five years (Brunetti, 2001; Stanford, 2001). That almost 90% of the educators in the current study exhibited a moderate to high risk of burnout highlights the significance of this problem, and underscores the urgent need for action.

The Relationship between Social Support, Compassion Fatigue, Compassion Satisfaction, and Burnout

The second research question explored the relationship between social support and compassion fatigue, burnout, and compassion satisfaction among urban public school teachers. Guided by Demerouti and colleagues' (2001) Job Demands-Resources (JD-R) model of occupational stress and growth, it was expected that the perception of social support would be associated with lower levels of compassion fatigue and burnout and with higher levels of compassion satisfaction. The Pearson product-moment correlation coefficients between the

variables confirmed these hypotheses. The strongest relationship was revealed to be between perceived social support and compassion fatigue. Specifically, teachers who reported having close relationships with people they could depend upon endorsed significantly fewer symptoms of secondary traumatic stress, such as nightmares and hypervigilance. This finding is consistent with previous studies showing that supportive relationships with friends, family, colleagues, and/or supervisors are associated with a lowered risk of secondary traumatization (Figley, 1995; Ortlepp & Friedman, 2002; Schauben & Frazier, 1995; Stamm, 2002; Stamm & Pearce, 1995). Similarly, a negative correlation was detected between social support and burnout. That is, teachers who felt more supported by others were less likely to report feelings of exhaustion, disconnection, and insensitivity towards their students. This finding complements existing literature indicating that social support is associated with lowered levels of occupational stress and burnout (Abel & Sewell, 1999; Dworkin et al., 2003; Russell, Altmeier, & Van Velzen, 1987; Tonder & Williams, 2009). These results highlight the importance of adequate social support in the management of secondary traumatic stress and burnout among urban public school educators.

The perception of social support also had a significant positive relationship with compassion satisfaction within the current sample. Teachers who perceived more support from others were more likely to report positive feelings about their ability to help their students. This finding parallels existing research showing that social support and compassion satisfaction are positively related (Cicognani, Pietrantonio, Palestini, & Pratti, 2009; Collins & Long, 2003; Killian, 2008; Ortlepp & Friedman, 2002), and suggests that social support may be a significant factor in the maintenance of work satisfaction among teachers in urban public schools.

The relationships between social support and compassion fatigue, burnout, and compassion satisfaction that emerged in the present study are consistent with the principles of the JD-R model. This theory asserts that job resources like social support can minimize the damaging impact of workplace stressors and reduce the risk of negative outcomes. Within the current research, the relationships between social support and teachers' lowered risk of compassion fatigue and burnout suggest that supportive relationships may lessen educators' vulnerability to the development of both traumatic and work-related stress responses. Secondly, the JD-R model posits that job resources are motivational factors that foster increased work engagement and dedication (Demerouti et al., 2001; Hakanen et al., 2006). In the present sample, the perception of social support was associated with increased compassion satisfaction, which supports the idea of social support as a "condition resource" – a resource that can increase access to other resources, such as an enhanced sense of self-efficacy (Hobfoll & Shirom, 2000).

Predictors of Compassion Fatigue in High-Poverty Urban Public School Teachers

The third research question pertained to the demographic, traumatic, and environmental predictors of compassion fatigue. Based on the existing secondary traumatic stress literature, it was expected that work experience, personal trauma history, secondary traumatic stress exposure, and occupational stress related to workload, time management, discipline and motivation, professional distress, and professional investment would predict compassion fatigue. According to the results of a standard multiple regression analysis, only exposure to secondary trauma and occupational stress related to time management and workload increased teachers' risk of compassion fatigue. Contrary to expectations, teachers' work experience, personal trauma

history, and stress related to discipline and motivation, professional distress, and professional investment were not significantly related to their compassion fatigue risk.

The relationship between secondary traumatic stress exposure and the development of compassion fatigue is well-established (Birck, 2001; Boscarino et al., 2004; Creamer & Liddle, 2005; Killian, 2008; Meadors et al., 2009; Meyers & Cornille, 2002; Sprang et al., 2007). Consequently, it was expected that teachers in the current sample who had more contact with traumatized students would evidence a higher risk of compassion fatigue. Nevertheless, this finding offers a unique contribution to the existing literature, as the connection between educators' secondary traumatic stress exposure and compassion fatigue risk has never before been studied. The current research provides insight into urban public school educators' high degree of exposure to secondary trauma and their consequent vulnerability to compassion fatigue syndrome.

Stress related to time management and work demands were also found to be significant predictors of compassion fatigue risk within the current study. Specifically, teachers who indicated that they often put aside their personal needs, over-committed themselves, and felt overwhelmed by what they needed to accomplish were more likely to experience compassion fatigue. This result is consistent with existing literature that indicates that one's capacity to maintain work-life balance is directly related to one's risk of secondary traumatic stress (Boscarino, Figley, & Adams, 2004; Creamer & Liddle, 2005; 1995, 2002a; Cerney, 1995; Meyers & Cornille, 2002; Killian, 2008). There are a couple of potential interpretations for this finding. First, it may be that teachers who are over-worked and who engage in limited self-care are simply more vulnerable to the development of all kinds of stress responses, including

compassion fatigue. Secondly, it is possible that there is a common thread linking work-life balance and compassion fatigue: emotional engagement. As was previously noted by Figley (2002a) and Cerney (1995), individuals who are emotionally involved in their work are likely to experience deep levels of empathy with those they are trying to help, but may also have difficulty maintaining their personal and professional boundaries in the process. In the current study, it may be that the teachers who felt most empathically engaged with their traumatized students were the same educators who tend to sacrifice self-care and balance in their efforts to make a difference. This combination of emotional involvement and poor work-life balance may then set the stage for the development of compassion fatigue.

Unexpectedly, there was no predictive relationship between occupational stress related to discipline and motivation, professional investment, or professional distress and compassion fatigue within the current study. In other words, teachers who were more frustrated with their students' behavior within the classroom, who perceived themselves as receiving less recognition or financial compensation than they deserved, and who saw limited opportunities for professional development were not significantly more likely to experience compassion fatigue symptoms. As suggested by previous literature and the present research, compassion fatigue primarily stems from one's exposure to and engagement with traumatized individuals. It may be that concerns about student behavior and professional growth, while stressful, play a limited role in teachers' involvement with secondary trauma and their subsequent risk of compassion fatigue.

The absence of a relationship between years of experience and compassion fatigue is an unexpected finding that nonetheless has basis in the literature. While several prior studies have found that less experienced workers are more vulnerable to the development of secondary

traumatic stress (Cunningham, 2003; Way, Van Deuson, Martin, Applegate & Jandle, 2004), others have detected no relationship (Neumann & Gamble, 1995) or a conditional relationship (Pearlman & MacIain, 1995) between work experience and compassion fatigue. For example, Pearlman and MacIain (1995) found that less experienced therapists endorsed more trauma-related distress, but only if they also had a history of personal trauma and received minimal supervision. In the present study, it is possible that the substantial degree of perceived social support and compassion satisfaction reported by participants buffered against the potential effects of inexperience.

The lack of a relationship between trauma history and compassion fatigue stands in contrast to the majority of the existing research, which has found that survivors of traumatic events are at an increased risk of developing compassion fatigue when exposed to secondary traumatic stress (Adams et al., 2006; Cunningham, 2003; Figley, 1995; Kassam-Adams, 1999; Nelson-Gardell & Harris, 2003; Pearlman & MacIain, 1995; Williams & Sommer, 1995). However, the current result parallels the findings of Schauben and Frazier (1995), who detected no increase in psychological distress among sexual violence counselors who were themselves survivors of traumatic events. Instead, the authors reported that survivor-counselors felt that they learned about themselves through their interactions with clients, and were better able to heal from their own victimization experiences as a result.

The concept of posttraumatic growth provides a useful framework for understanding the absence of a relationship between personal trauma history and compassion fatigue within the present study. According to Tedeschi and Calhoun (2004), after surviving a traumatic experience, individuals consciously and unconsciously strive to make meaning of the event. In

the process, trauma survivors often exhibit the potential for positive and lasting psychological development across a number of dimensions, such as increased empathy and awareness of one's resiliency (Tedeschi & Calhoun, 2004). While these positive psychological changes do not eliminate the negative consequences of trauma, they may play a protective role when a survivor is confronted with additional traumatic experiences (Tedeschi & McNally, 2011). Within the current sample, it is possible that the positive aspects of surviving trauma provided a counterbalance for the negative consequences, reducing the likelihood that teachers with a personal trauma history would be "re-traumatized" by their work with students. More research into the role of posttraumatic growth in the development of compassion fatigue is warranted.

Predictors of Burnout in High Poverty Urban Public School Teachers

The fourth hypothesis proposed that years of experience and occupational stress related to workload, time management, discipline and motivation, professional investment, and professional distress would predict burnout. The results of a standard multiple regression analysis indicated that stress related to workload and discipline and motivation were significant predictors of burnout. In addition, the age of participants was revealed to be an unanticipated demographic predictor of burnout within the sample.

In the present research, stress related to workload was revealed to be a robust predictor of burnout. While the relationship between work demands and teacher burnout has been well-established in the literature (Griffith et al., 1999; Hakanen et al., 2006; Kokkinos, 2007; Malanowski & Wood, 1984; Tonder & Williams, 2009;), only one prior study has empirically examined the relationship between workload and burnout among urban school teachers (Abel &

Sewell, 1999). In this study, Abel and Sewell (1999) found that work conditions (which encompassed workload) were the most significant source of stress for rural educators. Notably, this study was conducted prior to the enactment of NCLB; recent research suggests that standards-based school reform has been associated with significant escalations in paperwork and test preparation for urban public school teachers (Gentry, 2006; Louis, Febey, & Schroder, 2005). As such, it is probable that the work demands experienced by urban public school teachers have only increased since Abel and Sewell's (1999) study.

Stress pertaining to discipline and motivation also predicted burnout among the teachers in the present research. Teachers' perceptions of student misbehavior and lack of motivation have long been identified as significant predictors of burnout (Griffith, Steptoe, & Cropley, 1999; Hakanen et al., 2006; Lopez, Santiago, Godas, Castro, Villardefrancos, & Ponte, 2008; Kokkinos, 2007; Manassero et al., 2006; Tonder & Williams, 2009; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010), particularly among urban educators (Abel & Sewell, 1999). As hypothesized by Lopez and colleagues (2008) and Kokkinos (2007), it may be that teachers' daily efforts to maintain order in the classroom and to motivate students are not only exhausting, but potentially undermining of educators' sense of self-efficacy. Both exhaustion and an eroded belief in oneself as a teacher may in turn contribute to burnout risk among teachers.

As with work demands, changes in the work environment stemming from NCLB may have amplified teachers' stress related to discipline and motivation. Increasing numbers of students with emotional and behavioral problems, including aggressive or hyperactive behavior, are being retained in general education classrooms (Rosenberg, Sindelar, & Hardman, 2004). The needs of these students may exceed the expertise of general education teachers, who are

nonetheless held accountable for their academic performance (Rosenberg et al., 2004). Furthermore, the high-stakes testing associated with NCLB has been shown to have a detrimental impact on some students' motivation to learn (Meece, Anderman, & Anderman, 2006; Roderick & Engel, 2001; Smyth, 2008). Urban public school teachers, themselves under tremendous pressure to "teach to the test," may have limited flexibility to implement teaching strategies that are tailored to the needs of individual students (Smyth, 2008). As such, it is possible that these contextual factors played a role in the strong relationship between burnout and disciplinary and motivational issues within the current sample.

In the present study, older teachers were less likely to experience symptoms of burnout, while younger teachers exhibited an increased burnout risk. While unexpected, these findings are congruent with previous literature suggesting that younger workers are more likely than older workers to experience burnout symptoms (Griffith et al., 1999; Schwartzer, 2008; Lau et al., 2005). There are a couple of possible explanations for this finding. Age is typically associated with years of overall work experience (Maslach et al., 2001); it may be that older teachers have developed stronger coping skills, self-efficacy, and other resources that may protect them against the development of burnout. Alternatively, as suggested by Maslach, Schaufeli, and Leiter (2001), it is possible that survival bias may be a factor. That is, older teachers who develop symptoms of burnout may be more likely to depart the field, leaving behind resilient "survivors" who demonstrate fewer symptoms of burnout. In the current study, it is plausible that a combination of those two explanations was at work.

As time management has historically been promoted as a means of preventing and coping with burnout (Kossack & Woods, 1980), it is noteworthy that no predictive relationship between

time management and burnout emerged in the current study. In other words, teachers who indicated that they were rushed, over-committed, and who took less time to address their own needs were not significantly more likely to experience burnout. While unexpected, this finding is aligned with research by Macan (1996), who found that time management training had no significant effect on employees' work-related stress or performance. It may be that when teachers feel overwhelmed by excessive paperwork and stressors in the classroom, commonly proposed solutions like taking breaks during the day do little to counter the progression of burnout. This result highlights the importance of directly addressing the systemic and environmental stressors that contribute to teacher burnout, as opposed to assuming that improved time management skills will enable educators to withstand mounting pressures in the workplace.

Unexpectedly, stress related to professional investment and professional distress were not significant predictors of burnout within the current sample. In other words, educators' perceptions of their decision-making power, status, and opportunities for development had no significant influence on their burnout risk in the present research. This finding is consistent with Maslach and colleagues (2001) conceptualization of control, autonomy, and perceived respect as job resources as opposed to job demands. Maslach and colleagues (2000) further assert that the absence of these resources is correlated with burnout, but only weakly. In contrast, tangible job demands, such as workload, are strongly predictive of burnout (Abel & Sewell, 1999; Hakanen, Bakker, & Schaufeli, 2006; Kokkinos, 2007; Maslach et al., 2001; Schwab, Jackson, & Schuler, 1986).

However, the importance of establishing respectful, empowering work environments should not be minimized by this finding, as organizational interventions designed to foster

fairness and equity have been shown to be effective in reducing emotional exhaustion associated with burnout (Maslach et al., 2001; Van Dierendonck, Schaufeli, & Buunk, 1998).

The Role of Compassion Fatigue and Compassion Satisfaction in Burnout

Fifth, it was hypothesized that compassion fatigue and compassion satisfaction would predict burnout among teachers working in an urban public school, over and above the effects of personal characteristics and environmental stressors. As hypothesized, the results of a hierarchical multiple regression analysis showed that compassion fatigue and compassion satisfaction explained additional variance in burnout, over demographic factors and stress variables. Specifically, teachers who endorsed more symptoms of compassion fatigue evidenced a greater burnout risk, and teachers who exhibited a greater potential for compassion satisfaction were less vulnerable to burnout.

While no prior studies have examined the role of compassion fatigue in teacher burnout, previous researchers have hypothesized that unaddressed secondary traumatic stress symptoms might make individuals more susceptible to burnout (Farrenkoph, 1992; Maytum et al., 2004). For example, in Farrenkoph's (1992) research on traumatic stress responses among therapists working with sex offenders, the author identified a cluster of symptoms that are congruent with our current conceptualization of secondary traumatic stress (e.g., heightened empathy, vulnerability, and hypervigilance) and theorized that these symptoms laid the foundation for job burnout. A similar relationship between compassion fatigue and burnout was detected in Maytum and colleagues' (2004) qualitative study of compassion fatigue and burnout among pediatric nurses. Specifically, the authors found that unaddressed symptoms of compassion

fatigue, which were described by the participants as "a part of everyday life" (p. 174, Maytum et al., 2004), could develop into burnout, viewed as the point "where you are almost beyond your ability to cope" (p. 174, Maytum et al., 2004). The present research builds upon Farrenkopf's (1992) and Maytum and colleagues (2004) work, and underscores the importance of identifying and managing compassion fatigue among urban public school educators, as symptoms of secondary traumatic stress appear to significantly escalate the risk of burnout within this population.

While compassion fatigue played a vital role in the development of teacher burnout within the current study, it is important to note that engaging with traumatized students did not. The burgeoning literature on the role of "emotion work" in burnout provides a valuable framework for these findings (Brotheridge & Grandey, 2002; Chang, 2009; Hochschild, 1983; Zapf, Seifert, Schmutte, Mertino, & Holtz, 2001). Previous researchers have found that intense and frequent emotional interactions in the workplace do not escalate one's risk of burnout, and may actually be associated with higher levels of personal efficacy and accomplishment (Brotheridge & Grandey, 2002; Zapf et al., 2001). However, efforts to suppress one's negative emotional responses and to feign positive feeling states have been shown to predict burnout, over the influence of organizational and social stressors (Brotheridge & Grandey, 2002; Zapf et al., 2001). Given this research, it is plausible that the "natural consequent behaviors and emotions" (Figley, 1995, p. 7) that are associated with compassion fatigue (e.g., anxiety and fear) may not have inherently increased teachers' burnout risk. Rather, as suggested by Brotheridge and Grandey (2002), it may be that attempts to avoid and repress these feelings contributed to emotional exhaustion and depersonalization – two core dimensions of burnout.

Of all the relationships tested in the present study, the association between compassion satisfaction and burnout was the strongest. The more that educators felt that their work was meaningful and that they were good at their job, the less likely they were to feel drained, disconnected, or otherwise “burned out.” Although the role of compassion satisfaction in teacher burnout has not been studied before, this result parallels studies of other professional groups suggesting that compassion satisfaction plays a powerful protective role in the development of burnout symptoms (Conrad & Kellar-Guenther, 2006; Stamm, 2002; Stamm, 2010).

Theoretically, the relationship between compassion satisfaction and burnout that was demonstrated in the current research is consistent with the JD-R model of burnout (Demerouti et al., 2001). Specifically, Demerouti and colleagues asserted that job resources may act as a cushion between workplace stressors and job burnout. Resources appear to protect against burnout at least two ways, by changing the manner in which individuals perceive sources of stress in their environment (Bakker et al., 2005) and by fostering motivation and work engagement (Hakanen et al., 2006). In the current study, compassion satisfaction was revealed to be a powerful resource for teachers. As suggested by Bakker and colleagues (2005), teachers with high levels of satisfaction in their work may have been better able to maintain a healthy perspective regarding everyday stressors, thus reducing the negative impact of workplace stress. Simultaneously, teachers with high levels of compassion satisfaction may have felt more engaged and energized by their work, which shielded them from feeling “burned out.” (Hakanen et al., 2006).

Limitations

The findings of the current research should be viewed within the context of several limitations. The first pertains to the study's suboptimal response rate, which raises concerns about the representation of the sample. Approximately 20% of the teachers who were invited to contribute to the study chose to participate, and due to a technical mishap that occurred in the early stages of data collection the effective response rate was approximately 16 percent. In Baruch and Holtom's (2008) analysis of 1607 studies published in refereed academic journals, the average response rate for web-based surveys ranged from 10.6 to 69.5%, with a mean of thirty-nine percent. The authors recommended that response rates falling below one standard deviation (15.1) of the average should be briefly contextualized. In the current study, the response rate of 20.63% is more than one standard deviation below the mean established by Baruch and Holtom (2008), and warrants explanation.

Aside from technical error, there are a number of recruitment-related issues that may have contributed to the low response rate in the study. The school-based email addresses that were utilized were available in the public domain, and may not have been the preferred mode of contact for many potential participants. Almost 25% ($n = 217$) of the invitation emails bounced back; it is not possible to determine how many of the emails that were delivered were filtered out as junk mail or spam. Furthermore, there is no way to determine how many of the teachers who received the email utilized their school-based account during the data collection period. The response rate may have been improved by in-person recruitment efforts, in which potential participants could have been given information about the study and could have had the opportunity to provide the researcher with their preferred contact information. The timing of the

study is another factor that may have limited the response rate. Invitations were emailed to potential participants in mid-June, in the final weeks of the school year. Teachers were likely to be very busy during this period, and may not have had the time or energy to complete even a brief survey. If data had been collected during another point in the school year, it is possible that more teachers would have been able to participate.

The teachers who elected to participate in the study despite these challenges may not have been representative of the larger population of interest, or even of the smaller subset of Newark public school educators. As noted by Whitley (2002), people who volunteer to participate in research may differ from those who do not volunteer in a number of ways, including interest in the study's subject. This concern is heightened by the study's use of self-report measures, which are associated with higher incidences of social desirability bias (Whitley, 2002). Thus, as with any survey, generalization of the results should be explained with caution.

Finally, while this study explored a wide range of variables that contribute to compassion fatigue, compassion satisfaction, and burnout among urban public school educators, the focus of the study was on the teachers and their immediate working environment. There are many systemic issues, such as poverty, school reform efforts, and budget cuts that were largely outside of the scope of the present research. Further empirical investigation into the impact of these factors on well-being of educators is warranted.

Clinical Implications

Despite these limitations, the results of the current study have significant clinical implications. The present research reveals that teachers who work in high-poverty urban school

districts are at a high risk of compassion fatigue, which in turn increases their vulnerability to burnout. Unfortunately, despite the prevalence of these issues among educators, few teachers receive any training in how to work effectively with traumatized children (Brenner-Katz, 2006; Johnson, 1998), and how to protect themselves in the process. One way that counseling and clinical psychologists, social workers, and other mental health professionals can help is by providing psychoeducational workshops to public school educators and administrators. Such trainings should offer information about childhood trauma, raise awareness of compassion fatigue, burnout, and compassion satisfaction, and provide strategies for self-care.

Interventions with teachers who are experiencing compassion fatigue should emphasize that the syndrome is a common “cost of caring” (Figley, 1995) and encourage the development of a healthy work-life balance. For teachers, this may mean saying “no” to additional commitments, taking breaks throughout the day, and nurturing one’s hobbies and interests outside of teaching. Trauma-focused therapeutic work may also be useful to address specific symptoms, such as avoidance or hypervigilance. It is important to note that individuals with compassion fatigue do not typically need to leave their work environment; rather, they are generally able to make adjustments that improve their quality of life within the workplace (Stamm, 2010). In contrast, individuals who present with high levels of burnout, or a combination of burnout and compassion fatigue, may need a sabbatical or change in their work assignments. Screening for concomitant depression and PTSD is vital in these cases (Stamm, 2010).

For all high-poverty urban public school educators, social support appears to protect against burnout and compassion fatigue while fostering compassion satisfaction. It is strongly

recommended that educators develop and nurture connections with their friends, family, co-workers, and supervisors. As younger teachers appear to be more vulnerable to the development of burnout, mentoring relationships between younger and more experienced educators may be of benefit. The establishment of supportive teacher groups is also recommended, as this would provide opportunities for educators to give and receive feedback, normalize their emotional responses, and engage in collective problem-solving. Psychologists, social workers, and related mental health professionals may serve a vital role in this process by facilitating groups and creating a “safe space” for educators to share their thoughts, feelings, and experiences.

Lastly, as many of the issues that are addressed in the present study have their roots in socioeconomic inequality, counseling psychologists are encouraged to make a positive impact through social and political advocacy. The American Psychological Association’s (APA) Task Force on Urban Psychology (TUFPP) (2006) has recommended that psychologists partner with organizations that are grounded in the lives of urban communities, such as commissions, boards, and places of worship, to address concerns related to educational inequality and violence. In terms of policy, the current research underscores the need for modifications in the current approach to school reform. Psychologists are encouraged to become active in the public policy process (APA, 2006), as decisions are made each day that have far-reaching effects on children living in high-poverty urban areas, and on the teachers who play a central role in their lives.

Recommendations for Future Research

The goal of the current research was to increase our awareness and understanding of compassion fatigue, compassion satisfaction, and burnout among public school educators

teaching in high-poverty city schools. While this study highlights the significance of these issues and identifies several personal and environmental contributing factors, many areas of inquiry remain. First, the present research was conducted with public school teachers in a single urban school district. It is recommended that future studies of educator burnout, compassion fatigue, and compassion satisfaction survey more geographically diverse populations of teachers.

Sampling teachers from different types of schools (e.g., public, private, charter) would also add to our understanding of the environmental factors that may influence the development of work-related and secondary traumatic stress responses among educators. An examination of the potential differences between teachers of different grade levels is also warranted. In addition, research addressing the impact of school reform efforts (i.e., NCLB) on the psychological and vocational functioning of low-income urban public school teachers is strongly encouraged.

Secondly, the present study identified a limited number of variables that may protect high-poverty urban public school teachers against the development of compassion fatigue and burnout while enhancing compassion satisfaction. It is recommended that future research expand on these findings by exploring the influence of factors such as personality traits (e.g., hardiness), coping strategies (e.g., humor), and empathy. A more detailed inquiry into the relationship between various sources and types of social support and the development of teacher burnout and secondary traumatic stress is also warranted.

In conclusion, this research highlighted some of the many challenges associated with teaching in low-income urban environments, as well as the considerable rewards. Despite limitations, it is hoped that this study will encourage further research and the development of clinical interventions to maximize compassion satisfaction, manage compassion fatigue, and

prevent burnout among the extraordinary population of educators who work in high-poverty urban public schools.

References

- Abel, M. H., & Sewell, J. (1999). Stress and burnout in rural and urban secondary school teachers. *The Journal of Educational Research*, 92 (5), 287-293.
- Abendroth, M., & Flannery, J. (2006). Predicting the risk of compassion fatigue: A study of hospice nurses. *Journal of Hospice and Palliative Nursing*, 8 (6), 346-356.
- Adams R. E., Boscarino, J. A., & Figley, C. R. (2006). Compassion fatigue and psychological distress among social workers: A validation study. *American Journal of Orthopsychiatry*, 76, 103-108.
- American Psychiatric Association (APA). (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., Text Rev.). Washington, DC: Author.
- American Psychological Association. (2006). *Report of the APA: Task Force on Urban Psychology: Toward an urban psychology: Research, action, and policy*. Retrieved on January 21, 2012, from <http://www.apa.org/pi/ses/resources/publications/urban-taskforce.pdf>.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13, 209-223.
- Baird, S. & Jenkins, S.R. (2003). Vicarious traumatization, secondary traumatic stress, and burnout in sexual assault and domestic violence agency staff. *Violence and Victims*, 18(1), 71-86.
- Bakker, A.B., Demerouti, E., & Euwema, M.C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10, 170-180.
- Bakker, A.B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management*, 43, 83-104.
- Bakker, A.B., Schaufeli, W.B., Demerouti, E., Janssen, P.P.M, Van der Hulst, R., & Brouwer, J. (2000). Using equity theory to examine the difference between burnout and depression. *Anxiety, Stress*

and Coping, 13, 247-268

- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress, 22*, 187-200.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*, 1139-1160.
- Batt, L., Kim, J., & Sunderman, G. L. (2005). *Limited English proficiency students: Increased accountability under NCLB*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Beaton, R.D., & Murphy, S. A. (1995). Working with people in crisis: Research implications. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary stress disorder in those who treat the traumatized* (pp. 51-81). Levittown: Brunner/Mazel.
- Bell, C. C. (1991). Traumatic stress and children in danger. *Journal of Health Care for the Poor and Underserved, 2*, 175-188.
- Bell, C. C., & Jenkins, E. J. (1993). Community violence and children on Chicago's southside. *Psychiatry, 56* (1), 46-54.
- Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society, 84*, 463-471.
- Benoit, L. G., Veach, P. M., & LeRoy, B. S. (2007). When you care enough to do your very best: Genetic counselor experiences of compassion fatigue. *Journal of Genetic Counseling, 16* (3), 299-312.
- Berman, S. L., Kurtines, W. M., Silverman, W. K., & Serafini, L. T. (1996) The impact of exposure to crime and violence on urban youth. *American Journal of*

Orthopsychiatry, 66 (3), 329-335.

Boscarino, J. A., Figley, C. R., & Adams, R. E. (2004). Compassion fatigue following the September 11 terrorist attacks: A study of secondary trauma among New York City social workers.

International Journal of Emergency Mental Health, 6, 57-66.

Borg, M. G., Riding, R. J., & Falzon, J. M. (1991). Stress in teaching: A study of occupational stress and its determinants, job satisfaction and career commitment among primary schoolteachers.

Educational Psychology, 11 (1), 59-75.

Birck, A. (2002). Secondary traumatization and burnout in professionals working with torture survivors. *Traumatology*, 32, 85-90.

Brenner-Katz, L. (2006). *Teacher training on issues of psychological trauma in children: Update*.

Retrieved March 1, 2012 from <http://www.realmedicinefoundation.org/initiative/update/teacher-training-on-issues-of-psychological-trauma-in-children-update-0>.

Breslau N., Wilcox H. C., Storr C. L., Lucia V.C., & Anthony J. C. (2004). Trauma exposure and posttraumatic stress disorder: a study of youths in urban America. *Journal of Urban Health*, 81 (4), 530-44.

Brewster, A., & Bowen, G. L. (2004). Teacher support and school engagement for Latino middle and high school students at-risk of school failure. *Child and Adolescent Social Work Journal*, 21, 47-67.

Bride, B. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work*, 51(2), 63-70.

Bride, B. E., Radney, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, 35, 155-163.

- Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C.R. (2003). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice, 13*, 1-16.
- Brissie, J. S., Hoover-Dempsey, K. V., & Bassler, O. C. (1988). Individual, situational contributors to teacher burnout. *Journal of Educational Research, 82*, 106-112.
- Brock, B. L., & Grady, M. L. (2000). *Rekindling the flame: Principals combating teacher burnout*. Thousand Oaks, CA: Corwin Press.
- Brotheridge, C. M., & Grandey, A. A. (2002). Emotional labor and burnout: Comparing two perspectives of "people work." *Journal of Vocational Behavior, 60*, 17-39.
- Brunetti, G. J. (2001). Why do they teach? A study of job satisfaction among long-term high school teachers. *Teacher Education Quarterly, 28* (3), 49-74.
- Burke, R.I., & Deszca, G. (1986). Correlates of psychological burnout phases among police officers. *Human Relations, 39*, 487-502.
- Burke, R. J., Greenglass, E. R., & Schwarzer, R. (1996). Predicting teacher burnout over time: Effects of stress, social support, and self-doubts on burnout and its consequences. *Anxiety, Stress, and Coping: An International Journal, 9*, 261-275.
- Calkins, A., Guenther, W., Belfiore, G., & Lash, D. (2007). *The turnaround challenge*. Boston, MA: Mass Insight Research and Education Institute.
- Cantrell, M., & Lupinacci, P. (2007). Investigating the determinants of health-related quality of life among childhood cancer survivors. *Journal of Advanced Nursing, 60* (5), 544-549.
- Catherall, D. (1995). Coping with secondary traumatic stress: The importance of the professional peer group. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 80-92). Lutherville, MD: Sidran.

- Cedoline, A. J. (1982). *Job burnout in public education: Symptoms, causes, and survival skills*. Teachers College, Columbia University.
- Cerney, M. (1995). Treating therapists with vicarious traumatization and secondary traumatic stress disorders. In C. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 131–149). New York: Brunner/Mazel.
- Chang, M. L. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review*, 21, 193-218.
- Chrestman, K. R. (1999). Secondary exposure to trauma and self-reported distress among therapists. In B.H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*, (pp. 29-36). Lutherville, MD: Sidran Press.
- Cicognani, E., Pietrantonio, L., Palastini, L., & Prati, G. (2009). Emergency workers' quality of life: The protective role of sense of community, efficacy beliefs and coping strategies. *Springer*, 94, 449-463.
- Chang, M., & Davis, H. A. (2009). Understanding the role of teacher appraisals in shaping the dynamics of their relationships with students: Deconstructing teachers' judgments of disruptive behavior/students. In P. A. Schutz & M. Zemblyas (Eds.) *Advances in teacher emotion research: The impact on teachers' lives*. Springer-Verlag.
- Collins, S., & Long, A. (2003). Working with the psychological effects of trauma: Consequences for mental health-care workers- a literature review. *Journal of Psychiatric and Mental Health Nursing*, 10, 417-424.
- Conrad, D., & Kellar-Guenther, Y. (2006). Compassion fatigue, burnout, and compassion satisfaction among Colorado child protection workers. *Child Abuse and Neglect*, 30 (10), 1071-1080.

- Cooley-Quille, M., Boyd, R. C., Frantz, E., & Walsh, J. (2001). Emotional and behavioral impact of exposure to community violence in inner-city adolescents. *Journal of Clinical Child Psychology, 30*, 199-206.
- Cordes, C. L., & Dougherty, T.W. (1993). A review and integration of research on job burnout. *Academy of management review, 18* (4), 621-656.
- Cornell, S. & Hartmann, D (2007). *Ethnicity and race: Making identities in a changing world*. Thousand Oaks, CA: Pine Forge Press.
- Cornille, T. A., & Meyers, T.W. (1999). Secondary traumatic stress among child protective service workers: Prevalence, severity, and predictive factors. *Traumatology, 5*, 1-17.
- Creamer, T. L., & Liddle, B. J. (2005). Secondary traumatic stress among disaster mental health workers responding to the September 11 attacks. *Journal of Traumatic Stress, 18* (1), 89–96.
- Cromer, L. D., Freyd, J. J., Binder, A. K., DePrince, A. P., & Becker-Blease, K. (2006). What's the risk in asking? Participant reaction to trauma history questions compared with reaction to other personal questions. *Ethics and Behavior, 16* (4), 347-362.
- Cunningham, M. (2003). Impact of trauma work on social work clinicians: Empirical findings. *Social Work, 48*, 451–458.
- Cutrona, C. E. (1984). Social support and stress in the transition to parenthood. *Journal of Abnormal Psychology, 93* (4), 378-390.
- Cutrona, C. E., & Russell, D. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp. 37-67). Greenwich, CT: JAI Press.
- Cutrona, C.E., Russell, D., & Rose, J. (1986). Social support and adaptation to stress by the elderly.

Psychology and Aging, 1, 47-54.

Daly, A. J., & Chrispeels, J. H. (2005). From problem to possibility: Leadership for implementing and deepening the processes of Effective Schools. *Journal for Effective Schools*, 4 (1), 7-25.

Darling-Hammond, L. (2007). Standards, Accountability, and School Reform. In Christine Sleeter (ed.), *Facing Accountability in Education: Democracy and Equity at Risk*, pp. 78-111). New York, NY: Teachers College Press.

Darling-Hammond, L., & Friedlaender, D. (2008). Creating excellent and equitable schools. *Reshaping High Schools*, 65 (8), 14-21.

De Bellis, M. D., Hooper, S. R., Woolley, D. P., & Shenk, C. E. (2009). Demographic, maltreatment, and neurobiological correlates of PTSD symptoms in children and adolescents. *Journal of Pediatric Psychology*, 35 (5), 570-577.

Deighton, R. M., Gurriss, N., & Traue, H. (2007). Factors affecting burnout and compassion fatigue in psychotherapists treating torture survivors: Is the therapist's attitude to working through trauma relevant? *Journal of Traumatic Stress*, 20, 63-75.

Delaney-Black, V., Covington, C., Ondersma, S., Nordstrom-Klee, B., Templin, T., Ager, J., et al. (2002). Violence exposure, trauma, and IQ and/or reading deficits among urban children. *Archives of Pediatrics & Adolescent Medicine*, 156(3), 280-285.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands – resources model of burnout. *Journal of Applied Psychology*, 86 (3), 499 – 512.

Devilley, G. J., Wright, R., & Varker, T. (2009). Vicarious trauma, secondary traumatic stress or simply burnout? Effect of trauma therapy on mental health professionals. *Australian & New Zealand Journal of Psychiatry*, 43(4), 373-385.

- Dominguez-Gomez, E., & Rutledge, D. N. (2009). Prevalence of secondary traumatic stress among emergency nurses. *Journal of Emergency Nurses, 25* (3), 199-204.
- Drake, B., & Yadama, G. N. (1996) A structural equation model of burnout and job exit among child protective service workers, *Social Work Research, 20*, 179-187.
- DuRant, R. H., Pendergrast, R. A., & Cadenhead, C. (1994) Exposure to violence and victimization and fighting behavior by urban black adolescents. *Journal of Adolescent Health, 15* (4), 311-318.
- Dworkin, A. G., Haney, C. A., Dworkin, R. J., & Teleschow, R. L. (1990). Stress and Illness behavior among urban public school teachers. *Educational Administration Quarterly, 26* (1), 60-72.
- Dworkin, G.A., Saha, L.J. & Hill, A.N. (2003). Teacher burnout and perceptions of a democratic school environment. *International Education Journal, 4*(2),108 – 121.
- Etzion, D. (1987) Burning out in management: A comparison of women and men in matched organizational positions. *Israel Social Science Research Journal, 5*(1&2),147-163.
- Empathy. (2010). In *Merriam-Webster.com*. Retrieved on May 8, 2010, from <http://www.merriam-webster.com/dictionary/empathy>.
- Farber, B. A. (2000). Treatment strategies for different types of teacher burnout. *Journal of Clinical Psychology, 56*, 675-689.
- Farrenkopf, T. (1992). What happens to therapists who work with sex offenders? *Journal of Offender Rehabilitation, 18* (3/4), 217-223.
- Faul, F., Erdfelder, E., Lang, A.G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.
- Fenlason, K.J. & Beehr, T.A. (1994). Social Support and Occupational Stress: Effects of Talking to

Others. *Journal of Organizational Behavior*, 15:157-175.

Figley, C. R. (1989). *Helping Traumatized Families*. San Francisco: Jossey-Bass.

Figley, C. R. (Ed.) (1995). *Compassion fatigue: Coping with secondary stress disorder in those who treat the traumatized*. Levittown: Brunner/Mazel.

Figley, C.R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*, (pp. 3-28). Lutherville, MD: Sidran Press.

Figley, C. R. (2002a). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology*, 58, 1433-1441.

Figley, C. R. (Ed.) (2002b). *Treating compassion fatigue*. New York: Brunner-Routledge.

Figley, C.R. (Ed.) (2005). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner-Routledge.

Figley, C. R., & Nelson, T. (1989). Basic family therapy skills, I: Conceptualization and initial findings. *Journal of Marital and Family Therapy*, 15 (4), 211-130.

Figley, C. R., & Stamm, B. H. (1996). Psychometric review of compassion fatigue self test. In B. H. Stamm (Ed.), *Measurement of stress, trauma and adaptation* (pp. 127-128). Lutherville, MD: Sidran Press.

Fimian, M. J. (1982). What is teacher stress? *The Clearing House*, 56, 10, 1-106.

Fimian, M. J. (1984). The development of an instrument to measure occupational stress in teachers: The Teacher Stress Inventory. *The British Journal of Occupational Psychology*, 57, 277-293.

Fimian, M. J. (1985a). The development of an instrument to measure occupational stress in teachers of exceptional students. *Techniques: Journal for Remedial Education and Counseling*, 1, 270-285.

- Fimian, M. J. (1986). Teacher stress: an expert appraisal. *Psychology in the Schools, 24*, 5-14.
- Fimian, M. J. (1987). The alternate-forms and alpha reliability of the Teacher Stress Inventory. *Psychology in the Schools, 24*, 234-236.
- Fimian, M. J. (1988). Predictors of classroom stress and burnout experienced by gifted and talented students. *Psychology in the Schools, 5* (4), 392-405
- Fimian, M. J., & Fastenau, P. S. (1989). The validity and reliability of the Teacher Stress Inventory: A re-analysis of aggregate data. *Journal of Organizational Behavior, 10*.
- Fimian, M. J., Zacherman, J., & McHardy, R. J. (1985). Substance abuse and teacher stress. *Journal of Drug Education, 15*, 139-155.
- Fitzpatrick, K. M., & Boldizar, J. P. (1993). The prevalence and consequences of exposure to violence among African-American youth. *Journal of the American Academy of Child & Adolescent Psychiatry, 32* (2), 424-430.
- Follette, V. M., Polusny, M. M., & Milbeck, K. (1994). Mental health and law enforcement professionals: Trauma history, psychological symptoms, and impact of providing services to child sexual abuse survivors. *Professional Psychology: Research and Practice, 25*, 275-282.
- Frank, D. I., & Karioth, S. P. (2006). Measuring compassion fatigue in public health nurses providing assistance to hurricane victims. *Southern Online Journal of Nursing Research, 4* (7).
- Freudenberger. H. J. (1974). Staff burn-out. *Journal of Social Issues, 30* (1), 159-165.
- Freudenberger. H. J. (1975). The staff burn-out syndrome in alternative institutions. *Psychotherapy: Theory, Research and Practice, 12* (1), 73-82.
- Friedman, I. A. (1991). High and low-burnout schools: School culture aspects of teacher burnout. *Journal of Educational Research, 84*, 325-333.

- Gentry, J. E., Baranowsky, A. B., & Dunning, K. (2002). ARP: The accelerated recovery program (ARP) for compassion fatigue. In C.R. Figley (Ed.), *Treating compassion fatigue* (pp. 123-137). New York: Brunner-Routledge.
- Gentry, M. (2006). No child left behind: Neglecting excellence. *Roepers Review*, 29, 24-27.
- Gorman-Smith, D., & Tolan, P. (1998). The role of exposure to community violence and developmental problems among inner-city youth. *Development and Psychopathology*, 10 (1), 101-116.
- Griffith J., Steptoe A., & Cropley, M. (1999). An investigation of coping strategies associated with job stress in teachers. *British Journal of Educational Psychology*, 69 (4), 517-531.
- Granello, D. H., & Wheaton, J. E. (2004). Online data collection: Strategies for Research. *Journal of Counseling & Development*, 82 (4), 387-393.
- Gray, M. J., Litz, B. T., Hsu, J. L. & Lombardo, T. W. (2004). The psychometric properties of the Life Events Checklist. *Assessment*, 11, 330-341.
- Geurts, S., Schaufeli, W., & De Jonge, J. (1998). Burnout and intention to leave among mental health-care professionals: A social psychological approach, *Journal of Social and Clinical Psychology*, 17, 341-362.
- Haberman, M. (1995). *Star teachers of children in poverty*. Indianapolis, IN: Kappa Delta Pi.
- Halbesleben, J. R. B. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, 91, 1134-1145.
- Hagge, S. L., & Waltman, K. (2007). Teachers' perceptions of NCLB: A multi-year study. Paper presented at the annual meeting of the Iowa Educational Research and Evaluation Association, Iowa City, IA.
- Hakanen, J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers.

Journal of School Psychology, 43, 495-513.

Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*, 224-241.

Halm, M. A. (2009). Hourly rounds: What does the evidence indicate? *American Journal of Critical Care, 18* (6), 581-584.

Herman, J. (1997). *Trauma and recovery: The aftermath of violence- from domestic abuse to political terror*. New York: Basic Books.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513-524.

Hobfoll, S. E. (2001). The Influence of culture, community, and the nested-self in the stress process: Advancing Conservation of Resources Theory. Lead article. *Applied Psychology, 50*, 337-370.

Hobfoll, S. E., and Freedy, J. (1993). Conservation of resources: A general theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.) *Professional burnout: Recent developments in theory and research*. (pp.115-135). New York: Taylor & Francis.

Hobfoll, S. E., Lily, R. S., & Jackson, A. P. (1992). Conservation of resources and the self. In H. O. F. Veiel & V. Baumann (Eds.), *The meaning and measurement of social support* (pp. 125-141). Washington, DC: Hemisphere Publishing Co.

Hobfoll, S. E., & Shirom, A. (2000). Conservation of resources theory: Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.) *Handbook of organization behavior* (2nd Rev. Ed, pp. 57-81). New York: Marcel Dekker.

Hock, R. R. (1988). Professional burnout among public school teachers. *Public Personnel Management,*

17 (2), 167-189.

- Hooper, C., Craig, J., Janvrin, D. R., Wetsel, M. A., Reimels, E., & Anderson, G. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing, 36*, 420-427
- Hochschild, A. R. (1983). *The managed heart: The commercialization of human feeling*. Berkeley, CA: University of California Press.
- Hylton, J. (1989). Ways to manage stress and avoid teacher burnout. *Music Educators Journal, 75*(6), 29-31.
- Iliffe, G. (2000). Exploring the counselor's experience of working with perpetrators and survivors of domestic violence. *Journal of Interpersonal Violence, 15*, 393-412.
- Janssen, P. M., Schaufeli, W. B., & Houkes, I. (1999). Work-related and individual determinants of the three burnout dimensions. *Work and Stress, 13*, 74-86.
- Jenkins, S. R., & Baird, S. (2002). Secondary traumatic stress and vicarious trauma: A validation study. *Journal of Traumatic Stress, 15*, 423-432.
- Johnson, K. (1998) *Trauma in the lives of children: Crisis and stress management for counselors, teachers, and their professionals*. Alameda, CA: Hunter House.
- Joinson, C. (1992). Coping with compassion fatigue. *Nursing, 22*, 116-121.
- Kadambi, M. A., & Truscott, D. (2004). Vicarious trauma among therapists working with sexual violence, cancer, and general practice. *Canadian Journal of Counselling, 38*, 260-276.
- Kahill, S. (1988). Interventions for burnout in the helping professions: A review of the empirical evidence. *Canadian Journal of Counselling Review, 22*, 310-342.

- Kahn, R. L., & Byosiere, P. (1992). Stress in organizations, In: Dunnette, MD and Hough, LM (Eds) *Handbook of Industrial and Organizational Psychology*, Vol. 3. (pp. 571-650). Palo Alto, CA: Consulting Psychologists Press.
- Kassam-Adams, N. (1999). The risks of treating sexual trauma: Stress and secondary trauma in psychotherapists. In B.H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators*, (pp. 37-48). Lutherville, MD: Sidran Press.
- Kees, N. L., & Lashwood, P. A. (1996). Compassion fatigue and school personnel: Remaining open to the affective needs of students. *Educational Horizons*, 75, 41-44.
- Killian, K. D. (2008) Helping till it hurts? A multimethod study of compassion fatigue, burnout, and self-care in clinicians working with trauma survivors. *Traumatology*, 14, 32-44.
- Kilpatrick, D.G., Acierno, R., Resnick, H.S., Saunders, B.E., & Best, C.L. (1997). A two-year longitudinal analysis of the relationship between violent assault and alcohol and drug use in women. *Journal of Consulting and Clinical Psychology*, 65(5), 834- 847.
- Klem, A.M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, 74, 262 – 273.
- Klinger, J.K., & Edwards, P.A. (2006). Cultural considerations with Response to Intervention models. *Reading Research Quarterly*, 41, 108-117.
- Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77 (1), 229-243.
- Kossack, S., & Woods, S. (1980). Teacher burnout: Diagnosis, prevention, and remediation. *Action in Teacher Education*, 2 (4), 29-36.
- Kozol, J. (2005). *The shame of the nation: The restoration of apartheid schooling in America*. New

York: Crown.

- Kubany, E. S., Haynes, S. N., Leisen, M. B., Owens, J. A., Kaplan, A. S., Watson, S. B., & Burns, K. (2000). Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment, 12*, 210-224.
- Kyriacou, C. (1989) The nature and prevalence of teacher stress, in M. Cole & S. Walker (eds) *Teaching and Stress*. Milton Keynes: Open University Press.
- Lau, P. S., Yuen, M. T., & Chan, R. M. C. (2005). Do demographic characteristics make a difference to burnout among Hong Kong secondary school teachers? *Social Indicators Research, 71*, 491-517.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leavy, R. L. (1983). Social support and psychological disorder: A review. *Journal of Community Psychology, 11*(1), 3–21.
- Lee, R. T., & Ashforth, B. E. (1990). On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology, 75*, 743-747.
- Legal Services of New Jersey. (2011). *Poverty benchmarks 2011: Assessing New Jersey's progress in combatting poverty*. Retrieved on February 23, 2012 from <http://www.lsnj.org/PDFs/budget/Benchmarks2011.pdf>.
- Lopez, J. M., Santiago, M. J., Godas, A., Castro, C., Villardefrancos, E., & Ponte, D. (2008). An integrative approach to burnout in secondary school teachers: Examining the role of student disruptive behavior and disciplinary issues. *International Journal of Psychology and Psychological Therapy, 8*, 259–270.
- Louis, K. S., Febey, K., & Schroeder, R. (2005). State-mandated accountability in high schools: Teachers' interpretations of a new era. *Educational Evaluation and*

Policy Analysis, 27 (2), 177-204.

Lynch, M., & Cicchetti, D. (1998). An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology*, 10 (2), 235-257.

Macan, T. A. (1996). Time-management training: Effects on time behaviors, attitudes, and job Performance. *The Journal of Psychology*, 130 (3), 229-36.

Malanowski, J. R., & Wood, P. H. (1984). Burnout and self-actualization in public school teachers. *Journal of Psychology*, 117, 23-26.

Mann, H. (1868). Twelfth annual report to the Massachusetts State Board of Education, 1848. In M. Mann (Ed.), *Life and Works of Horace Mann* (Vol. 3, p. 669). Boston: Walker, Fuller.

Manassero M., Garcia-Buades E., Torrens G., Ramis C., Vazquez A. & Ferrer V. A. (2006). Teacher burnout: Attributional aspects. *Psychology in Spain*, 10, 66-74.

Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.

Maslach, C. (1993). Burnout: A multi-dimensional approach. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout* (pp. 19-32). Washington, DC: Taylor & Francis.

Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied & Preventative Psychology*, 7 (1), 63-74.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.

Maslach, C., & Leiter, M.P. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.

Maslach, C. & Pines A. (1977). The burn-out syndrome in the day care setting. *Child Care Quarterly*, 7, 100-113.

- Maslach, C., & Schaufeli, W. B. (1993). Historical and conceptual development of burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout* (pp. 1-16). Washington, DC: Taylor & Francis.
- Maslach, C., Schaufeli, W. B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, *52*, 397-422.
- Maytum, J.C., Bielski-Heiman, M., & Garwick, A. (2004). Compassion fatigue and burnout in nurses who work with children with chronic conditions and their families. *Journal of Pediatric Health Care*, *18*, 171-179.
- Mazza, J. J., & Reynolds, W. M. (2001). An investigation of psychopathology in nonreferred suicidal and nonsuicidal adolescents. *Suicide and Life-Threatening Behaviors*, *31* (3), 282-302.
- McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, *3*, 131-149.
- Meadors, P., Lamson, A., Swanso, M., White, M., & Sira, N. (2009). Secondary traumatization in pediatric healthcare providers: Compassion fatigue, burnout, and secondary traumatic stress. *Omega: Journal of Death & Dying*, *60* (2), 103-128.
- Meece, J., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation, and academic achievement. *Annual Review of Psychology*, *57*, 505-528.
- Meldrum, L., King, R., & Spooner, D. (2002). STS in case managers working in community mental health services. In C. R. Figley (Ed.), *Treating compassion fatigue* (pp. 85-106). New York: Brunner-Routledge.
- Meyers, T. W., & Cornille, T. A. (2002). The trauma of working with traumatized children. In C. R.

- Figley (Ed.), *Treating compassion fatigue* (pp. 39-56). New York: Brunner-Routledge.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage.
- Mintrop, H., & Trujillo, T. (2005). Corrective action in low performing schools: Lessons for NCLB implementation from first-generation accountability systems. *Education Policy Analysis Archives*, 13 (48). Retrieved April 4, 2011 from <http://epaa.asu.edu/ojs/article/view/153>.
- Nelson-Gardell, D. & Harris, D. (2003). Childhood abuse history, secondary traumatic stress, and child welfare workers. *Child Welfare*, 82, 5–26
- Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious trauma in the new trauma therapist. *Psychotherapy*, 32 (2), 341-347.
- New Jersey Department of Education (NJDOE). The Newark Public Schools. Retrieved April 4, 2012, from <http://www.nps.k12.nj.us/22861071412143407/site/default.asp>.
- No Child Left Behind Act (NCLB) of 2001, Pub. L No. 107-110 § 115, Stat. 1425 (2002).
- Noguera, P. A., & Wells, L. (2011). The politics of school reform: A broader and bolder approach to Newark. *Berkeley Review of Education*, 2 (1), 5-25.
- Oakes, M. J. (2004). Investigating the claims in *Williams v. State of California*: An unconstitutional denial of education's basic tools? *Social Science & Medicine*, 58 (10), 1929-1952.
- O'Donnell, D. A., Schwab-Stone, M. E., & Muyeed, A. Z. (2002). Multidimensional resilience in urban children exposed to community violence. *Child Development*, 73, 1265–1282.
- Olivier, M. A. J., & Venter, D. J. L. (2003). The extent and causes of stress in teachers in the George region. *South African Journal of Education*, 23(3), 186-

192.

- Ortlepp, K., & Friedman, M. (2002). Prevalence and correlates of secondary traumatic stress in workplace lay trauma counselors. *Journal of Traumatic Stress, 15*, 213–222.
- Osofsky, J. D. (2003). Prevalence of children's exposure to domestic violence and child maltreatment: implications for intervention and prevention. *Clinical Child and Family Psychology Review, 6* (3), 161-170.
- Pearlman, L. A., & MacIain, P. S. (1995). Vicarious traumatization: An empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research and Practice, 26*, 558-565.
- Pearlman L., & Saakvitne, K. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York: WW Norton.
- Perron, B. E., & Hiltz, B. S. (2006). Burnout and secondary trauma among forensic interviewers of abused children. *Child and Adolescent Social Work Journal, 23* (2), 216-234.
- Pfifferling, J-H., & Gilley, K. (2000). Overcoming compassion fatigue. *Family Practice Management, 7*, 39-44.
- Pines, A. M. (2002). Teacher burnout: A psychodynamic existential perspective. *Teachers and Teaching: Theory and Practice, 8*, 121-140.
- Pines, A. M., & Aronson, E. (1988). *Career burnout: Causes and cures*. New York: Free Press.
- Pines, A., & Maslach, C. (1978). Characteristics of staff burn-out in mental health settings. *Hospital and Community Psychiatry, 29*, 233-7.
- Rainer, J. P. (2000). Compassion fatigue: When caregiving begins to hurt. In L. Vandecreek and T. L. Jackson (Eds.). *Innovations in clinical practice: A source book* (pp. 441-453). Sarasota, FL:

Professional Resource Press.

Raquepaw, J. M., & Miller, R. S. (1989). Psychotherapist burnout: A componential analysis.

Professional Psychology: Research and Practice, 20, 32-36.

Regehr, C., Hemsworth, D., Leslie, B., Howe, P., & Chau, S. (2004). Predictors of posttraumatic distress

in child welfare workers: A linear structural equation model. *Children and Youth Services*

Review, 26(4), 331-346.

Roberts, S. B., Flannelly, K. J., Weaver, A. J., & Figley, C. R. (2003). Compassion fatigue among chaplains, clergy, and other respondents after September 11th. *Journal of Nervous and Mental Disease*, 191, 756-758.

Robinson, B. C. (2005). Exploring career satisfaction, burnout, and compassion fatigue as indicators of

the quality of career engagement of public school educators. *Dissertation Abstracts*

International, AAT 3201740.

Roderick, M., & Engel, M., 2001. The grasshopper and the ant: Motivational responses of low-achieving

students to high-stakes testing. *Educational Evaluation and Policy Analysis* 23 (3), 197– 227.

Rosenberg, M. S., Sindelar, P. T., & Hardman, M. L.(2004). Preparing highly qualified teachers for

students with emotional and behavioral disorders: The impact of NCLB and IDEA. *Behavioral*

Disorders, 29, 266–278.

Rosenbloom, D. J., Pratt, A. C., & Pearlman, L. A. (1995). Helpers' responses to trauma work:

Understanding and intervening in an organization. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 65-79). Lutherville, MD:

Sidran.

Rosenbloom, D., & Williams, M.B. (1999). *Life after trauma: A workbook for healing*. New York:

Guilford.

- Rosenholtz, S. J., & Simpson, C. (1990). Workplace conditions and the rise and fall of teachers' commitment. *Sociology of Education*, 63, 241-257.
- Ross, R. R., Altmaier, E. M., & Russell, D. W. (1989). Job stress, social support, and burnout among counseling center staff. *Journal of Counseling Psychology*, 36, 464-470.
- Russell, D., Altmaier, E., & Van Velzen, D. (1987). Job related stress, social support, and burnout among classroom teachers. *Journal of Applied Psychology*, 72, 269-274.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The Revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472-480.
- Russell, D., & Cutrona, C. (1984, August). The provision of social relationships and adaptation to stress. Paper presented at the annual meeting of the American Psychological Association, Toronto, ON, Canada.
- Saakvitne, K., & Pearlman, L.A. (1996). *Transforming the pain: A workbook on vicarious traumatization for helping professionals who work with traumatized clients*. New York: W.W. Norton & Company.
- Saigh, P., Yasik, A., Oberfield, R., Halamandaris, P., & McHugh, M. (2002). An analysis of the internalizing and externalizing behaviors of traumatized urban youth with and without PTSD. *Journal of Abnormal Psychology*, 111, 462-470.
- Salston, M. D., & Figley, C.R. (2003). Secondary traumatic stress effects of working with survivors of criminal victimization. *Journal of Traumatic Stress*, 16, 167-174.
- Sarason, I. G., Sarason, B. R., & Pierce, G. R. (1995). Cognitive interference: At the intelligence-personality crossroads. In D. H. Saklofske & M. Zeidner (Eds.), *International handbook of*

personality and intelligence (pp. 285–296). New York: Plenum.

- Scarpa, A., Fikretoglu, D., Bowser, F., Hurley, J. D., Pappert, C. A., Romero, N., & Van Voorhees, E. (2002). Community violence exposure in university students: A replication and extension. *Journal of Interpersonal Violence, 17*, 253–272.
- Schauben, L., & Frazier, P. (1995). Vicarious trauma: The effects on female counselors of working with sexual violence survivors. *Psychology of Women Quarterly, 19*, 49-64.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293-315.
- Schaufeli, W. B., & Buunk, B. P. (1996). Professional burnout. In M. J. Schabracq, J. A. Winnubst, & C. L. Cooper (Eds.), *Handbook of work and health psychology* (pp. 3121-3146). Chichester, England: Wiley.
- Schaufeli, W., & Enzmann, D. (1998). *The Burnout Companion to Study and Practice: A critical analysis*. London: Taylor & Francis.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701-716.
- Schaufeli, W. B., Leiter, M. P. & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International, 14*, 204-220.
- Schwab, R. L., Jackson, S. E., & Schuler, R. S. (1986). Educator burnout: Sources and consequences. *Educator Research Quarterly, 10* (3), 14-30.
- Schwartz, D. & Proctor, L. (2000). Community violence exposure and children's social adjustment in the

- school peer group: The mediating roles of emotion regulation and social cognition. *Journal of Consulting and Clinical Psychology/American Psychological Association*, 68, 670-683.
- Seligman M. E. P. (1995). The effectiveness of psychotherapy: The Consumer Reports study. *American Psychologist*, 50, 965-74.
- Selye, H. (1976) *The Stress of life*. New York: McGraw-Hill.
- Sexton, L. (1999). Vicarious traumatisation of counsellors and effects on their workplaces. *British Journal of Guidance & Counselling*, 27, 393-403.
- Shakoor, B. H., & Chalmers, D. (1991). Co-victimization of African-American children who witness violence: Effects on cognitive, emotional, and behavioral development. *Journal of the National Medical Association*, 83 (3), 233-238.
- Shirom, A. (2005). Reflections on the study of burnout. *Work & Stress*, 19 (3), 263-270.
- Sirin, S. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research*, 75 (3), 417-453.
- Slattery, S.M. & Goodman, L.A. (2009). Secondary traumatic stress among domestic violence advocates: Workplace risk and protective factors. *Violence against Women*, 15, 1358-1379.
- Smyth, T. (2008). Who is No Child Left Behind leaving behind? *The Clearing House*, 81 (3), 133-137.
- Sprang, G., Clark, J. J., & Whitt-Woosely, A. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma: International Perspectives on Stress & Coping*, 12 (3), 259-280.
- SPSS. (2008). Statistical Package for the Social Sciences, Version 17.0. Chicago, IL: SPSS, Inc.
- Stamm, B. H. (1997). Work-related secondary traumatic stress. *PTSD Research Quarterly*, 8, 1-3.
- Stamm, B. H. (1999). *Secondary traumatic stress: Self-care issues for clinicians, researchers, and*

educators. Lutherville: Sidran Press.

Stamm, B. H. (2002). Measuring compassion satisfaction as well as fatigue: Developmental history of the compassion satisfaction and fatigue test. In C. R. Figley (Ed.). *Treating compassion fatigue* (pp. 107-119). New York: Brunner-Routledge.

Stamm, B. H. (2010). *The concise ProQOL Manual*. Retrieved June 22, 2010 from http://www.proqol.org/uploads/ProQOL_Concise_2ndEd_12-2010.pdf.

Stamm, B. H., & Pearce, F. W. (1995). Creating virtual community: Telemedicine and self care. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 179-207). Lutherville, MD: Sidran Press.

Stanford, B. H. (2001). Reflections of resilient, persevering urban teachers. *Teacher Education Quarterly*, 28, 75-87.

Sunderman, G. L., Tracey, C. A., Kim, J., & Orfield, G. (2004). *Listening to teachers: Classroom realities and No Child Left Behind*. Cambridge, MA: The Civil Rights Project at Harvard University.

Sunderman, G. L., & Orfield, G. (2008). Massive responsibilities and limited resources: The state response to NCLB. In G. Sunderman (Ed.), *Holding NCLB accountable: Achieving accountability, equity, and school reform*. Thousand Oaks, CA: Corwin Press.

Tabachnick, B., & Fidell, L. (2001). *Using multivariate statistics*. Needham Heights: Allyn & Bacon.

Tedeschi, R. G., & Calhoun, L. G. (2004). Post-traumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15, 1-18.

Tedeschi, R. G., & McNally, R. J. (2011). Can we facilitate posttraumatic growth in combat veterans?

American Psychologist, 66, 19–24.

Tatar, M., & Yahav, V. (1999). 'Secondary school pupils' perceptions of burnout among teachers.

British Journal of Educational Psychology, 69, 457–68.

Tonder, C. L., & Williams, C. (2009). Exploring the origins of burnout among secondary educators.

Journal of Industrial Psychology, 35 (1), 1-15.

Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehavior and emotional exhaustion: the importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, 30 (2), 173-189.

Uehara, E. S. (1996). African American youth encounters with violence: Results from the Community Mental Health Council Violence Screening Project. *Journal of Black Studies*, 26 (6), 768-781.

U.S. Census Bureau. (2009). *State and county quickfacts: Newark, NJ*. Retrieved on February 23, 2012 from <http://quickfacts.census.gov/qfd/states/34/3451000.html>.

U.S. Department of Education, National Center for Education Statistics. (2007). *The Condition of Education 2007* (NCES 2007-064). Washington, DC: U.S. Government Printing Office.

Valent, P. (2002). Diagnosis and treatment of helper stresses, traumas, and illnesses. In C. Figley (Ed.), *Treating compassion fatigue* (pp. 17-37). New York: Brunner - Routledge.

Vandenberghe, R. & Huberman, M. (Eds.) (1999), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 223-237). New York: Cambridge University Press.

VanBergeijk, E., & Sarmiento, T. (2006). The consequences of reporting child maltreatment: Are school personnel at risk for secondary traumatic stress? *Brief Treatment and Crisis Intervention*, 6 (1),

79-98.

- Van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. (1998). The Evaluation of an Individual Burnout Intervention Program: The Role of Inequity and Social Support. *Journal of Applied Psychology, 83* (3), 392–407.
- Van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. (2001) Towards a Process Model of Burnout: Results from a Secondary Analysis. *European Journal of Work and Organizational Psychology, 10* (1), 41–52.
- Van Horn, J. E., Schaufeli, W. B., & Enzmann, D. (1999). Teacher burnout and lack of reciprocity. *Journal of Applied Social Psychology, 29*, 91-108.
- Violanti, J. M., & Gehrke, A. (2004). Police trauma encounters: Precursors of compassion fatigue. *International Journal of Emergency Mental Health, 6*, 75-80.
- Wachsmuth, B.G. (2011). *Asset: Academic Survey System and Evaluation Tool*. Retrieved April 5, 2012, from <http://sciris.shu.edu/thinklets/General/Asset/Asset2.3.6a/asset-manual.pdf>.
- Way, I., VanDeusen, K. M., Matin, G., Applegate, B., & Jandle, D. (2004). Vicarious trauma: A comparison of clinicians who treat survivors of sexual abuse and sexual offenders. *Journal of Interpersonal Violence, 19* (1), 49-71.
- Wee, D., & Myers, D. (2003). Compassion satisfaction, compassion fatigue, and critical incident stress management. *International Journal of Emergency Mental Health, 5* (1), 33-37.
- Williams, M. B., & Sommer, J. F. (1999). Self-care and the vulnerable therapist. In B. H. Stamm (Ed.), *Secondary Traumatic Stress: Self-care issues for clinicians, researchers, and educators* (pp. 230-246). Lutherville, MD: Sidran Press.
- Weisberg, J., & Sagie, A. (1999). Teachers' physical, mental and emotional burnout:

Impact on intention to quit. *The Journal of Psychology*, 133, 333-339.

Weiss, R. (1973). *Loneliness: The Experience of Emotional and Social Isolation*. The Massachusetts Institute of Technology Press: Cambridge.

Whitley (2002). *Principles of research in behavioral science (2nd ed.)* New York: McGraw-Hill.

Yost, D. S. (2006). Reflection and self-efficacy: Enhancing the retention of qualified teachers from a teacher education perspective. *Teacher Education Quarterly*, 33(4), 59-74.

Zapf, D., Seifert, C., Schmutte, B., Mertini, H., & Holz, M. (2001). Emotion work and job stressors and their effects on burnout. *Psychology and Health*, 16, 527-545.

Appendix A
Recruitment Letter

Dear Colleague,

You are being invited to participate in research by Shannon Abraham-Cook, M.A., under the supervision of Laura K. Palmer, Ph.D. Ms. Abraham-Cook and Dr. Palmer are affiliated with the Counseling Psychology Department in Seton Hall University's College of Education and Human Services.

Purpose and Duration of the Research

The purpose of the study is threefold:

1. To determine the degree to which teachers in urban public schools are experiencing compassion fatigue, compassion satisfaction, and burnout;
2. To identify factors (e.g., social support) that may have an impact on the development of compassion fatigue, compassion satisfaction, and burnout among urban public school teachers; and,
3. To improve our understanding of the relationship between compassion fatigue, compassion satisfaction, and burnout.

Your participation in this study will take approximately 15 to 20 minutes of your time.

Procedures

In this study, you will be asked to complete an online survey. Background information, such as sex, race, marital status, employment, and trauma history, will be collected. Questions on the survey will also inquire about your feelings about being a teacher, the possible stressors you may experience as a teacher, and how supported you feel by other people.

Instruments

The following instruments are included in the study:

- The Professional Quality of Life Scale – Version 5 (Stamm, 2010) measures the positive and negative effects of working with individuals who have experienced a trauma. Sample items include: “I get satisfaction from being able to teach people” and “I feel overwhelmed because my workload seems endless.”
- The Teacher Concerns Inventory (Fimian, 1984) assesses the occupational stressors experienced by American public school teachers. Sample items include: “There isn't enough time to get things done” and “My caseload/class is too big.”
- The Social Provisions Scale (Russell & Cutrona, 1984) assesses levels of perceived social support. Sample items include, “there are people I can depend on to help me if I really need it” and “I feel that I do not have close personal relationships with other people.”

Voluntary Participation

Participation in this study is completely voluntary. You may choose not to participate. If you decide to participate, you can withdraw from the study at any time without negative

consequences.

Anonymity

Participation in this study is anonymous. You will not be required to include your name or any other identifying information on any materials included in the study. All responses will be analyzed for group patterns only; no names or identifying information will be revealed.

Confidentiality

All data will be kept confidential. Survey data will be stored electronically on a USB memory key that will be kept in a locked drawer. The only individuals who will have access to the data are Ms. Abraham-Cook and Dr. Palmer.

Risks

There are no anticipated risks associated with participation in this study. There is, however, the potential for some psychological discomfort given the focus of the surveys. If you find that your participation in the study causes you distress for which you might like some assistance, please consult the counseling resources provided below.

- National Mental Health Association Information Center (1-800-969-6642) will put you in touch with your local Mental Health Association, who will help you find community mental health services and self-help support groups.
- National Suicide Prevention Lifeline (1-800-273-TALK/8255) is a free, 24-hour hotline available to anyone who is thinking about suicide or in emotional distress.
- Rape, Abuse, and Incest National Network (1-800-656-4673) is a free, 24-hour hotline that provides services for survivors of sexual assault.

Benefits

There are no direct benefits associated with participation in this study. It is hoped, however, that the information gathered will increase our understanding of compassion fatigue, compassion satisfaction, and burnout among educators working in urban public schools. This information may assist in the development of interventions to reduce the risk of work-related stress responses in public school educators.

Contact Information

If you have any questions about the research or about your rights as a research participant, please contact any of the following:

Principal Investigator

Shannon Abraham-Cook, M.A.
(862) 576 - 2736
mckaycsh@shu.edu
Seton Hall University

Faculty Advisor

Laura K. Palmer, Ph.D.
(973) 761-9449
palmerla@shu.edu
Seton Hall University

Jubilee Hall – PPFT
400 South Orange Ave.
South Orange, NJ 07079

Seton Hall Institutional Review Board
(973) 313-6314
irb@shu.edu
Presidents Hall Rm. 325
Seton Hall University
400 South Orange Ave.
South Orange, NJ 07079

Jubilee Hall - PPFT
400 South Orange Ave.
South Orange, NJ 07079

Newark Public Schools Institutional
Review Board
(973) 733-6437
FAtchison@nps.k12.nj.us
2 Cedar Street, Office 909
Newark, NJ 07102

Consent to Participate

Your consent to participate is indicated by the completion of the online surveys. You are encouraged to print out a copy of this informed consent form for your records.

Appendix B
Demographic Questionnaire

Demographic Questionnaire

- 1) Age: _____
- 2) Gender: _____
- 3) Race/Ethnicity:
- _____ Black/ African American
 - _____ Hispanic/ Latino
 - _____ White/ Caucasian
 - _____ Asian
 - _____ Other
- 4) Relationship Status:
- _____ Married
 - _____ Cohabiting
 - _____ In a relationship
 - _____ Single
- 5) Number of Years in Field of Education: _____
- 6) Employment Status: _____ full-time _____ part-time _____ substitute
- 7) Highest Level of Education Attained:
- _____ High School Diploma/GED
 - _____ Bachelor's degree
 - _____ Master's degree
 - _____ Doctoral degree
 - _____ Other (specify): _____

For questions 10 – 12, please refer to the definition of “traumatic event” provided below:

- A) A personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity.**

Examples: Violent personal assault (sexual assault, physical attack, robbery, mugging), natural or manmade disasters, severe automobile accidents, being diagnosed with a life-threatening illness, being kidnapped, being taken hostage, military combat, terrorist attack, torture, or incarceration as a prisoner of war or in a concentration camp.

- B) Witnessing an event that involves death, injury, or a threat to the physical integrity of another person**

Examples: Observing the serious injury or unnatural death of another person due to violent assault, accident, war, or disaster or unexpectedly witnessing a dead body.

C) *Learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate.*

Examples: Learning about a violent personal assault, serious accident, or serious injury experienced by a family member or a close friend; learning about the sudden, unexpected death of a family member or a close friend; or learning that one's family member or close friend has a life-threatening disease.

10) On a scale of 0 (*None*) to 4 (*All*), what proportion of the students you work with have experienced a traumatic event?

0	1	2	3	4
None	Few	Some	Most	All

11) On a scale of 0 (*Never*) to 5 (*Daily*), approximately how often do you directly address students' traumatic experiences? (e.g., Talk with a student about a traumatic event; Make an effort to provide resources to a student or the student's family members who have experienced a traumatic event; contact the Division of Youth and Family Services or other professionals in regard to a student's traumatic event)?

0	1	2	3	4	5
Never	Once per school year	Once per quarter	Monthly	Weekly	Daily

12) On a scale of 0 (*None*) to 4 (*Four or more*), how many traumatic events have you personally experienced in your lifetime?

0	1	2	3	4
None	One	Two	Three	Four or more

