THE IMPACT OF ADVERSE CHILDHOOD EXPERIENCES AND FORGIVENESS ON NURSES' CAPACITY FOR COMPASSION SATISFACTION

Dissertation

Submitted to

College of Nursing and Allied Health

Southern University and A & M College

In Partial Fulfillment of the Requirements for

The Doctor of Philosophy

Degree in Nursing

by

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Baton Rouge, Louisiana

May 2018

THE GRADUATE SCHOOL
Southern University and A&M College
Baton Rouge, Louisiana

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DISSERTATION TITLE
Impact of Adverse Childhood Experiences and Forgiveness on Nurses' Capacity for Compassion Satisfaction

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Revised June 2017

THE IMPACT OF ADVERSE CHILDHOOD EXPERIENCES AND FORGIVENESS ON NURSES' CAPACITY FOR COMPASSION SATISFACTION

ABSTRACT

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Aims and objectives. To examine the relationship between Adverse Childhood Experiences (ACEs), *forgiveness* and *compassion satisfaction* in nurses. In addition, the study sought to determine the impact of *forgiveness*, as a moderator on the relationship of *adverse childhood experiences* and *compassion satisfaction*. Lastly, this study explored which demographic characteristics serve as predictors of forgiveness and *compassion satisfaction* in a select population of nurses.

Background. There is limited research to date that has identified or measured the ramifications of the personal traumas that were experienced by nurses prior to their choice to enter the profession of nursing. As well, there is also a paucity of research on the role of nurses' present personal forgiveness ability on their compassion satisfaction ability, after the inevitably diverse childhood experiences of abuse they may have experienced.

Design. A descriptive, correlational research study was used to establish the relationship of ACEs to nurses' present forgiveness ability and compassion satisfaction.

Methods. The target population for this study was a purposive, convenience sample of nurses (N= 255) who received surveys online. Family nurse practitioner students who were enrolled in clinical courses in their graduate program of studies and nurses who were members of a southern state nurses' organization were recruited. Snowballing methods were also used to recruit additional nurses who meet the eligibility criteria of working at least six months.

Results. Statistically significant correlations were found between the demographic variables of age, gender, and educational status with adverse childhood experiences. Of interest, one-half (51%) of the N=255 nurses who answered the survey, were in the moderate or high categories for ACEs which was defined as two or higher adverse experiences before eighteen years of age. Of these nurses, 23.5 % were in the category of high, which was defined as four or more ACES before the age of 18. Past adverse childhood experiences correlated with *forgiveness of self* and *situation and total forgiveness* but not with *forgiveness of others.*

The demographic variables (education and marital status) accounted for 7.5% of the variation in *compassion satisfaction.* Including *forgiveness of situation* added 16. 4% to the explained variability, representing a significant gain in *compassion satisfaction*. The demographic variable of race, with African American nurses as the predictor, explained 11.5% of the variation in *self-forgiveness*.

Conclusions. The academic accomplishments of this population of nurses, despite 50 % having experienced multiple childhood adversities, suggests a role for resilience.

The ACE category that participants fell into accounted for their forgiveness ability. Those married or educated at the AD/diploma level were the highest on the compassion satisfaction score. Findings from this study have relevant implications for nursing education, nursing practice, and health policy. Adverse childhood experiences occur with an incidence and prevalence that cannot be ignored. ACEs require that healing processes be initiated to mitigate the long-term outcomes of physical, spiritual, psychological and mental suffering, that are not the inevitable cost, if addressed.

Relevance to clinical practice. The dignity of the non-reducible human being, the nurse, was the focus for this study. The call to self-care in the nurse, as they attend to their past traumas, requires shame free acknowledgement of their injuries, as the first step toward healing. Early trauma, as reflected in high ACEs, had a negative impact on self-forgiveness in participants in this study. Yet forgiveness, in these participants, continued to contribute to their derived compassion satisfaction, as they ministered to their patients. Nursing must take the lead in caring for our own, with the same enthusiasm and determination with which our profession has approached each historical challenge for others.

DEDICATION

I dedicate this work to: honoring God, as he has invited us to forgive others, as we faithfully receive His forgiveness; my parents, Nancy and Jerry Troy, my first role models of living forgiveness, as they are happily married for 63 years; and my six siblings, as they gave me my first exercises in receiving and granting unconditional forgiveness. In addition, I give thanks for my son Ryan Gonski and daughter Leah Marino, as they are the blessings of my youth. Additionally, I was blessed with my son in law Benton and daughter in law Kathryn, both answers to prayers. Finally, I celebrate and dedicate this work to the joys of my "Mimi" years, my precious beans: Molly, Graham and Emma and any other angels in heaven waiting to join us.

ACKNOWLEDGEMENTS

I thought that writing this last page would feel wonderfully freeing. There is instead an unexpected sense of awe. I am grateful to have survived the dubious new skills I have managed to face throughout this incredible journey. The journey began five years ago when I was instructed to avoid the spiritual, in providing care for a child requiring an assessment for physical abuse. I felt compelled from that point of redirection, to explore the connection of the non-reducible heart and soul of nursing or holistically caring for our patients, as well as ourselves. Along this ever-shifting journey, there have been mentors with great wisdom and patience. Dr. Cheryl Taylor steered me from the rocky cliffs I teetered on, as I attempted to reign in my thoughts and aspirations. Clarity did not come without great struggle. Dr. Taylor was always there to inspire, nurture, and fortify.

Dr. Sandra Brown courageously took me on for the high tides, as I pondered and discerned myself into stagnation. She kept me afloat. Then she set me free by her gentle tugging me onwards, with just the right combination of encouragement and ease. I would not have completed this work without her.

I am eternally grateful to my committee members, Dr. Joan Ellis, Dr. Wanda Spurlock and Dr. Roy Salgado. I believe I had the most incredibly capable members, who brought together their talented collection of good will and expertise to assist me and guide me. Their suggestions and support will forever ring in my ears.

Ryan and Leah helped me to re-embrace math and strategically asked me about my research progress. My sisters Regina Yeager and Monica Dillon, as always, were and are my rocks. My parents and brother Matt prayed me through every snag and detour.

Luanna Roy painted me a picture of St. Theresa for inspiration and attempted to keep me exercising, as I otherwise would have lived a timeless urgency that pushed out the mundane. Marty Duffy, my dear cousin, called me weekly from New York to give me great laughter and perspective on life, as he followed this journey to the very end.

My classmates Rene Potter and Tonda Martin kept me in the proverbial loop, that I so easily wandered out of, as they reminded me of deadlines and signatures needed, even if it required that they gave up their own lunch time to assist me.

Dr. Delinda Martin ensured I met job deadlines, when all my head could hold was this work. At the height of my stress, she assumed extra work on herself to allow me the energy to think and undistractedly focus. Dr. Pat Prechter released me from work expectations to help drive my cortisol levels down. The support from the University of Holy Cross was evident and remarkable from the date of my hire.

My loving friends Dr. Betty Bennett, Dr. Susan and Michael Rick would not ever let me doubt that this could and would be a page I wrote one day. I am eternally grateful for their love and encouragement.

TABLE OF CONTENTS

LIST OF FIGURES

Page

LIST OF TABLES

PAGE

CHAPTER I

INTRODUCTION

Adverse Childhood Experiences (ACEs) research defined as neglect, abuse or witness to family dysfunction before the age of 18, has become a focus of study since 1998 (Felitti et al.,1998). The findings in the neurobiology of stress and resiliency and epigenetics have correlated adverse childhood experiences with long-term adult biomedical consequences including what were previously thought of as unrelated illnesses of cancer, diabetes and autoimmune diseases. The research points to the need for acknowledgement of these impacts on health and active attention to fostering trauma informed care to facilitate healing from past challenges (Dong, Anda, Felitti, Dube, Williamson, Thompson, & Giles, 2004; Felitti et al., 1998; Hughes, 2004). Nurses are called to assess for these factors in their patients often without having been encouraged to assess for these very same experiences in themselves (McConnell, 2015). Adverse childhood experiences served as a construct in this study, as an independent variable. The impact of ACEs on nurses' ability to sustain caring was explored in this study.

Having honestly assessed for these adverse experiences, a person is left with the challenge of forgiving self, others and situations to move forward and experience peace and consciousness (Berry, Worthington, O'Connor, Parrott, & Wade, 2005). Thus, forgiveness is relational, including a relation to self and other and community (Fehr, Gelfand, & Nag, 2010). Forgiveness has philosophical and moral importance, as well as

having historically great religious importance (Davis, Worthington, Hook, & Hill, 2013). Additionally, women's studies have addressed the issue of gender and power when exploring the complex construct of forgiveness (Norlock, 2009). The variable of forgiveness in this study, was evaluated in terms of its impact on the dependent variable of compassion satisfaction, as it was experienced by nurses, as a consequence of the provision of nursing care. As well, forgiveness as a buffer, on the ability to sustain caring after adverse childhood experiences, was explored.

The last construct addressed in this study was compassion satisfaction. Compassion satisfaction, or the ability of nurses to feel energized by the care provider role, as opposed to drained or fatigued, has been found in several studies to be positively correlated to work group cohesion and the organizational commitment to the nurses themselves (Li, Early, Mahrer, Klaristenfeld, & Gold, 2014; Stamm, 2002). The amount of compassion provided in nursing care is influenced by the ability of the individual nurse to provide compassionate care to themselves as well (Dunn, 2012). Self-compassion has been identified as self-kindness, a subset of forgiveness, and a requirement for recognizing the common humanity of all people (Neff, 2003). Thus, self- compassion capacity is directly related to personal health of nurses and their patients. Compassion satisfaction was the outcome dependent variable of interest in this study.

Statement of the Problem

Previous studies on compassion satisfaction and fatigue (Coetzee & Klopper, 2010; Dunn, 2012; Figley, 1995; Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010; Mascaro, Rilling, Negri, & Raison, 2012; Stamm, 2002) have focused on work environments and work relationships. There is limited research to date that has identified

or measured the ramifications of the personal traumas that were experienced by nurses prior to their choice to enter the profession of nursing. There is also a paucity of research on the role of nurses' present personal forgiveness ability, as a mediator or moderator regarding their compassion ability, after the inevitably diverse childhood experiences of abuse they may have experienced. A mediator of a construct explains the manner or "how" variables are related, thus how forgiveness influences compassion ability. A moderator acts to increase or decrease the impact of one variable on another or namely for this study, begs the question of how much buffering influence forgiveness wields on lived adversity (Hayes, 2009). Moreover, there are no published studies to date that have examined the relationship of adverse childhood experiences, forgiveness and compassion satisfaction collectively within a population of students, as they matriculate in a graduate nursing program within a historically Black college and University setting.

Purpose of the Study

The overarching purpose of this study was to 1) examine the relationship between Adverse Childhood Experiences, forgiveness and compassion satisfaction in nurses. In addition, the study sought to 2) determine the impact of forgiveness, as a moderator on the relationship of adverse childhood experiences and compassion satisfaction. Lastly, 3) this study explored which demographic characteristics serve as predictors of forgiveness and compassion satisfaction in a select population of nurses.

Significance of the Study to Nursing

It is anticipated that the projected nursing shortage may have a toll on nurses if they do not possess the ability to balance their lives and care for themselves with compassion in the process of responding to these new demands (Collins & Long, 2003).

As new skills are required, and the pace of seeing patients increases, the physical workload will continue to mount (Gittell, 2009). The spiritual and psychological toll has yet to be determined.

In addition, research driven changes in screening for victims of violence have been made to the routine assessments of all patients from clinics to schools to emergency rooms (Hornor, 2015). Despite this acknowledgment of the incidence and prevalence of abuse at a societal and personal level, attention to the significance of the personally experienced trauma of the nurses has been avoided. A *leave your personal troubles at the door* mentality has traditionally been accepted in educational and clinical settings (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). Exposure to the suffering of patients may fall on the framework of untreated past trauma of the nurse, thus compounding the stress. Compassion fatigue or compassion satisfaction may be the outcome, as determined by the influence of both past experiences of the nurse and the mediating and moderating impact of variables yet to be fully determined (Stamm, 2002). Those who have suffered from various traumas have been vocal in the role of forgiveness as a means to healing (Worthington, 2005).

Politically, there have been calls for an understanding of the role of forgiveness on health outcomes after trauma, and as such, the very future of communities, cities, and countries are dependent on addressing issues of forgiveness (Tutu, 1999). The established links between forgiveness and physical and mental health in the forgiver, has encouraged the research of forgiveness in the less traditional and less historically spiritual disciplines. Psychology, genetics, philosophy, holistic healing and social justice all have something to

gain in knowledge advancement in the understanding of this construct (Fehr, Gelfand, & Nag, 2010; Worthington, 2005).

Research Questions

The research questions addressed by this study were:

1. Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and adverse childhood experiences (ACEs), compassion satisfaction, and forgiveness in a select population of nurses?
2. Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) are significant predictors of forgiveness and compassion satisfaction in a select population of nurses?
3. Is there a relationship between past adverse childhood experiences and nurses' present trait forgiveness and compassion satisfaction among a select population of nurses?
4. Does the present trait of forgiveness moderate the impact of past Adverse Childhood Experiences on a select population of nurses' capacity for experiencing compassion satisfaction? If so, to what extent does forgiveness ability moderate the impact of ACEs on compassion satisfaction?
5. What is the relationship of forgiveness to compassion satisfaction when controlling for ACEs among a select population of nurses?

6. Is there a relationship between past ACEs and preferred choice of employment specialty among a select population of nurses?

Research Variables

For the purpose of this study, the dependent variable was compassion satisfaction. The independent variables were the Adverse Childhood Experiences (ACEs) and forgiveness. A regression model was used to ascertain the effect of the trait of forgiveness and the three subscales of self, other and forgiveness of situation on compassion satisfaction. Seven demographic variables were correlated with the constructs as well, as participants were asked their age, race, gender, marital status, educational level, specialty clinical area, and years of practice.

Definitions of Terms

Definitions for this research study were based on the review of literature to operationalize the constructs and provide the basis for justifying the meaning of variables for this study. The following conceptual and operational definitions were utilized in this study:

Nurse

Conceptual. Nursing is a human science requiring authentic, interpersonal interactions, as well as holistic assessments of those cared for, as they move along an illness health continuum. These professional interactions are mediated by personal, as well as scientific ways of knowing (Watson, 2012).

Operational. For the purposes of this study, nurse included both male and females registered to practice nursing, living in a southern state, who have worked as a nurse for at least six months.

Adverse Childhood Experiences

Conceptual. In a concept analysis, that clarified the terms adverse childhood experiences for nursing research, the authors concluded after an extensive review of the literature, that these experiences occur in the context of family and social environments. These experiences, though different acts of commission and omission, have in common the: perception of the events by the child as harmful traumas, an outcome of distress varying in severity, and potential for damaging effects in a cumulative impact that may not be seen until later (Kalmakis & Chandler, 2014).

Operational. The adverse childhood experiences in this study refer to the ten variables utilized in the Adverse Childhood Experiences study, which is an epidemiology of childhood trauma research previously conducted in California at Kaiser Permanente from 1995-1997 with more than 17,000 participants (Felitti et al., 1998). For the original study purposes, adverse experiences were divided into three main categories: (1) Abuse, (2) Neglect, and (3) Household Dysfunction. The cumulative abuse category was further divided into emotional, physical, and sexual abuse all of which had to have happened before the participants 18th birthday. The abuse had to have occurred often or always for some categories. Neglect was subdivided into emotional and physical neglect. Neglect included: not being treated as if wanted or special, failure to receive needed medical care, deprivation in clothing and food. Household dysfunction was divided into five categories: (1) the child witnessing their mother being treated violently (exposure to domestic abuse only with mother as victim), (2) household substance abuse of any adult, (3) household mental illness, including attempted suicide, (4) parental separation or divorce, and (5) incarceration of a household member. Sexual abuse was defined as any person, at least

five years older, touching the child in a sexual way before the child's eighteenth birthday. Some ACE categories were adapted from the Conflict Tactics Scale and the Child Trauma Questionnaire (Bernstein, Fink, Handelsman, Foote, Lovejoy, Wenzel, & Ruggiero 1994; Strauss & Gelles, 1990). The sexual abuse questions were based on the earlier work of Wyatt in research conducted with African American and Caucasian American women (1985).

For the purpose of this study, adverse childhood experiences included any of the following ten experiences prior to the 18th birthday:1) being insulted or put down or treated in any way that lead to fear of being physically hurt, 2) being pushed or slapped hard enough to leave marks, 3) being touched by a person five years older in a sexual way including but not limited to oral, anal and vaginal intercourse, 4) felt unloved or not close to others in the family sufficiently long enough to believe family didn't look out for each other, 5) denied clean clothing or enough food or medical attention when required, due to parents being impaired,6) having resided in home where parents ever separated or divorced,7) ever witnessed a mother or stepmom being pushed, slapped, or hit with a hand or object or weapon, 8) ever lived with anyone who was a problem drinker or drug abuser, 9) lived with a household member with mental illness including depression or suicidality, 10) ever had a household member mandated to prison. The prior ten questions are directly from the Adverse Childhood Experiences Survey (Felitti et al., 1998). The scores therefore ranged from *no* or zero points to *yes* or one point with a total maximum of ten.

Forgiveness

Conceptual. Despite a lack of researchers' agreement on the construct of forgiveness there is consensus that it does not involve forgetting. Dispositional forgiveness or forgivingness is the tendency to forgive interpersonal transgressions over time and across situations, as a typical pattern of motivation and cognitive and affective response (Berry, Worthington, O'Connor, Parrott, Wade, 2005).

Operational. In this study, the *trait* of forgiveness and not the *state* of forgiveness was the focus. Forgiveness by this definition does not require benevolence toward the transgressor but includes self and situations as entities requiring and deserving of forgiveness (Thompson & Snyder, 2003). Forgiveness does not imply that justice will not be pursued, yet only that the motivation for the pursuit is not vengeful (Thompson & Snyder, 2003).

Various definitions of forgiveness have been suggested by researchers in the field; this study did not focus on *seeking* forgiveness but rather the tendency to *grant* forgiveness (Enright, 1996; Worthington, 2005). Forgiveness focused on the healing work needed when a known transgressor had caused the trauma. Included in the definition forgiveness involves: the relief from negative emotional responses around the memory, the releasing of the transgressor from owing anything in restitution, the surrendering of intent of the victim to retaliate (Berry et al., 2005; Noll, 2005; Tangney, Boone, & Dearing, 2005). It is important to note that in all the research to date, forgiveness does not include excusing or condoning or justifying the injury sustained. Forgiveness is not synonymous with reconciliation, though in some cases may entail it. In

fact, premature forgiving around these issues may set one up for re-victimization (Engel, 1991).

For the purpose of this study, the *Heartland Forgiveness Scale* (Thompson & Synder, 2003) was used to measure dispositional forgiveness with an 18- item test. It has three subscales to evaluate forgiveness potential to self, others and situations. Half of the questions test forgiveness or neutral attachment to the transgression and half screen for traits of unforgiveness or negative attachment to the transgression.

On a 7-point Likert scale of number 1 "*Almost always false for me"* to number 7 or *"Almost always true for me",* participants describe their general tendency to hold grudges, get over things, understand and accept their mistakes and those of others, and punish themselves and others after an event. They are asked to respond how they typically approach self or others after a transgression. Love and compassion are not included in this definition rather just cognitive- affective changes after a transgression, whereby a decision is made to let go of the debt owed. The consequence is that a person may pursue justice without a feeling of revenge (Thompson & Synder, 2003).

The HFS allows a comprehensive measure of this dispositional tendency to grant forgiveness to self and others and is *intra*-personal (Thompson & Snyder, 2003). The nine negatively scored items were reversed scored and it is the most comprehensive tool available to measure forgiveness tendency. A score of 18-54 indicates that one is usually unforgiving of self, others and situations. A score of 55-89 indicates that one is just as likely to forgive as not forgive self, others and situations; a score of 90-126 one is usually forgiving of self, others and situations.

Compassion Satisfaction

Conceptual. In research studies, initially out of the secondary traumatic stress literature, compassion satisfaction refers to the sense of personal fulfillment experienced, as a direct consequence of helping others, while acting in the role of nurse, as opposed to the nurse sustaining compassion fatigue and burnout and secondary trauma, the deleterious outcome possibilities post exposure to the suffering of others (Figley, 1995; Stamm, 2002).

Operational Compassion is awareness and attention to the suffering of others. Compassion satisfaction is the positive resultant emotions, of the caring provider, after attending to the suffering of others. The Professional Quality of Life Tool (ProQOL) was used in this research study to capture the construct of compassion satisfaction. It has a reliability alpha = .88 for compassion satisfaction with Version 5 (2012).

The Professional Quality of Life Scale (ProQOL) was derived from the Compassion Satisfaction/Fatigue self-test (Figley & Stamm, 1996; Stamm, 2002). This Version 5 self- administered tool is comprised of 30 items using a 6-point Likert scale that gauge thoughts, emotions and behaviors. There are three subscales that score and differentiate burnout, compassion fatigue and compassion satisfaction. Compassion fatigue and burn- out are similar, as they both are potential negative outcomes from exposure to the suffering of others, which can lead to a sense of helplessness and depression. They differ in that burn-out is a process overtime of disengaging and is not limited to providers of care to the suffering, as in health care; compassion fatigue can occur rapidly in a previously empathic provider who, due to exposure to trauma, loses the ability to express empathy. Compassion satisfaction has been found to be inversely

related to burn-out and compassion fatigue. The Compassion Satisfaction subscale of 10 questions was used in this study.

Assumptions

Research assumptions are basic premises accepted on faith or assumed to be true, without scientific proof or verification (Polit & Beck, 2008).

The assumptions underlying this study were:

1. All human beings experience some form of loss or trauma in their lives (Conti-O'Hare, 2002).
2. The nurse, as a human being, is deserving of compassion and healing from personal loss and trauma (Watson & Smith, 2002).
3. The nurse provides for the healing space by bringing authentically a conscious holism to the interpersonal interactions (Watson, 2012).
4. Caring Science inquiry informs epistemology and caring in nursing and seeks to unify ontological, philosophical and ethical views while incorporating spiritual ways of knowing into practice (Clark, Watson, & Brewer, 2009).

Theoretical Framework

The theoretical framework that guided this research was drawn from the work of Jean Watson. Nursing is identified as a humanistic science with the concept of caring being the central unifying domain (Cohen, 1991). Watson developed a transpersonal framework from her mental health background. Aspects of intentionality or energy focused consciousness are applied to the nurse patient relationship, such that the nurse is a conduit to access spiritual energy in the caring process (Watson, 2002).

Watson recommended shifting nursing from a continuum of health and illness to one containing a spiritual component. This process involves recognition of an increased consciousness in the transpersonal caring relationship that is the moral responsibility of nurses (Watson, 1999). Being present and genuine to a patient or families allows for providing transpersonal caring for the non- reducible human, deserving of dignity. A single caring moment holds a world of possibility as the nurse shows reverence for those who seek his or her care.

Centering is utilized as the nurse, evolving from functioning as the walking wounded to wounded healer, can be of service to those before them (Conti-O'Hare, 2002). Since developing the *Carative* factors, love centered practices, not be confused with curative factors, Watson's early work has developed into a deepened work for harmony (Watson, 2008). There is a call for self -care in the nurse, as they attend to and heal from their own prior trauma.

Nursing acknowledges the human-environment energy field, as the nurse becomes a co-participant in the human care process, allowing for existential, spiritual forces, miracles and compassion satisfaction**.** The nurse works in a sacred place for change when working in the capacity of healer, experiencing satisfaction rather than depletion from the interaction. Energy exchange and fields are not looked on with fear but rather as opportunities for co-creating with patients, families and communities, as the nurse is an agent for positive results (Jesse & Alligood, 2014). The compassion satisfaction of the nurse, as a consequence of patient care, was explored in this study.

Spirituality and social support have been implicated as buffers to the stress of exposure to chronic trauma (Uren & Graham, 2013). According to the theory of Caritas

Consciousness, all have the opportunity to grow and heal rather than remain stagnant in painful emotions (Watson, 2008). Healing self affects professional practice, as the provider brings an authentic empathy to the clinical experiences due to an understanding of their common humanity, regardless of the diagnosis of those placed in their care (Watson, 2008). Nursing has a theory for caring, loving and utilizing self with the ten caritas processes that reflect a respect for self, as well as for the patients served (Mastrian & McGonigle, 2014).

Cultivation of sensitivity to self and others, that Watson calls for was investigated, as the traumas of childhood experiences of nurses were explored in this study. Watson has this sensitivity for self, as one of her ten C*arative Factors,* additionally noting that both positive and negative feelings need expression (Watson, 1979). Adverse childhood experiences occur and require healing processes to resolve their impact**.** For two decades, research has studied the symptoms of burnout and compassion fatigue and more recently compassion satisfaction, in health professionals (Figley, 1995). The routine exposure to the suffering of others has a cost for the providers (Bride, 2007). Consequentially, as healthcare providers experience ongoing traumas at work, their work stressors fall on a foundation of their prior childhood life experiences. Developing strictly competent practitioners, capable of critically and objectively applying scientific principles with rational thought, does not begin to ensure the necessary capacity to care and express compassion so integral to nursing (Claesson, 2012).

No matter the advances of technology, the therapeutic use of self is required to ensure compassionate care is provided. Human caring, to be understood and facilitated, requires ongoing research to provide a foundation for human caring science that values

transforming both the provider of care and the recipient (Watson, 2012). Figure 1 depicted is a model incorporating the theory of Caring and as such, represents the incorporation of soul self-care, as sensitivity to self is crucial in the transcendence of the provider and the patient, according to the work of Jean Watson. The three constructs of Adverse Childhood Experiences, forgiveness and compassion satisfaction have been placed in the model as they correspond to sensitivity to self, soul care, and intentionality respectively.

The nurse brings forgiving intention as well, into the nurse patient relationship, by honoring the spiritual and enabling faith and hope (Watson & Smith, 2002). The nurse stands on a foundation of nursing history of caring for the spiritual, that extends back to Nightingale herself. Forgiveness is integral to healing relationships, as imperfection is unavoidable in human interaction. There is a practice to loving kindness and self - compassion and forgiveness with an evolving field of research (Neff, 2003). Creating a healing environment for the patient with intention, the nurse attends to self- care with the same sense of ethical duty (Watson, 2012). The trait of forgiveness ability in nurses was assessed in this study. The impact of the variable of forgiveness on the variable of compassion satisfaction was investigated, as well as, the unique characteristics of each participant in the study regarding demographics. Figure 1 displays Forgiveness as a moderator on ACEs and Compassion Satisfaction

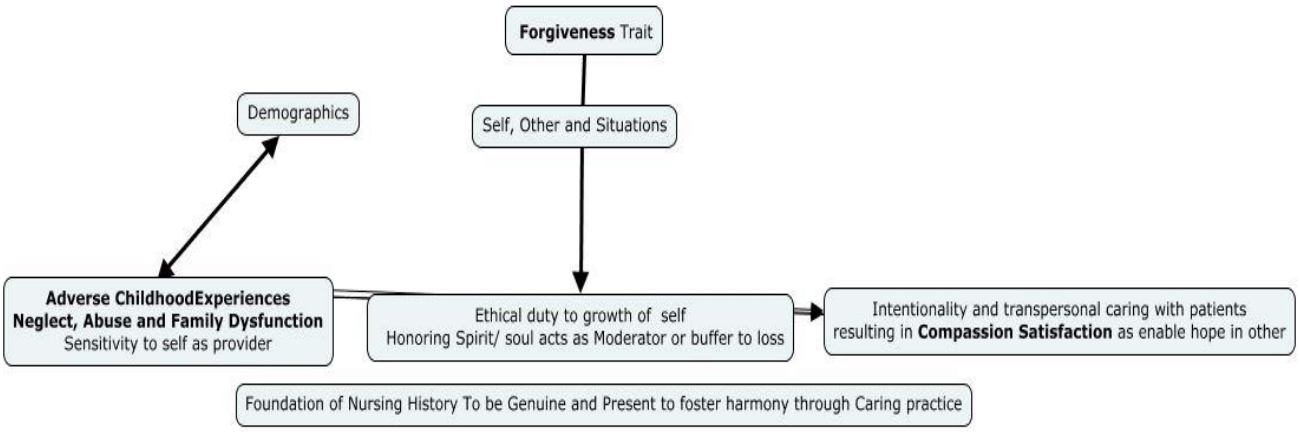

Figure 1. Incorporation of study variables into theoretical framework of Jean Watson's Carative Factors (Watson, 2008).

The early trauma scoring of adverse childhood experiences has been conceptualized by community activists, as well as nursing researchers (Kalmakis & Chandler, 2014). There are gaps in knowledge regarding the epigenetic or environmental factors that support resilience rather than result in deleterious health outcomes. These factors are still being discovered; the goal of this study was to determine if forgiveness plays a role in moderating the outcomes to health after childhood trauma. As nurses, daily bear witness to and vicariously experience the suffering of others, the role of their trait of forgiveness, as a factor in their coping and experiencing compassion satisfaction, will be examined. The first Caritas Process, of cultivating loving kindness to self, was required in each step of this study. The nurses, in order to answer the required questions, reflected on their childhoods with courage and truthfulness, considered their compassion satisfaction ability when faced with suffering and assessed their use of forgiveness for self, others and situations (Watson, 2008).

The antecedents to compassion satisfaction were explored, as nurses enter the profession with various quantities of and types of past traumas. The Adverse Childhood Experiences tool used in this study was used to screen for neglect, abuse, and family dysfunction. Additionally, nurses everywhere show up to work and the face the unavoidable exposure to the suffering of others, while functioning with various abilities to forgive self, others and situations. This study explored the buffering role of forgiveness on the outcome of compassion satisfaction after various adverse childhood experiences among nurses in a targeted sample.

Summary

Chapter 1 presented the statement of the problem, the purpose of the study, the significance of the study to nursing, the research variables and the research questions that guided this study. Basic assumptions underlying this study were presented as well, as the definitions of terms. The theoretical framework of Jean Watson (2008) and the incorporation of the study variables into a model were also presented.

CHAPTER II

LITERATURE REVIEW

The purpose of this study was to determine the impact of adverse childhood experiences on the ability of nurses to experience compassion satisfaction and evaluate the influence of forgiveness as a moderator on that outcome. The literature review was divided into three sections. The first section was organized to present an overview of compassion satisfaction as it is differentiated from compassion fatigue and burnout. The second section presented a synthesis of the current state of the science on Adverse Childhood Experiences and the known sequela from early trauma. The third section presented the current science on forgiveness ability and the current forgiveness research.

Compassion Satisfaction

A qualitative study (Sheppard, 2015) focused on the appropriateness of the use of the Stamm (2012) instrument in nursing research. The purpose of the qualitative study was to determine the efficacy of the application of the compassion fatigue instrument in the Stamm (2012) instrument of Professional Quality of Life tool (ProQOL) with nurses, as work related emotional exhaustion can impair work performance and lead to absenteeism if unaddressed. The researcher pointed out that the ProQOL does not specifically address compassion fatigue itself but rather the three proposed components: burnout, secondary traumatic stress, and loss of compassion satisfaction. The theoretical framework for the qualitative investigation was the use of the hybrid model of Schwartz-Barcott and Kim for concept development demanding theoretical, field and analytical

phases for concept development (Schwartz-Barcott & Kim, 2000). Analysis was based on stated themes. The focus was to understand the relationship of compassion fatigue to attrition in nursing. Additionally, gathered were the thoughts and words of nurses themselves on the construct of compassion fatigue. The research included a: theoretical phase, a field phase and an analytical phase (Sheppard, 2015).

The theoretical phase included a literature review to ascertain the appropriateness of the use of the ProQOL (Stamm, 2010). The field phase entailed phenomenological interviews with 16 registered nurses who were working in a level -1 trauma hospital. The questions poised to nurses were open ended and invited nurses to speak of their experience with the term compassion fatigue, as they understood it (Sheppard, 2015).

The analytical phase led to four concerns emerging: life is unfair, there is endless suffering, it is difficult to let go, help is desired but not always accepted. Some family and friends were too engaging and problem solving; other nurses faced supporters who quickly became burdened by the work examples and could not endure listening. The nurse felt the loss of the opportunity to just be heard, without well-meaning suggestions being offered (Sheppard, 2015).

The researcher concluded that in this study burnout, defined as negative emotional reaction, was not a significant factor in compassion fatigue, defined as negative physical and mental health, as it was not identified by any nurse as contributing to their compassion fatigue. Emotions emerged that did not fit Stamm's conceptual model, in addition, to symptoms of hypervigilance or secondary traumatic stress. The nurses found the term of compassion fatigue to be stigmatizing and motivation themes emerged of

their pursuing an advanced practitioner position in order to remove themselves from work related emotional distress (Sheppard, 2015).

In a follow up study, Sheppard then recruited 59 participants from their second year Doctor of Nursing (DNP) studies. In addition to completing the ProQOL tool, they also completed a 10 -week program of web-based modules, educating the participants on the antecedents of and triggers for and skills needed to prevent compassion fatigue. All participants volunteered for this descriptive, mixed methods study. Participants were additionally asked to keep a journal to focus their attention on the concepts and how they applied to their practice (Sheppard, 2015).

Descriptive statistics demonstrated that 71% of the N = 59 participants had compassion satisfaction with 81% reporting symptoms of burnout and 74% experiencing secondary traumatic stress. No participant withdrew from the study despite the 10- week commitment required, the researcher concluded that all participants valued the assignments. Sheppard concluded that certain themes with nurses were missed by the ProQOL namely: feeling life is unfair and feeling "saturated" by their work with patients. Through her work, Sheppard recommended renaming compassion fatigue to *provider saturation* or *care distress* to avoid stigmatizing the professional, as one less capable of feeling compassion for their patients (Sheppard, 2015).

Sheppard's work also brought into question the use of the ProQOL model (Stamm, 2010) to investigate compassion fatigue in nursing. Her study challenged the use of the Professional Quality of Life (Stamm, 2010) conceptual model of compassion fatigue, as it is composed of questions addressing burnout, secondary traumatic stress and loss of compassion satisfaction. Despite Sheppard's literature review to differentiate the

terms, she found an overlap and lack of consensus in nursing research. The concepts of letting go and accepting support were not captured in the ProQOL instrument (Sheppard, 2015).

Nurses felt shame when labeled as having compassion fatigued, as they saw compassion as integral to their work (Sheppard, 2015). The sample size of N = 59 participants also limited the generalizability of the results, as does the fact that the participants were all at the level of advanced practice, with much experience behind them. Shared experiences emerged that were not captured by these three areas of compassion satisfaction, secondary traumatic stress and burnout. The results of these two initial studies, despite the limitation of small sample sizes, point to a need to establish the contributors of other factors that may sustain compassion and to a need for revising the model in relation to the nursing profession (Sheppard, 2015).

A descriptive, correlational study was undertaken by an epidemiologist and faculty from the University of Boston to examine the relationship between self-compassion and emotional intelligence in nurses (Heffernan, Griffin, McNulty, & Fitzpatrick, 2010). This study focused on the providers of care in acute care environments in New York. For this study, emotional intelligence was defined as perceiving self as confident, and able to regulate emotions, while understanding others. The participants were 135 nurses, out of three counties near New York City, which provided for diversity in the sample (Heffernan et al., 2010). The settings included hospitals within one health system but geographically separated. A convenience sample of RN's and nurse managers were recruited. Participants who failed to complete 90% of the survey were dropped thus the resultant number of 135 final participants. The majority (95%) of the participants

were females from a medical unit (34%), with surgery and critical care units both represented at an equivalent 11.9%. Over half of the nurses were between 41-50 years of age with 42% having a BSN degree. More than half were staff nurses (54.5%) followed by the second highest group of nurse managers at 34% (Heffernan et al., 2010).

The researchers utilized the definition of and instrument for compassion from Neff (Neff, 2003) which encompasses the ability to be moved by the suffering of others. The Self-Compassion Scale was developed by Neff and is a 26-item instrument with six subscales. The SCS has an internal consistency of 0.92 and with a three-week test retest timeline has a reliability of 0.93. Negative correlations were found with self-criticism, perfectionism, anxiety and depression while positive correlations were found with life satisfaction and emotional intelligence (Heffernan et al., 2010). Emotional intelligence was evaluated with a Trait Emotional Intelligence Questionnaire- Short Form (TEIQue) that was developed by British researchers Petrides and Furnam (Matthews, Zeidner, & Roberts, 2007; Petrides, 2009). Answers were based on self- perception and questions have their basis in the research established in with the Big Five personality traits (Barrick & Mount, 1991). The TEIQue is a thirty -question instrument which had an internal consistency of 0.88. Positive correlations between scores on this test were noted between positive coping and job satisfaction (Heffernan et al., 2010).

The Cronbach's alpha for the total Self-Compassion Scale results was an acceptable 0.90. The Cronbach's alpha for the Emotional Intelligence instrument was 0.88. The mean self-compassion score was 3.49. Pearson correlations were used to analyze the data for the self-compassion score and the emotional intelligence scores. The total score and five of the six subscales for self-compassion, self-kindness score, self-

judgement scores, common humanity score, isolation items, mindfulness items and overidentification were all statistically significantly correlated with emotional intelligence at $p < 0.0003$ or less (Heffernan et al., 2010).

Internal consistency for the self-compassion tool was 0.78 for the self-kindness scale, 0.80 for the common humanity scale, and 0.81 for the mindfulness scale. Validity was established ensuring that the self-compassion scale did *not* in fact measure other constructs. This was established, as a Pearson's correlation coefficient was calculated to ensure that there was no correlation with the Marlowe-Crowne Social Desirability Scale, and there was none. This result indicated that the answers were not coming from the participants' desires to appear in a favorable light but rather from valid answers. A Pearson's correlation for this study revealed a positive correlation $r = 0.55$ between the two constructs of self-compassion and emotional intelligence (Heffernan et al., 2010).

Homan (2014) evaluated the relationship of self-compassion to attachment to God and three outcomes: anxiety, depression and life satisfaction. In this explanatory mediation study, the role of self- compassion in the three outcomes was explored. Utilizing the *attachment theory* (Bowlby,1980), Homan hypothesized that insecure attachment would result in a risk factor for depression and anxiety. The study purpose was to explore the role of self-compassion in the relationship between attachment to God and participants' mental health (Homan, 2014).

A brief description of the study was placed on a website to solicit participants. The website was a marketplace of opportunities for users to gain some compensation for their participation in self- selected studies. The sample consisted of 181 participants. Of the sample 73% were male and ranged in age from 18-63 with a mean of 28.5 years.

Most participants (78.2 %) identified as white, 6.7% as African-American, 7.8% as Asian and 5.7% as Latin American. Participants identified as 36.5 % Protestants, Christian at 27%, Roman Catholic at 14.8%, other at 4.2% and for 15.3% of participants, no religious affiliation was indicated. Only 31.9% of participants reported weekly service attending (Homan, 2014).

The Self-Compassion Short Form (Neff, 2003) of 12-items was used to measure self-compassion. The Attachment to God Inventory (Beck & McDonald, 2004) with 26 items, with a seven-point Likert scale, determined the participants comfort with the question of the availability of God. Cronbach's alphas for the study were all acceptable. There was 0.87 for the Anxiety subscale and 0.89 for the Avoidance subscale components of the Attachment to God Inventory and 0.82 for the Self -Compassion scale. A Satisfaction with Life Scale utilized a Likert scale with seven points, from strongly agree to strongly disagree which addressed five responses to general perceptions of life experiences. The Cronbach's alpha for this scale was 0.90. And finally, a Depression Anxiety and Stress Scale Short Form were used having positive correlations with the well- respected Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) $r = 0.79$ and $r = 0.85$ for the Beck Anxiety Inventory (Homan, 2014).

This correlational study design tested a model of mediation whereby attachment to God influenced mental health via self-compassion. This causal model based on past studies was supported by the obtained results (Kirkpatrick, 2005). The MEDIATE macro for SPSS (Hayes & Preacher, 2013) was used to determine the direct and indirect effects of all the variables in the mediation model. A 95% confidence interval was used based on bias corrected bootstrap methods. Confidence intervals that did not cross zero were

considered significant. The more participants avoided closeness with God the less self-compassionate they were with themselves. Self-compassion was statistically significantly inversely related to depression (b = -0.265). The test for the complete model was statistically significant (R^2 = 0.373, $p < 0.001$) as people who reported greater self-compassion also reported greater life satisfaction. One of the study limits was the recognized limit of correlational designs, which does not allow for conclusions of causation. The researchers concluded that, extending care and kindness to self in self - compassion and feeling secure in an attachment to God, lends itself to fewer psychological symptoms and a more satisfied life (b = 0.453). Homan concluded that people who feel uncomfortable depending on God have difficulty with self-compassion. Self-compassion mediated these associations in a reverse direction (b = - 0.120) for depression and anxiety (Homan, 2014).

Dunn and Rivas (2014) conducted an exploratory study, with secondary data analysis, utilizing data collected in 2009 from eight registered nurse participants. The purpose of this Heideggerian, phenomenological study was to describe what keeps nurses in their profession and to understand the lived experience of compassion in nurses. The theoretical framework utilized was based on the caring theory of Boykin and Schoenhofer, which identifies the essential focus of nursing as caring (Boykin & Schoenhofer, 2001).

Heidegger, challenges that the context of the lived experience is inseparable from finding meaning in the interpretation, and as such, the archival data of eight practicing nurses were obtained for this study (Dunn & Rivas, 2014) and an interpretive approach was applied to the anonymous data which focused on compassion (Diekelman &

Ironside, 1998). The findings were based on women aged 22-54 with a median age of 39. They had worked in nursing 1.5 years to 33 years with a median of 18 years. Six of the women were Caucasian, with one African American, and one from the Caribbean. There was nurse with an associate degree, one with a master's degree and six with a Bachelor of Science in nursing degree. The purposive sample for the study was obtained from RNs in an academic setting in the southeast of the United States (Dunn & Rivas, 2014).

Saturation was obtained after eight one- hour interviews were conducted with each participant. Four themes from the original data included: practicing from core beliefs, making a difference, understanding at a deep level and nursing as a process that evolves (Dunn & Rivas, 2014). Based on an interpretive tradition the sessions were analyzed using Diekelman and Allen's process for evaluating texts that are narrative in nature (1989). The data was transcribed, units of meaning were obtained, categories were made with similarities and differences and relational themes were established. Examinations were made to establish a pattern linking all the above and discussions were completed with experts, as well excerpts were identified to support the summaries. The themes of understanding the other were synthesized as compassion. The identified compassion data was utilized for the secondary analysis and the interpretations focused on usefulness, experience and the meaning of compassion in practice (Dunn & Rivas, 2014).

Textual data were obtained and de-identified for the secondary analysis. This secondary analysis extended the theme of compassion that had been identified in the original study. Recognized as a driver of this research, was the paucity of literature linking nursing and compassion. In this study, text was used to understand the experience

of compassion in nursing practice. A lens of compassion, as energy, was utilized as the researcher assumed that both the nurse and the patient can be linked in positive outcomes by the interaction. Through this interaction, this theory of compassion energy was conceptualized as intention and creating meaning and as such, utilized the theories of Boykin and Schoenhofer (Boykin & Schoenhofer, 2001) and Rogers' Science of Unitary Human Beings and included expanding consciousness (Rogers, 1970) and intentionally knowing self and other (Dunn, 2009).

Rigor was ensured, by a framework by Lincoln and Guba, that addressed authenticity with field notes, audios, and maintaining an audit trail that could be reviewed by an expert in the field of study (Lincoln & Guba, 1985). The communication with the original researcher, was accomplished in an ongoing process to ensure rigor. The analysis required seven steps: examining the context of the data, identifying common themes, collectively talking regarding interpretations, rereading all original text to establish links, establishing patterns, comparing results with a literature review and sharing the summary to be validated by the readers (Dunn & Rivas, 2014).

The secondary analysis resulted in three relational themes: compassion as emotion, transforming the compassion occasion and connecting with grace. Compassion, as emotion or loving concern, was interpreted as compassion satisfaction. Transforming the compassion occasion was interpreted, as the space and time allotment for the demonstration of caring. Connecting with grace was connecting with dignity and presence. Suggested from the research was the finding that some nurses took a protective stance, of not getting too involved with patients, for reasons of self- protection that must be acknowledged and addressed if compassionate care is to be provided. Compassion was

required to respond to a call for help requiring intentionally knowing self and the patient. Compassion satisfaction was the pleasure derived from being able to do the work of nursing. Intention, to be present with compassion, was addressed in this study for the nurse providing for the patient (Dunn & Rivas, 2014).

Limitations of the study were acknowledged by the author as the following: the participants were all in the same educational program, no men were represented, the demographics were narrow, and no patient input was acquired as providers, not patients, were the focus (Dunn & Rivas, 2014). The researchers of this study concluded that *intention* grounded the energy required to be present with patients in a compassionate manner. Conscious volition to care energized the interaction. Suggested for future research were questions on whether compassion could be taught. Needed, according to this study, is an understanding of the intentional, attentional and behavioral components of compassion, while recognizing the potential for destabilization in the nurse when coming face to face with ongoing suffering. The researchers' goals were to lead to new ways for improving compassion satisfaction in the nurse patient relationship. They concluded that serving others with compassion leads to compassion satisfaction (Dunn & Rivas, 2014).

Tierney, Seers, Tutton & Reeve (2017) conducted a qualitative study, utilizing semi-structured interviews and focus groups to arrive at an understanding of a working model congruent with the outcome of compassionate care. The goal of the study was to explore the ability of staff to provide compassionate care from the perspective of the staff working within the healthcare system across the UK (Tierney, Seers, Tutton, & Reeve, 2017).

The qualitative study had a sample of 36 participants from various positions in the healthcare system. Purposive sampling was used as much as possible but was limited as the participants needed to be working with patients with type 2 diabetes. Gender and experience and roles were as varied as could be accomplished in the selection. They were recruited from across the UK and snowballing was utilized to acquire the final group. The participants agreed to take a focus group experience or be interviewed between May and October 2015 (Tierney et al., 2017).

The aim of the study was also to: unearth the motivations to provide compassionate care and to determine barriers and facilitators to providing that level of care. To focus the above aims, the researchers chose the clinical practice of caring for patients who have diabetes. The final number of participants was 36 made up predominately of females (n = 29). Nurses numbered 13, Doctors 7, Podiatrists 6, healthcare assistants were at 5, Dieticians had 3 represented and 2 were from the administrative staff level (Tierney et al., 2017).

A qualitative methodology was used, relying on grounded theory, as it focuses on the social processes, as the context to the construct under study (Willig, 2008). Interview and focus group data were analyzed simultaneously and coded in a line by line fashion. Codes were then clustered and reviewed and challenged for the clustering which were then entered into a computer program NVIVO (Version10). Rigor and trustworthiness were ensured by: reviewing preconceived thoughts on definitions of compassion to differentiate personal and acquired information, utilizing multiple people with various backgrounds to contribute to the process, using an audit trail and negotiating disagreements openly. Finally, questions were validated with participants to ensure that a

proper synopsis was acquired that reflected accurately the points made (Tierney et al., 2017).

Results fell into *defeaters* or *defenders* of compassion categories. The model was based on flow or a continuum of care. The term flow is used to depict a concept in positive psychology whereby one becomes absorbed in an activity to the exclusion of awareness of time or effort (Csikszentmihalyi, 1997). Research implications suggested that future efforts are required to explore the sustaining *defenders* of compassion to facilitate and sustain providers' abilities for empathic care for patients. One limitation of the study was the utilization of self- report from providers. Defenders of compassion identified were: working with supportive colleagues, having the ability to draw on ones' faith, having autonomy in the workplace and being seen humanely by the system, as compassion was extended to the providers, as well as being expected for patients. *Drainers* were identified as experiencing personal difficulties, struggling with competing demands and experiencing demanding interactions with patients. Compassionate care was sustained by witnessing compassion validated or displayed by others in the system. This acted in a positive feedback system on itself, at an organizational culture level. The researchers suggested that future attention needs to be given to exploring more fully the sustaining defenders of compassion, to facilitate providers' ongoing abilities for empathic care of patients (Tierney et al., 2017).

A cross-sectional, quantitative research study (Smart, English, Wilson, Dartha, Childers and Magera, 2014) was conducted in a community hospital and researchers examined the differences of quality of life indicators across specialties. Nurses, MDs and nursing assistants were evaluated for differences in and among individual and

organizational variables (Smart et al., 2014). The goal of this study was to identify modifiable variables, in order to develop appropriate interventions for the retention of staff and the avoidance of deleterious outcomes for individuals. Specific aims for the study included: noting any differences in ProQOL scores between hospital units, and licensed and unlicensed providers whether floating or stationary staff, as well as to determine predictors of professional quality of life indicators (Smart et al., 2014).

The researchers examined the different subsections of health professionals in one institution. Participants were recruited from a 250-bed Magnet status community owned hospital. Excluded were staff not directly caring for patients and not on the four units chosen: general medical surgical, two critical care units, the emergency room and the nursing resource pool of non- unit specific employees (Smart et al., 2014). Most of the participants were nurses at 55% and of those (63.3%) were RNs who worked fewer than 40 hours a week. Of the participants 77% identified as married. The ages ranged from 21 to 60 years. In the sample 31.3% worked in the emergency department and 30.6% worked for the resource pool. The sample had N=139 participants (Smart et al., 2014).

The survey methodology was used to determine compassion fatigue and satisfaction rates as measured by the ProQOL (Stamm, 2012) instrument among the participants. The cross-sectional design and survey methodology resulted in 250 surveys being sent out. The instrument utilized was the ProQOL Compassion Satisfaction and Compassion Fatigue Version V (Stamm, 2012). This 30- question tool measures both positive and negative outcomes of caring. The 10 compassion satisfaction questions have an alpha of 0.88. Compassion fatigue is subdivided into burnout and secondary traumatic stress. Burnout had an alpha of 0.75 while STS had an alpha of 0.81. Over 200 studies

have determined convergent and discriminant validity for the ProQOL tool (Stamm, 2012). Researchers included demographics that were tested for face validity and content validity with a panel of experts. Additional demographic factors investigated included: sleep habits, shift rotations, years of working, marital status and highest educational level achieved. Data collection was offered, as paper and pencil, as well as in a web-based manner. Participants were able to complete the survey at home or at work (Smart et al., 2014).

ANOVA and independent sample *t* tests were conducted on the data to establish differences in ProQOL subsets group means and demographic, work and environmental factors. Pearson's *r* was determined to establish the correlations between the variables. Multiple linear regressions were run on the data that was completed (Smart et al., 2014).

The results obtained were: a negative correlation between compassion satisfaction and burnout ($r = -0.7888$, $p < 0.001$), a negative correlation between compassion satisfaction and secondary traumatic stress ($r = -0.320$, $p < 0.001$), and a positive correlation between secondary traumatic stress and burnout ($r = 0.580$, $p < 0.001$). Mean ProQOL subscale measures of compassion satisfaction did not differ between departments. No significant variables were identified in a regression model tested to predict compassion satisfaction when using the variables of hours of sleep and work environment. However, 23 % of the variability in burnout was accounted for by those two factors as $F(5, 72) = 4.408$, $P < 0.001$, as an R^2 of 0.02 was found. Less burnout was found among critical care workers ($t = 2.23$, $p = 0.03$) than general medical workers. There was also a negative correlation between compassion satisfaction and burnout and secondary traumatic stress with $p < 0.001$ for both. And finally, there was a

positive correlation between secondary traumatic stress and burnout ($r = 0.580, < 0.001$) in this study. The researchers conclude that theoretically finding ways to increase compassion satisfaction could decrease compassion fatigue (Smart et al., 2014).

Also suggested by the study, was that individual attributes of the participants may have had a unique role in the results, rather than the subspecialty work environment or patient load experienced. Of note, was the fact that disgruntled less enthusiastic employees may have opted out of participating in the study. Also, the Magnet status and associated nursing support, may have contributed to the fact that only one participant fell into the high-risk category for burnout. The variable of working on the night shift was associated with less compassion satisfaction ($r = -0.21, p < 0.05$). The authors concluded that self- care and addressing sleep needs may contribute to less burnout. Though the findings were statistically significant, they only accounted for a small variance in the constructs, thus suggesting other factors exist that more fully contribute to the outcomes. Limitations for this study were: the convenience sampling utilized, a study design that did not allow for conclusions of causality, as well as the ethically non- diverse population (96%) of Caucasians and use of self-reporting (Smart et al., 2014).

A quantitative exploratory study by Hooper et al., (2010) took on the challenge of describing the patterns of compassion satisfaction, compassion fatigue and burnout among emergency nurses and other selected inpatient specialties in acute settings in the Southeast North Carolina area of the US. This exploratory quantitative study used a cross sectional survey between the dates of March through June in 2008. Areas of comparison to emergency nurses were nurses working on 3 inpatient units: oncology, nephrology and oncology. All RNs with more than a year work experience, who worked at least one day a

week were recruited. These professionals worked in a 461- bed healthcare institution. The Emergency room was 47-bed unit level II trauma center. Written information was hand delivered to the mailboxes of qualifying nurses. A month later the invitation to complete the demographic information and survey was distributed again. The time frame was 10 weeks for the completion. Staff nurses included in their demographics: age, education, years of experience, specialty area, shift worked, and hours worked each week. Most respondents worked the day shift (61%), and 90% were women. The majority (62%) had achieved a diploma or associates degree and 38% were holding a bachelor's degree or masters. Numbers of years in nursing were grouped into four categories: < 3, 3-5, 6-12, and 12 or more. At least 25% of all areas queried were represented in the results. The overall response rate was 83% with an N = 114. By specialty: the intensive care unit had N=32 participants, the Emergency room had N= 49, nephrology N= 16 and oncology N=12 number of participants. Out of 138 sent surveys 114 were returned such that response rate was 83%. Five were missing answers resulting in an adjusted N = 109. Of the nurses responding, 39% worked primarily night shifts (Hooper et al., 2010).

The ProQOL R-IV a 30-item revised instrument was used, as it provided a composite score, as well as 3 subscale scores. Acknowledged was the work of Stamm (Stamm, 2002) that resulted in quartile methods of scoring, such that the top 25% is separated from the middle 50% and the lower designated 25%. Scale scores were summed for the three subscales for emergency nurses and compared to the other areas of practice. The instrument has tested with alphas of 0.87 for compassion satisfaction, 0.72 for burnout and 0.80 for compassion fatigue. (Hooper et al., 2010).

Responses were evaluated with a statistical software of SPSS version 12, as scales were scored for each participant. Descriptive statistics were obtained. There was no significant difference in subscale scores for demographic variables (Hooper et al., 2010).

Study results were compared to those previously conducted by Stamm (Stamm, 2003). No statistically significant differences for gender were found for compassion satisfaction, though they existed for compassion fatigue, with a ($p = 0.01$) higher incidence for females over males. There was no statistically significant difference for subscale scores for compassion satisfaction, fatigue and burnout with any demographic variables. Overall 20% of the staff scored low for compassion satisfaction, with emergency nurses reporting lower compassion satisfaction when compared to the other areas of practice, however it did not meet a statistically significant difference $p = 0.95$. The relationship between compassion fatigue and compassion satisfaction in this study was insignificant but an inverse relationship existed between burnout and compassion satisfaction. Thus, nurses with higher compassion satisfaction had a tendency toward lower burnout but causal association could not be justified by this study, as limitations included: sample size, predominately female participants, and the fact that only one institution was surveyed. The hypothesis that emergency room nurses were at the greatest risk for compassion fatigue and burnout was not supported by the data collected in this study, as only 22 % scored in the high-risk range for burnout N=11 and only 24% scored low in compassion satisfaction. Researchers summarized implications, with among other things, that nurses need to care for self - including the dimension of spiritual care as part of their balancing of professional and personal life. Also recommended was the need for

future research to identify practices for enhancing compassion satisfaction as a buffer against compassion fatigue and burnout (Hooper et al., 2010).

Mason and Nel (2012) investigated the constructs of compassion fatigue, burnout and compassion satisfaction among students enrolled in a nursing program at a South African University. The aim of the study was to determine the correlations between the constructs and to identify predisposing factors in the students that might explain their responses to their personal exposure to patient suffering. This sample consisted of N = 80 students with the majority being females N= 73, all of whom were in their first (41%), second (30%) or third year (28%) of nursing education. The mean age of the students was 22 years of age (Mason and Nel, 2012).

Demographic information was gathered along with the responses to the instrument of an administered ProQOL R-IV fourth revision (Stamm, 2005). The construct validity for this instrument had been established, as alpha 0.80 for compassion fatigue, 0.72 for burnout and 0.87 for compassion satisfaction. Each construct has 10 related items to be scored with a Likert scale ranging from 0-5 or *never* to *very often*. The protective factor or compassion satisfaction was 92.5% at moderate to high levels. A slight decline was noted from the first-year students, compared to the second and the third- year students, or 43.3 to 40.7 to 40.3 respectively on their means for compassion satisfaction. A statistically significant $p < 0.05$ negative correlation ($r = -0.25$) was found between compassion satisfaction and compassion fatigue. A statistically significant inverse relationship $r = -0.63$, $p < 0.01$, was also found between burnout and compassion satisfaction. Limitations were sample size with N=80. Though all students contributed, some may have felt compelled to do so. Implications for practice were the suggestions

that multi-disciplinary professionals need to address the psychosocial needs of care-providers', starting with the student in training, in order to establish self- care as an ethical imperative valued across a career. The researchers suggested that factors contributing to compassion satisfaction have the potential to improve the quality of longevity in that career as well (Mason and Nel, 2012).

A quantitative study addressing compassion fatigue resiliency with oncology nurses was undertaken in St Louis, Missouri (Potter, Deshields, Berger, Clarke, Olsen, Chen, 2013). Oncology nurses were recruited to attend and take advantage of a five - week course to build personal resiliency against compassion fatigue. Previous work for descriptive statistics and prevalence of compassion fatigue with oncology nurses had been conducted by the researchers and justified their attention to this focused specialty of nurses. Researchers had found that oncology staff had higher than average scores on compassion satisfaction and compassion fatigue (Potter et al., 2010).

The Resiliency Program (Gentry & Baranowsky, 1998) was utilized for the intervention, as it is an educational tool to prevent and treat compassion fatigue and was chosen as the means for changing self-regulation skills, intentionality ability and promoting self-care potential for participants. Small group activities encouraged the practice of new skills. Living with integrity rather than seeking recognition from others was promoted. Cultivating work social support was encouraged and applauded. Program facilitators included social workers, pastoral care workers and professionals with a psychiatric background, in addition to advanced training in the program administration. Four 90-minute sessions were held at the conclusion of the work day. An off- site retreat

occurred before the last session. Before attending the interventional education, and at 3, and 6 months the participants completed the ProQOL testing (Stamm, 2005).

This descriptive pilot, intervention study in a National Cancer Institute had a sample of 13 oncology nurses, who participated after being recruited from their outpatient infusion center. The research variables were scores on a 22 item Maslach Burnout Inventory- Human Services Survey (Maslach & Jackson, 1981), 30 items on the ProQOL IV scores (Stamm, 2005), 22 items on the Impact of Event Scale-Revised (IES-R) scores (Weiss & Marmar, 1997), and 28 items on the Nursing Job Satisfaction Scale (Hinshaw & Atwood, 1983). All had good reliability with test retest and good validity additionally each could be completed in under 15 minutes (Potter et al., 2013).

A mixed model repeated measures analysis was utilized across the time lines. The SAS version 9.2 was used and a significance level of 0.05 was established. Fourteen nurses completed the two five- week programs. The majority were female (N=12) Caucasian (N=13) and married (N=7) with a BSN (N=7) and experienced as a nurse with a mean of 15.4 years. Compassion satisfaction scores on the ProQOL scores showed no changes across the intervention. Repeated measures analysis showed no correlation of the demographics of age or years in nursing, as significant statistically with the three constructs measured in the ProQOL tool. This was the first study with oncology nurses to show a statistically improved reduction in secondary traumatic stress at six months and for the overall IES-R total score, the improvement was immediate and sustained at each assessment thereafter. The six months mean difference for the total score of the Impact of Events Scale was statistically significant with a mean difference = 1.77, $p = 0.005$, 95% CI {0.57, 2.97} after the program. This indicated that staff felt better prepared to manage

intrusive thoughts and to use the coping mechanism of avoidance less often because of the intervention. Avoidance scores statistically improved or were lower by three months after the program with a mean difference of 0.57, $p = 0.007$, 95% CI {0.16, 0.98}. Intrusion scores were also statistically significant, starting at three months and sustaining at six months with a mean difference of 0.76, $p = 0.004$, 95% CI {0.26, 1.26}. Burnout scores dropped as well, but not statistically significantly. Secondary traumatization scores declined immediately and remained down at three months and dropped again at 6 months with a significant mean difference of 3.54, $p = 0.044$, 95% CI {0.09, 6.99}. The number of participants was a limitation of this study, as was the fact that those most at risk, may have opted out of the participant time constraints. Future intervention recommendations were to structure the intervention into a single day. The researchers suggested that living intentionally can be taught and learned and facilitates nurses building resiliency for the work of caring (Potter et al., 2013).

Myer, Li, Klaristenfeld, & Gold (2015) explored the impact of stress exposure on new nurses and worked to establish the means of mitigating the deleterious consequences of work-related burnout. The purpose of the study was to explore the outcomes of work-related stress on new graduates choosing a pediatrics specialty for work. This study added three ways to the literature: the utilization of a longitudinal methodology, controlling for pre-existing stress and differentiating direct and indirect stress and their outcomes (Myer, Li, Klaristenfeld, & Gold, 2015).

One aim of the research study was to determine the characteristics of nurses entering the profession. A sample of nurses in a Residency program in Los Angeles were recruited as they entered a 22- week extension of their mentorship post-graduation from

nursing school. This comprehensive clinical and didactic experience provided learning opportunities for RNs with less than a year of experience. Nurses from September 2007 through March 2010 were invited to become involved in the study. Out of 261 approached, 251 agreed to participate resulting in a 96% recruitment rate. Only 20 participants were male. At three months 20 did not complete the follow-up for various reasons. At six months 35 opted out of taking the job satisfaction evaluation. The majority (60.1%) were between 23-30 years, 16.1% were within 31-40 years of age, 6.3% were between 41 to 50 years of age and 1.4% were over 50 years of age. Caucasian participants were at 30.3%, 19.1% were Asian, 10.4% were Latino and only 2.4% were African American, a full 35.9% did not answer the question. The participants were nurses in a program preparing them for acute care pediatric practice (Myer et al., 2015).

Initially 251 participants agreed to assess themselves at baseline and at three and six months. There was not a requirement to participate in the research study, as a condition of being in the education program. By the 6- month date, four did not graduate from the program and three others were relocated or resigned. The Institutional Review Board approval was sought, and consents and procedures were in line with the Department of Health and Human Services guidelines, as was true for all studies included in this summary. The consenting nurses were given a paper and pencil test to complete the Life Events Checklist (LEC), at the time of beginning the program (Gray, Litz, Hsu, & Lombardo, 2004). This was repeated at 3 months. At 6 months, Job Satisfaction data was also requested and captured with a web-based program (Mueller & McCloskey, 1990).

Additionally, the participants were instructed to complete the Compassion Satisfaction (CSF) and Fatigue Test (Stamm, 2002), in order to assess for compassion satisfaction, secondary traumatic stress and burnout. The pediatric nurses were evaluated, to determine the influences of their prior stress and their present compassion fatigue, on their job satisfaction or burnout. The effect of work stress on compassion satisfaction was also queried. The hypothesis was that compassion fatigue would be the mechanism that explained burnout at three and six months of new employment. The stressors could have been acquired directly or vicariously. It was posited that stress, regardless of the source, would contribute to burnout because of the mechanism of compassion fatigue. The researchers hypothesized that controlling for pre-existing stress exposure, greater stress exposure in the first three months of working would predict higher burnout and lower job satisfaction (Myer et al., 2015)

The Mueller McCloskey Satisfaction Scale (MMSS) was administered at 6 months (Mueller & McCloskey, 1990). This is a 23-item evaluation tool with adequate internal consistency (alpha = .90), utilizing a Likert scale for items specific to nursing clinical experiences such as enjoying work and work quality. The total score demonstrated the stronger reliability and was thus utilized rather than the scores from the sub-scales with internal consistency of .89-.90. The scale has been found to correlate with other instruments measuring job satisfaction (Mueller & McCloskey, 1990)

The Life Events Checklist (Gray et al., 2004) has demonstrated test- retest reliability as well. It is a 17-item questionnaire assessing exposure to events with the capacity to be traumatizing, ranging from natural disasters to assault or death of a close family member. A Likert scale allowed answers from 1= happened to me to 5= does not

apply. All items are than summed for a final score. The LEC score at the initiation of the study was utilized to determine life total stress prior to starting the program. It has convergent validity with the Traumatic Life Events Questionnaire (Gray et al., 2004).

The Compassion Satisfaction and Fatigue Scale (Stamm, 2002) used was a 66 item, self-report questionnaire which measured compassion satisfaction, compassion fatigue or secondary traumatic stress and burnout in those involved in the helper role. The three subscales show internal consistency as alpha .87 for compassion satisfaction, .90 for burnout and .87 for compassion fatigue/ secondary traumatic stress were obtained in this study. An updated Professional Quality of Life Scale Version 5 (Stamm, 2010) was noted to have become available since the study. The newer version has reliability with the older. Participants responded to the extent to which an item applied to them utilizing a Likert scale 0 = never to 5 = very often (Myer et al., 2015).

Descriptive statistics revealed no age and gender differences correlated with the study variables with N= 251. This longitudinal study was undertaken with attention to controlling for preexisting stress on the ultimate compassion satisfaction, burnout and job satisfaction of new graduates, through a correlational analysis and creation of a total of six models. The non-parametric bootstrapping method of analysis allowed controlling for the direct and indirect pre-existing stress-related causes impacting the outcomes of interest in this study (Hayes, 2009). This method estimates a sampling distribution by resampling the distribution 5,000 times in order to calculate indirect effects at a confidence interval at least at 95%. This form of mediation research tested six models to test for indirect effects in this study. In this test, if a zero is crossed by the confidence interval then the indirect effect is not significant. In this study compassion fatigue was a

mediator of indirect effects on both compassion satisfaction and burnout. Compassion fatigue was found to predict lower compassion satisfaction after controlling for pre-existing stress such that (b = -0.18, SE = 0.08, $p < 0.05$) Current stress that was witnessed by the nurse was statistically significant in predicting compassion fatigue when controlling for pre-existing stress (b =1.53, SE = 0.53, $p < .05$) Recommendations were made for hospital administrators to take an active role in preventing compassion fatigue. Pre-existing stress exposure was found to be positively correlated to the nurses perceived current stress (r = 0.27, p <.001). Their compassion fatigue and burnout were positively related as well as expected (b = 0.60, SE = 0.05, $p < .001$). Future studies were encouraged to explore how past experiences with stress primed the healthcare worker to respond resiliently or in a manner less than advantageous for their personal health and to initiate prevention efforts to improve facilitators of stress reduction (Myer et al., 2015).

An earlier quantitative study (Li, Early, Mahrer, Klaristenfeld, & Gold, 2014) out of Los Angeles utilized the same population of nurse interns in the pediatric acute care area, as noted in the Myer (2015) study. In this study, the researchers explored the protective factors of group cohesiveness and organizational commitment on nursing outcomes despite their exposure to stressful work experiences. The proposed model predicted a moderating effect of group support on job satisfaction on burnout and nurse compassion fatigue or satisfaction (Li et al., 2014).

This quantitative study, in the same Nurse Residency Program, utilized a convenience sample of participants in the same location in California. All nurses entering the Versant RN Residency Program at Children's hospital in Los Angeles were asked to participate. This program ran for 22 weeks for new graduates. A convenience sample of

251 participants with the majority N= 231 females agreed to participate. In this group 30.3 % self- identified as white, 19.1% were Asian, and 2.4% were African American. The limits in this study remain a narrowed age range of participants in pediatric practice. This study recruited participants in six entering classes from September 2007 through March 2010 (Li et al., 2014).

The Life Events Checklist (Gray, Litz, Hsu, & Lombardo, 2004) was utilized at the start and again at three months into the pediatric program. This is a 17 -question screening for stressful and traumatizing exposures including: natural disasters, assaults and death of a loved one. The level of exposure ranges from 1= happened to me, 2 = witnessed it, 3 = learned about it, 4 = not sure, 5 = does not apply. The checklist has test retest reliability of $r = 0.82$ and reliability $k > 0.50$. Thus, sums allowed differentiation of stress experienced prior to nursing school and stress presently being experienced. The participants were also instructed to complete the PTSD Checklist Civilian Version, a 17-item questionnaire assessing symptoms consistent with the diagnosis of post-traumatic stress (Weathers, Litz, Huska, & Keane, 1991). The scales assessed symptoms in the nurses for re-experiencing symptoms of distress, avoiding or numbing items, and hyper arousal items. The internal consistency was alpha = 0.94 and the test retest reliability was $r = 0.88$ (Li et al., 2014).

The LEC sum at 3 months was calculated to determine any witnessed or vicarious trauma both in and out of work over that course of time. The stress calculated could also have been from hearing about something serious happening to a loved one, even if not directly witnessing it. The number of nursing residents who reported having had a stressful life event was at a 98.8% at the start. Acknowledged was a 12.1% rate of

personal sexual assault and a 24 % experience with an unwanted sexual encounter to the nurse; 33.5% had a loved one who had a personal sexual assault and 19.9% had a loved one who experienced an unwanted sexual encounter and 23.6% directly experienced a physical assault. Suffering with great loss, 36.8% had witnessed a sudden death of a loved one. Prior to even beginning exposure to the suffering of their patients, 5.6% met the criteria for full PTSD and 12.4 % met a definition of partial PTSD (Li et al., 2014).

Additionally, at three months the participants were issued the Compassion Satisfaction and Fatigue Test (Stamm, 2002). The test has three subscales and alphas for this study: compassion satisfaction (alpha = 0.87), burnout (alpha = 0.90), and compassion fatigue (alpha = 0.87). Participants rate from 0-5 *never* to *very often* how frequently the item asked applies to them. Also administered was the Nurse Job Satisfaction Scale. The Nurse Job Satisfaction Scale (Mueller & McCloskey, 1990) is a 23- item scale to determine overall job satisfaction and ranges from 1= *strongly agree* to 5 = *strongly disagree* and has an alpha = 0.90 for internal consistency. The Group Cohesion Scale (Byrne & Nelson, 1965) was also used as it is a six- item tool used to determine the role of the nurses' interpersonal relationships effect on productivity. The tool has an alpha = 0.89 for internal consistency when summed responses for the 1-6 Likert choices are completed. And finally, the researchers utilized the Organizational Commitment Scale (Porter, Steers, Mowday, & Boulian, 1974) a 15- item instrument for identifying the strength of commitment that a responder has with an organization. A seven- point Likert scale from 1= strongly disagreed to 7 = strongly agreed is then summed 1 through 11 responses. The tool has an internal consistency of alpha= 0.89 (Li et al., 2014).

Descriptive statistics and then a statistical stepwise linear regression in a SAS Statistical Software program was utilized to predict factors related to outcomes of job satisfaction, burnout, and compassion satisfaction. In total four models were utilized to predict: job satisfaction, burnout, compassion satisfaction and compassion fatigue. As hypothesized by the researchers, the nurses' PTSD symptoms were contributing to their ability to experience compassion satisfaction. The regression model $R^2 = 0.16$, F (2,172) = 16.678, $p < .001$ predicting compassion satisfaction, found that 16% of the variance in compassion satisfaction was found in the interaction between group cohesion and current PTSD symptoms and the interaction between current stress exposure and group cohesion. The researchers concluded that group cohesion acted as a moderator on the effect of the current stress and PTSD symptoms and compassion satisfaction. Group cohesion was suggested as a buffer to compassion satisfaction regardless of the current stress and PTSD symptoms. Another model found that nurses' current PTSD symptoms and the *interaction* between group cohesion and the organizational commitment accounted for 18% of the variance in achieved compassion satisfaction scores with $R^2 = 0.18$, F (1,249) =19.03, $p < 0.001$. The relations between group cohesion and organizational commitment were predictive of compassion satisfaction; the final regression model predicting compassion fatigue showed that the interaction between group cohesion and PTSD symptoms and the interaction between group cohesion and current stress level in the nurse accounted for 42% of the variance in compassion fatigue, $R^2 = 0.42$, F (2, 172) = 61.748, $p < .001$. (Li et al., 2014).

Another regression evaluation determined that 49% of the variance in compassion fatigue was accounted for in the providers' current stress exposure plus their preexisting

and current PTSD symptoms as R^2 =0.49, F (3,174) = 53.73, $P < 0.001$. Almost half of the ability to experience compassion fatigue was accounted for by the trauma the nurse had experienced previously or was dealing with presently (Li et al., 2014).

The researchers discussed the implications of the findings considering their understanding of the impact of preexisting stress exposure and PTSD symptoms and risks for new nurses. Group cohesion was *not* found to be statistically significant in predicting job satisfaction. Group cohesion was determined to be a protective factor in mitigating the stress of work on burnout, compassion fatigue, and ultimately improving compassion satisfaction. When added to the effect of organizational commitment, group cohesion also became predictive in that combination with compassion satisfaction. Organizational commitment alone was not found to be protective. This study is limited in generalization since it focused only on pediatric nurses in a California institution (Li et al., 2014).

Recommendations were made for future research to establish cross-sectional and longitudinal data regarding these two variables of work cohesiveness and organizational commitment. Suggestions were made by researchers in this study as to the potential for other outside social supports to be found as contributing protective factors: spiritual support, friends, and therapists. Future studies were called for to determine the protective factors that improve the way nurses respond to stress (Li et al., 2014).

Researchers in Maryland approached the question of burnout, compassion fatigue, compassion satisfaction and secondary traumatic stress in trauma nurses, as they related to personal and environmental factors in trauma nurses (Hinderer et al., 2014). They relied on the work of Figley (1995) and focused only on nurses who had direct care of those who had been through trauma and were in acute care environments.

This study in nursing added to the body of knowledge in trauma nurses as they coped with suffering and pain in patients; this study also established the relationship of compassion fatigue, compassion satisfaction, and burnout to secondary traumatic stress (Hinderer et al., 2014). Secondary traumatic stress was defined as the development of symptoms of Post-Traumatic Stress Disorder (PTSD) because of vicarious exposure to the trauma of others (Bride, 2007).

The theoretical framework of this study was a modification of Dutton and Rubinstein's theory (Dutton & Rubinstein, 1995) which was first developed for social workers caring for traumatized patients. The four areas identified as buffering or adding risk were: (a) personal/environmental, (b) coping strategies, (c) number of exposures, (d) and the reaction of the nurse. This research aim was to correlate those above factors with the development of burnout, compassion fatigue and compassion satisfaction (Hinderer et al., 2014).

The research design was a quantitative, cross sectional, descriptive design. A large urban trauma center was selected, and multiple specialty units were recruited into the study. The hospital served approximately 75,000 patients yearly in a 100-bed facility. The sample size was adequate and inpatient and outpatient clinics were included as well.

All nurses working in the trauma center (N= 262) were eligible to participate in the study. The response rate was only 49% with N = 128. The mean age of participants was 37 years of age with a range of 22-61 years. The average length of time for the nurses working with trauma patients was 8 years in this sample. Most the nurses were white (84%), female (62%) with 72. % holding a bachelor's degree or higher (Hinderer et al., 2014).

The demographic and behavioral information was collected along with scores on two instruments: The Professional Quality of Life scale (Stamm, 2010) and the Penn Inventory (Penn, 1992). The packets were distributed, along with their pay checks, to 262 nurses responsible for direct patient care. The demographic instrument was developed through focus groups and with clinical experts. The survey included questions requiring utilization of a Likert scale to quantify behavioral means of coping utilized by the nurses including relationships with coworkers (Von Reuden, Hinderer, & McQuillan, 2010). The Cronbach alpha for each of the subscales for the ProQOL had previously been established as Compassion Satisfaction = 0.87, Compassion Fatigue = 0.80, and Burn out = 0.72. Construct validity had been established as well and had impacted the use of this tool in multiple nursing quantitative studies (Stamm, 2010). The Cronbach alpha for this sample was 0.67 for the entire instrument with compassion satisfaction = 0.92 at the highest (Hinderer et al., 2014). Scores on the Compassion Satisfaction subscale of 33 or higher have been accepted as reflecting work fulfilment (Hinderer et al., 2014). The Penn inventory (Penn, 1992) is a 26 item Likert scale tool to assess for PTSD symptomology. The internal consistency and validity has been established and for this study the Cronbach alpha was 0.85. Scores on the tool range from zero to 78 and anything higher than 35 was consistent with PTSD or secondary traumatic stress (Von Reuden et al., 2010).

Data analysis was done utilizing SPSS version 15.0 and descriptive statistics were evaluated. Pearson correlations and linear regressions were performed as well on the data. All of this was to ascertain if it were possible to predict secondary traumatic

stress from Burnout, Compassion Fatigue or Compassion Satisfaction (Hinderer et al., 2014).

Burnout and compassion fatigue were both negatively correlated to compassion satisfaction and positively correlated to each other ($p < 0.000$). The same types of correlation were found with secondary traumatic stress (Hinderer et al., 2014). In this study, 35.9% of the nurses experienced symptoms of burnout, and 27.3% had symptoms of compassion fatigue. Also, of note, 78.9% (N=101) expressed feeling above average compassion satisfaction due to their work. A full 21.1% (N= 27) indicated a low score on compassion satisfaction. Compassion fatigue and compassion satisfaction are not mutually exclusive though inversely related. Compassion fatigue and burnout were inversely and statistically significantly related to compassion satisfaction ($p < 0.000$). Nurses with higher compassion satisfaction were less likely to develop secondary trauma symptoms ($p = 0.000$) and improved compassion satisfaction was correlated with greater age in the nurse and lower education status. The researchers speculated that this was due to less promotional opportunities for those at higher levels which became an added stress. Also, positively associated with compassion satisfaction was having a caring supportive relationship with co-workers and not needing to resort to using pharmaceuticals as a form of coping ($p = 0.024$). Nine nurses or only 7% of this sample had Penn scores reflecting secondary traumatic stress or a score greater than 35. Higher compassion satisfaction was also found with stronger support outside of work including: use of exercise and practicing meditation. Nurses with more years in trauma care also had higher burnout and worked longer hours in a shift. Trauma nurses with higher burnout also had higher secondary

stress ($p = 0.001$) and those with higher compassion satisfaction had lower ($p = 0.006$) secondary stress (Hinderer et al., 2014).

Limitations of the study included the fact that the Penn Inventory (1992) used had not, to this point, been validated with nurses. It was used to assess the secondary traumatic stress of the participants. The limits to the study also included the fact that a single institution was sampled. The packets were distributed to nurses responsible for direct patient care and social desirability may have impacted the responses achieved. The researchers called for future research to explore, among other things, the variables in coping that facilitate compassion satisfaction while acknowledging the importance of the relationship with coworkers. These understandings could drive interventions and support programs at the institutional level, as well as at the unit and the personal level. Also, of need for attention is a correlation between these scores in nurses and overall patient satisfaction scores (Hinderer et al., 2014).

In a study by Yoder (2010), nurses who reported getting a sense of accomplishment from their work, as depicted in scores from the compassion satisfaction subscale, also had lower scores on subscales measuring burnout and compassion fatigue. Yoder utilized the definition of Valent (2002) differentiating compassion fatigue and burnout, as two responses to failed survival strategies, such that compassion fatigue is a failed rescue response and burnout is a failed achievement response. The first or compassion fatigue results in guilt and burnout, results in a decreased morale for the care-provider (Yoder, 2010).

The purpose of this quantitative, mixed methods study was to: explore the prevalence of compassion fatigue across specialties of nurses, in particular in this study,

those working in hospital settings and home health. The aim was to determine the relationship of compassion satisfaction to the other two terms of fatigue and burnout and identify the triggers and buffers used effectively by professionals to cope with their work stress. Participants came from a Midwest 123 bed hospital that had achieved Magnet status. There were in total N = 178 RNs who qualified to participate. Survey instruments were placed in the mailboxes of nurses and yielded a return of 106 in total. Out of those, 71 had completed all questions including the narrative responses. The demographics revealed: 14% of the participants were less than 30 years of age, 45% had a bachelor's degree, 39% had less than 10 years of nursing experience 68% had worked less than 10 years at this institution (Yoder, 2010).

The ProQOL R-IV (Stamm, 1997-2005) Professional Quality of Life Scale was used at the time of this study, a version of the Figley Compassion Fatigue Test (1995). The three subscales are uniquely calculated and utilize a Likert scale of zero to 5 for *never* to *very often*. Construct validity and convergent and discriminant measures had ascertained the distinct and coherent constructs of compassion satisfaction (alpha= 0.87), compassion fatigue (alpha = 0.80), and burnout (alpha = 0.72). Compassion satisfaction was the positive yield for the provider from caring work (Stamm, 2005). The qualitative questions were: describe a clinical experience that resulted in compassion fatigue and burnout and what coping measures helped you to get through? The alpha reliability for this study was 0.87 for compassion satisfaction, 0.70 for burnout and 0.75 for compassion fatigue (Yoder, 2010).

Statistical analysis was Minitab software (Minitab Inc, State College, PA) utilizing (Anova) One-way analysis of variance. The constructs of compassion fatigue

and burnout were negatively correlated with compassion satisfaction with Pearson's r = -29 to -.60, $p < .01$. Those with higher compassion satisfaction scores, identified with work as fulfilling, rather than associated with exhaustion or rumination. The number of participants identified at risk for experiencing decreased compassion satisfaction was at 8.6% and 15.8% of the participants were determined to be at risk for an increase in compassion fatigue (Yoder, 2010).

Data analysis for the qualitative component, with N = 71, used content analysis to identify themes pertaining to coping strategies (Polit & Beck, 2008). Factors triggering negative responses were divided into previously identified categories: the act of caring for patients, system problems and past difficult personal issues leading to the provider identifying with a patient in the present (Maytum, Heiman, & Garwich, 2004). Participants, at 10% (N = 13), identified the role of spirituality, as a strategy to sustain themselves in the role of care- provider. Recommendations by researchers called for further research efforts toward understanding the role of formal debriefing, as this study only considered the informal effects of debriefing. These informal effects were identified as positive by 13% of participants or N= 17. The category, identified as having a positive impact on compassion fatigue and burnout (58% or N=78), was work related support. The researcher called for future work to determine, yet to be identified buffers, against the risk of compassion fatigue. Limitations of this study included the fact that the researcher was well known to the participants and data was collected from only one institution. Also unknown is the state of compassion fatigue and satisfaction among the nurses who opted to not participate. The researcher concluded that there may be a role for

compassion satisfaction in mitigating the outcome of compassion fatigue/burnout. (Yoder, 2010).

An international perspective, on the price of caregiving on the provider, was explored in a qualitative study conducted by Uren and Graham (2013). The purpose of this study was to explore the emotional experience of care providers, in a palliative care setting, to ascertain their coping strategies. An interpretative, phenomenological paradigm was utilized to understand the experience of the health providers. The authors utilized *adaptation theory* to explain the effectiveness of coping with long-term stress in providers (Miller & McFall, 1991). Confidentiality was strictly adhered to in order to control for internal validity. Also addressed was the cumulative load, as articulated in the *stress proliferation theory,* as care providers experienced a domino effect of stressors on top of stressors (Perlin, Aneschensel, & Leblanc, 1997).

The setting was a formal community-based institution, that traditionally allowed for more intimacy with patients through respite care and end of life care for 18 terminally ill patients and their families. One limit of the study was the fact that not all providers were nurses; some were defined as professionals in caring who had received training. Three of the 11 participants were men. They all ranged in experience from 2-13 years with an age range of 20-65 (Uren & Graham, 2013).

Semi-structured interviews were used to gain the data. The first part focused on the providers' perceived role. The second part focused on any effects of providing care to the provider, whether negative or positive. Individual means of coping were given attention. Content validity was addressed by two unidentified university staff members. A thematic content analysis approach was utilized to fully capture the richness of the

data. Codes were used to synthesize units of meaning and then group them together in larger themes. A holistic conceptualization of the verbal expressions was tied together within this context. The taped transcripts allowed for rigor in processing verbatim the disclosures shared. The findings resulting from this work revealed several themes. Included were: finding the right support person, seeking alternative supports, and moving toward acceptance rather than giving in to disillusionment (Uren & Graham, 2013).

Without the right confidant to help with debriefing, care providers bore the burden of more stress. Initially, the responsibility for finding this support person added stress on the provider. Ineffective coping with substance abuse, was one of the factors identified in this study, that led to an increase in the providers' total experience of having an emotional load to carry. Positive coping alternatives included the use of spirituality and music. The size of the sample diminishes the capacity to generalize the results of this study (Uren & Graham, 2013).

Another mixed method, conducted by Killian (2008), was undertaken to decipher the experiences and perceptions of clinicians and to explore their buffers and coping strategies for personal work- related stress. Secondly, using cross-sectional data the role of the therapists' past trauma history, along with their present social support, and self-awareness and work environments, as they correlated to compassion satisfaction and burnout were investigated (Killian, 2008).

Definitions of compassion fatigue, described by affective responses, included the provider experiencing fear and anxiety. Experiencing compassion satisfaction left the provider with a feeling of happiness, as it related to the care provided. Burnout was

experienced, as exhaustion emotionally with a general feeling of futility (Figley, 2002; Larsen, Stamm, & Davis, 2002).

Participants consisted of N = 20 participants with 16 females in a large city in Texas. The ages ranged from 28-57 with a mean of 8 years working with clients who had experienced child sexual abuse. In this group 15 were Caucasian, 2 were African American, 2 were Latina and 1 was Asian. All participants had master's degrees or above educational backgrounds and were licensed to provide counseling. Interviews were semi - structured and queried the participants use of coping strategies with their work-related stress. The data was coded and analyzed and guided by grounded theory (Glaser & Strauss, 1967). Aided by a software program HyperSEARCH 2.7 (ResearchWare, 2004), commonalities were identified and categorized as: recognizing symptoms of work stress, risks for burnout, self-care measures and definitions. Personal histories of traumas were the second most frequent contributors to work stress, only higher was having a present heavy caseload. All therapists stated that spirituality was a major contributor in their self-care practices. The findings are limited by the small sample investigated (Killian, 2008).

The quantitative part of the research had a larger N=104 number of therapists with 21 males and 84 females. The participants were recruited from three agencies in the southern part of the United States. The diversity was 48% White, 21% African American, 21% Latina and 10% Asian. The ages ranged from 25 to 64 mean age of 38. The average time for having worked in the therapist position was 9 years. The number of patients seen weekly ranged from 5- 40 with a mean of 19 patients. Demographic information obtained included questions regarding personal trauma history, social support, affective coping style, self-care strategies, emotional self-awareness, environmental stressors and drains,

along with resources. Personal trauma history was obtained by listing examples and asking, if and how many times and how stressful it had been, if any were chosen. Solicited also, was whether there had been an event that happened, that they were not willing to speak about. Symptoms of compassion satisfaction and fatigue were measured by the ProQOL III: Compassion fatigue and satisfaction subsets R-III (Stamm, 2003).

Multiple regressions were run, and three variables were found to account for 41% of the variance in compassion satisfaction such that F =14.32, $p < .001$. The variables were: social support ($B = .46$), weekly hours worked ($B = -0.37$) and sense of control at work ($B = .22$). Level of social support including friends and family was the greatest predictor of compassion satisfaction with $p < 0.001$. Another multiple regression evaluation found 54% of the variance in compassion fatigue (F = 15.24, $p < 0.001$) was accounted for by four variables, one of which was the history of trauma experienced personally by the therapist with $B = 0.23$. Emotional self- awareness was negatively related to compassion fatigue with $B = -0.24$. This study confirmed that social support is crucial to an outcome of compassion satisfaction, as is the avoidance of overloading the case loads of therapists and providing them with sense of control at work. This study did find significant correlation between individual coping skills and compassion satisfaction or fatigue. Limitations of the study were the sample size. The researcher called for systems to implement change rather than only placing the onus for resilience and sustainability on the individual doing the trauma work. As well the researcher points to the advantages of addressing personal trauma to avoid its depleting influence on the trauma work done with patients (Killian, 2008).

Compassion fatigue, burnout and compassion satisfaction among Colorado child protection workers was the focus of a study conducted by Conrad & Kellar-Guenther (2006). This quantitative study set out to determine the prevalence of secondary trauma stress among 363 Colorado child protection workers. The purpose of the study was to understand the professional risk for: compassion fatigue or trauma from helping others and risk for burnout, as defined as emotional exhaustion, depersonalization and diminished sense of accomplishment. Finally, the aim was to understand the potential for fulfilment or compassion satisfaction resulting from the role. The sample consisted of

N = 326 females in this study. The mean age of participants was 36.5 years. Of the participants, N = 273 worked in an urban area of Colorado, N = 276 were caseworkers and N = 28 of the participants were supervisors. Respondents had a mean of 8.4 years in child protection. Researchers collected self- report information from participants over 10 months across twelve counties. The sample was a convenience sample from participants in a secondary trauma training seminar. There were 36 seminars in total provided (Conrad & Kellar-Guenther, 2006).

The instruments used were developed by Stamm and Figley the Compassion Satisfaction/Fatigue Self-Test (Figley & Stamm, 1996). The Compassion Satisfaction/Fatigue Self-Test is a 66 -item instrument with three subscales that measure compassion fatigue, burnout and compassion satisfaction (Figley & Stamm, 1996). The Cronbach alpha for this test with child protection workers was alpha = 0.84. Burnout for this study was alpha = 0.84 as opposed to a higher score of alpha = 0.90 in Figley and Stamm. Compassion Satisfaction scale was reliable with a Cronbach alpha = 0.86 compared to alpha 0.87 with the originators (Figley & Stamm, 1996).

Scoring answers were summed and reclassified into extremely low risk for (0-26), low risk for (27-30), moderate risk for (31-35), high risk for (36-40), and extremely high risk for (41-115) developing compassion fatigue. As well as extremely low risk for (0-36), moderate risk for (37-50), high risk (51-57), or extremely high risk (76-85) for an outcome of burnout. And lastly the scoring for compassion satisfaction was scored as extremely high potential (118-130), high potential (100-117), good potential (83-99), modest potential (64-81), and low potential (0-63). Statistical *t* tests were done between those scoring highest and lowest on compassion satisfaction with the other two constructs of compassion fatigue and burnout (Conrad & Kellar-Guenther, 2006).

Participants who had high compassion satisfaction scores had lower levels on compassion fatigue and burnout with p =.000 with a mean 35.7 and p = .000 with a mean 32.9 respectively. Though almost 50% of the participants in the study were at or above high risk of compassion fatigue (N= 341) only 7.7% were at high or greater for burnout,

(N = 355) and 75% scored a good or high potential for compassion satisfaction with N = 331. Those with higher compassion satisfaction were statistically significantly lower on burnout and compassion fatigue. Compassion satisfaction, as a term that came from the secondary traumatic stress literature, was implicated in mitigating the effects of burnout in studies with child protection workers in this state of Colorado. Limitations noted by the researchers were the use of geographically limited recruitment of cross-sectional participants, rather than more extensively recruited participants, and the utilization of a longitudinal design. Protective factors noted included social supports and having an opportunity to debrief (Conrad & Kellar-Guenther, 2006).

Adverse Childhood Experiences

The ACE study (Felitti et al., 1998) utilized a retrospective, cohorts design to investigate the relationship of childhood trauma and adult health outcomes. A questionnaire was mailed to 13, 494 adults who had previously had a medical exam at a large HMO. From those recruited, 70.5% responded, such that 9, 508 participants responded to questions involving seven categories of adverse childhood experiences. The numbers of categories were then correlated with risky behaviors, the participants' health status and any disease diagnoses of each participant. Greater than half of the responders had at least one adverse experience and 25% acknowledged 2 or more adverse experiences (Felitti et al., 1998).

The Adverse Childhood Experiences (ACE) study was conducted in a primary care setting and aimed to explore the relationship of childhood abuse and home dysfunction prospectively and retrospectively to prevalence and incidence of adult disease and associated risk factors and the quality of life and mortality of those studied. Most members utilizing Kaiser Permanente's free-standing clinic in San Diego were there by self-referral. Health Plan members who completed medical evaluations between August to November 1995 and January – March 1996 were eligible for the study (Felitti et al., 1998).

Completed questionnaires were then matched with the medical records of the participants and evaluations showed no difference in age, years of education and gender between responders and non-participants for the study. One question was answered by respondents more affirmatively than non- responders and that was one of sexual abuse in their childhood at 6.1% for responders and 5.4% for non-responders. All questions asked

respondents to consider abuse that had occurred prior to their reaching 18 years of life. Three categories of childhood abuse were differentiated: psychological abuse, physical abuse, and sexual abuse. Household dysfunction included: exposure to substance abuse, mental illness, violent treatment of mom or stepmom and criminal behavior in the home. The total sum was the total of exposures, each counting as one for present or zero for never occurring. Ten risk factors were screened for representing the leading contributors to morbidity and mortality: smoking, obesity, physical inactivity, depression, suicide attempts, alcoholism or any drug abuse and having had many sexual partners and a history of having had a sexually transmitted disease. And finally, diseases were screened for including: heart disease, cancer, stroke, COPD, diabetes, hepatitis and factures as a means for screening for intentional injury. Lastly, the question was asked, as to how they would rate their health ranging from poor to excellent. Exclusions were 51 potential participants who had not included their race and 34 who had not indicated their educational level (Felitti et al., 1998).

The researchers used the Statistical Analysis System (SAS) for the programing. Logistic regression analysis was used to adjust for the potential confounding effects of age, sex, race and education level. To determine dose response of childhood abuse variables they were entered one at a time from 0-7. The most prevalent adverse childhood exposure was living with substance abuse in the household at 25.6%. The least prevalent was criminal exposure in the household at 3.4%. Four or more exposures were experienced by 6.2% of the participants. Both the prevalence and risk increased as the number of exposures increased for: smoking, obesity, suicide attempts and depression. As well, negative exposures in childhood increased the odds ratio for: alcoholism and STIs

and sexual partner numbers increased. All of these factors impacted the participants such that odds ratios ranged from 10.3 for injected drugs and 7.4 for alcoholism and 2.5 for STIs. In logistics regressions models, which included demographic variables, there was found a statistically significant ($p < 0.001$) dose-response relationship between adversities and each of the leading causes of death. A strong graded relationship was established with this study for adverse childhood experiences and lifelong negative sequelae. The researchers in this study found participants welcome to questions regarding their sexual abuse and they suggested that fears around the topic of whether to ask or not are a challenge to overcome if the needs of patients are to be met (Felitti, 2009).

More recently, a quantitative study (Nurius, Green, Logan-Green, & Borja, 2015), to determine the consequences of adverse childhood experiences on adult psychological well-being, was conducted in the state of Washington. The researchers proposed that early adversity would cumulatively and interactively influence adult health. Data was taken from the 2010 Behavioral Risk Factor Surveillance System (BRFSS) which had previously been obtained by randomly dialed telephone surveys conducted by the Centers for Disease Control and Prevention. Inclusion criteria included: participants 18 years and older, English or Spanish speaking, owning a landline. The state of Washington further used a disproportionate stratified sampling method so that only one adult per household was questioned. The refusal rate was approximately 18% for eligible adults (Nurius et al., 2015).

The study sampled yielded 13,593 participants and consisted of 60.7% females with an average age of 57.1 years of age. The participants were made up of 33.8% who had reached 65 years or older and 23.8% who were 44 years or younger. This sample

represented participants who were 86.9% Caucasian, 5% Latino, 2.2% Asian, 1.3% African American, 1.2% Native American, 3.4% other. Approximately 1/3 had an income of 35,000 and or less and 28.1% received 75,000 or more. Of the participants, 38.7% had a college degree, 32.2% had some college education, 23.4 % had a high school degree and 5.8% never completed high school. Sample weights based on population estimates were used to correct for younger age and the male gender discrepancy (Nurius et al., 2015).

This quantitative study measured demographics and Adverse Childhood Experiences (ACE) scores. This score was arrived at, by summing yes or no responses, to eight ACE categories in their childhood home prior to their 18th birthday. These included: mental illness, substance abuse, incarceration of a family member, parents divorcing, witnessing domestic abuse, being a victim of physical abuse, sexual abuse (by some person 5 years or older), and verbal abuse. Scores could range from 0-8 and were distributed as follows: 1 = 21.99%, 2 = 13.44%, 3 = 8.78%, 4 = 6.35%, 5 = 4.81%, 6 = 2.67%, 7 = 1.45% and 8 = 0.41%. Significant Adult Stressors were summed up from yes or no answers to questions including: incarceration, homelessness, loss of relationship (death or divorce), fired from a job, and disability status. The scores ranged from 0-5 and had a mean of 0.57 with a SD =0.80. Resiliency/Community resources were assessed with two questions: frequency of emotional and social support rated with a five-point Likert scale from *never* to *always* and their level of satisfaction with their community resources with a four -point Likert scale. Stress ameliorating health habits index gauged in an ordinal scale the identified number of hours of sleep and physical activity for the participants. And finally, Mental Health was assessed in three areas:

perceived well- being, psychological distress and missed days of work/activities. Well-being is a mean score from a 5-point Likert scale ranging from strongly agree to strongly disagree (M=4.11, SD = .78; alpha = 0.90). Psychological distress encompassed six symptoms of mental health problems: nervousness, hopelessness, restlessness and depression all assessed on a Likert scale of *none* to *all the time* (M= 1.46, SD = 0.56; alpha = 0.82). Missed days was an ordinal variable measuring the number of days in total in the last month (0-30) that a mental health issue interfered with usual activities (M = 0.88, SD = 4.05) (Nurius et al., 2015).

Bivariate correlations among study variables were utilized followed by hierarchical regressions. All bivariate correlations were statistically significant ($p < 0.001$). Ace scores were especially associated with psychological distress such that higher ACE scores were statistically significantly associated with all mental health outcomes. All model statistics and R^2 values were statistically significant at $p < 0.001$. Higher ACE scores were associated with poorer adult conditions and diminished resources. The researchers referred to this as a cascade of processes that accumulate stress and collectively diminish psychological well- being. Strong social support was implicated in buffering cognitive responses and providing for a sense of efficacy even after ACEs. Standardized coefficients, controlling for demographics and social economic status, was 0.77 in the test for moderating effects of a sense of community and 0.33 for health habits with $p < 0.001$. Individuals with high childhood adversity but lower adult stressors and high adult support had outcomes for mental health resembling those of respondents with low ACE histories. Those with high ACEs who reported good sleep patterns and healthy activities missed almost no work days thus providing the strongest moderating influence.

The researchers encouraged adaption of a people centered, team approach to care that considers patients' social ecologies. It was suggested that future research needs to identify other protective factors. Also recommended was a life course cumulative adversity model assessment that targeted vulnerability and fostered capacity in the individual, family and at the community level. According to the researchers, assessing for child maltreatment needs to become common place. Adversity assessment needs to continue into adulthood as well. Childhood trauma is not conclusive for negative outcome as wellness can be achieved through support and cognitive interventions and health habits such that ACEs are made better or worse by adult stress and resilience resources (Nurius et al., 2015).

A study of Betrayal Trauma Theory (Freyd, 1996), was applied to the quantitative ACE study data to test whether adults with high betrayal (HB) abuse would report worse functioning than low betrayal (LB) abuse victims when evaluated for mental health consequences (Edwards, Freyd, Dube, Anda, & Felitti, 2012). To explore this hypothesis the data from the original Ace study was utilized (Felitti et al., 1998). The study had used retrospective cohorts design to investigate the relationship between childhood trauma and adult health outcomes. Data was collected in 1995 and again in Wave 1 January and March 1996 and Wave 2 in April and October of 1997. To determine if child sexual abuse victims were perpetrated on by family, rather than non-kin abusers, the abuser categories in the ACE study were collapsed into high and low betrayal trauma groups (Edwards et al., 2012).

The health outcomes evaluated fell into two categories: functional health and mental health. The functional health outcomes were drawn from SF-36 scales and

measured: physical functioning, roles impacted, bodily pain, general health, vitality, social functioning and emotional problem interference (Ware & Sherbourne, 1992). The higher the scores the better the functioning (Edwards et al., 2012).

The descriptive statistics were done followed by mediation analysis to identify the relationship between betrayal and functional and mental health outcomes. Ace scores were calculated minus the scores for sexual abuse. The Sobel test (Sobel, 1982) was done to determine the indirect effect of the independent variable of betrayal on the dependent variable of the ACE score minus the sexual abuse score. When the dependent variable was a SF-36 variable the researchers utilized linear regression measures. When the dichotomous mental health outcomes were the dependent variable, logistic regression analyses were chosen to ascertain a relationship (Edwards et al., 2012).

Of the 17, 337 participants in the ACE study 3,100 or 17.8% stated they had experienced child sexual abuse. Men were three times more likely to report that their perpetrators had been a stranger than the women answering affirmatively to the question. This amounted to 26.6% for men and 9.2% for the women. The chi-square for the perpetrator type by sex was statistically significant such that, X^2 (5, N = 3,100) = 218.59, $p < .001$. Of the participants, N = 803 women reported sexual abuse and were in the high betrayal group, while N = 216 of men or 21.4% of the men reporting sexual abuse were in the high betrayal category. Thus, in adults who experienced childhood sexual abuse, women were 1.8 times more likely to be in the high betrayal category than men. Participants in the high betrayal group had statistically significant higher mean ACE scores overall than the low betrayal group with 2.72 vs 1.87, F (1, 3,098) = 171.1, $p <$ .001. High betrayal participants scored at least one other ACE at 86.9% compared to

76.1% of low betrayal victims of child sexual abuse. High betrayal participants also had lower functional health scores on 4 out of 7 of the SF-36 scales $p < .04$ involving categories for: role physical, role- emotional, social functioning and mental health. As well, high betrayal participants had higher depression and anxiety $p < .05$. High betrayals were linked to additional trauma as 42.1% reporting high betrayal also reported additional victimization, as opposed to 12.6% in the low betrayal category. The limitations of this study were recognized as betrayal trauma was extrapolated from the data rather than directly measured in these previously collected sample data. Also, was the consideration that the childhood sexual trauma identified by participants cannot be otherwise verified but was found to be in line with other studies with representative samples. The ACE scores completely mediated the mental health outcomes $p < .001$ and partially mediated the functional health outcomes $p < .06$ in this study. The ACE score fully mediated the relationship between betrayal and panic at 73%, suicidality at 60%, anxiety at 52.9% depression at 45.0% and anger at 44.3% (Edwards et al., 2012).

A quantitative case-controlled study addressed the impact of the horrific man-made catastrophe of the Holocaust, as the childhood trauma experienced by participants (Fridman, Bakermans-Kranenburg, Sagi-Schwartz, & Van IJzendoorn, 2011). Researchers from the Center for Child Development hypothesized that, 70 years after the Holocaust, survivors would be showing symptoms of post- traumatic stress disorder and that their offspring would *not* differ from their counterparts in mental health. Populations were recruited from demographic information provided by the registry administered by the Israeli Ministry of Interior. Two groups were compared: the first generation of female childhood Holocaust survivors and their daughters and a matched comparison group that

had not experienced this childhood trauma. Thirty-two first generation survivors and 33 comparison respondents agreed to participate. The ages ranged from 71 to 84 with M = 76.98, SD = 2.99. The age of the second -generation participants ranged from 38-59 years of age with a mean of 47.46 and SD = 4.41.

The instruments used were: The Dissociative Experiences Scale (DES) which has 28-item and two subscales from the Mental Health Inventory a 14-item questionnaire addressing stress. The DES has a total score which is calculated by averaging the scores with a possibility of 0-100. Cronbach's alpha was 0.86 for the first generation and 0.83 for the second. The Mental Health Inventory used a 6-point Likert scale reflecting stress experienced in the last month. Cronbach's alpha for the first and second generation were 0.84 and 0.95 respectively. A Satisfaction with Life scale utilized a 1-7 Likert score achieving an overall score with summation. Higher scores represent higher satisfaction with life. Cronbach's alphas were 0.65 and 0.84 for the first and second generations. Cognition was established with the Telephone Instrument for Cognitive Status Modified. This instrument has 21-items and has a maximum score of 50. Convergent validity and test retest validity has been established. The questions evaluate memory, orientation, attention, language and abstraction. Physical Health was assessed with an instrument developed in Tel Aviv, the subjects used a five- point Likert scale to rate 1 = *very unhealthy* to 5 = *very healthy*. Also, they were asked to identify any of the 19 listed health problems they had suffered. The total ranged from 0 to 15 for the first generation and 0 to 8 for the second. The correlation between the two health measures was $r = 0.62$, $p < 0.01$ and $r = 0.27$, $p < 0.05$ for the first and second generations. And finally, The Life Events checklist was developed for this study. Participants marked which experience they

had been through in the last year and then indicated the severity of the event with a Likert scale of three points. The correlation between the first and second generations were $r = 0.91$, $p < 0.01$ and $r = 0.93$, $p < 0.01$(Fridman et al., 2011).

To avoid bias, outliers above or below SD = 3.3 were not utilized in the calculations. One case was eliminated as the results indicated clinical symptoms of dissociation. Repeated measures ANOVA showed stability of mental health both for survivors and comparison groups such that $F(1, 58) = 5.36$, $p < 0.05$. However, Holocaust survivors, when compared to non-traumatized adults, were less satisfied with their life and suffered from more cognitive impairments, $t(62) = 2.19$, $p < 0.05$ and $t(63) = -3.38$, $p < 0.01$. They also perceived their life events as more stressful, $t(63) = 2.35$, $p < 0.05$. Multivariate logistic regressions revealed that participants who were less satisfied with their lives and showed more dissociative symptoms were likely to belong to the Holocaust survivors. There were no differences found between the survivors' daughters and the comparisons' daughters across all measures. Significant positive correlations were found between survivors and their daughters on the total sum of stressful life events such that $r = -0.53$, $p < 0.01$. As the stress of the mother increased so did the daughter's stress. The researchers concluded that evidence of early trauma was still found 70 years later. Survivors showed more dissociative symptomology (odds = 2.39) and less satisfaction with life when compared to a matched group who had not experienced childhood trauma (odds = 2.79). Resilience was recognized as the survivors did not pass their trauma to another generation through their children. All survivors in the study had lost their own parents in the war. They presently wish to be viewed as *witnesses* to history and not *victims of history*. A limit to the study was the subjective self-reporting,

the limited sample size and only having female participants. Though imprints from abuse were noted on these survivors even decades after the trauma, the researchers called for investigations into the protective factors that exist after these extreme experiences, as physically, psychologically and cognitively these participants were no different than those in the comparison group (Fridman et al., 2011).

In one mixed method study by Donohoe (2010), the providers of care to the mentally ill, served as the sample. The mental health workers were educated for an eight - hour in-service regarding the facts vs myths of how patients disclose, and they were offered skills concerning the appropriate responses to the disclosures. The purpose of this quantitative, intervention study was to determine the effect of education on the practices and attitudes of those health providers around client early trauma disclosures after participating in the educational intervention (Donohoe, 2010).

The goal of the study was to make screening for sexual abuse less taboo and assist providers with their comfort levels during the therapeutic interaction. A total of 53 professionals took a didactic course which included role playing and reviewing case studies. Ultimately 30 subjects completed the questionnaire at the conclusion of the education process to ascertain the impact of the content on their attitudes and skills. There were 25 females and 5 males in the sample and these were: one nurse designated as the co-morbidity nurse, seven staff nurses, 4 ward managers, 4 social workers, 3 psychiatric nurses, 3 occupational therapists, 2 support workers and an assistant, one instructor and one physiotherapist. They ranged in age from 27-61 years with 5 choosing not to state their age. Their work experience ranged from 2.5 years of working up to 27 years. Each participant was contacted via e-mail to set up a 20-minute time for qualitative

answers to be added to their quantitative answers. The questionnaire had questions addressing four parts: how to talk to clients about abuse, disclosures of abuse, your personal beliefs and the training itself (Donohoe, 2010).

The second questionnaire focused on the barriers to asking about sexual abuse: time, rapport, fear, inadequate skills, belief that the information is not presently relative to the patients' care. Descriptive analysis was utilized. Of the N= 30 participants, 62% stated that the gender of the patient did *not* impact whether they broached the subject of abuse. Also 79% were not influenced by the age of the client in their decision to ask or not ask about maltreatment. Of these participants, 60% had received disclosures of abuse with 94% believing it was crucial to ask about the history. However, 83% of the participants believed that false reports of abuse are made at times. Only 36% of those who believed false reports do occur, believed that it was due to false memories of their patients. They believed, especially in the mentally ill population, these disclosures of abuse were delusional or fabrications of a patient with a personality disorder. Of the 30 participants, 8% believed that false reports were a consequence of the clients' misinterpretation of what constitutes abuse and 4% believed Munchausen's disease played a role, as did the desire to hurt or protect someone else. Half of the participants had received training about the topic of sexual abuse from the British National Health Service, yet 77% of the participants felt that the new training would adventitiously impact their clinical practice. Almost half, or 47% of the participants, replied that the training was missing in some way without stating the variable they perceived as missing. And 5% stated that they had discounted a disclosure provided to them in the past because it was

missing a detail, they deemed important to hear in order to believe the statement (Donohoe, 2010).

The limitations of this study included: the small sample size, social desirability factors and personal ways of learning. The questionnaire was critiqued for have leading questions, as for instance, the topic of false reports was directly asked for rather than allowing a narrative to assess for it. Also, notably missing, were questions around providers past personal maltreatment, as this may have contributed to the low yield of volunteers for participating in the first place (Donohoe, 2010).

Another study in 2016 took on the task of comparing retrospective and prospective measures of adverse childhood experiences (ACEs) in predicting deleterious outcomes in adulthood (Reuben et al., 2016). The purpose of the study was to compare retrospective and prospective measures of ACEs, as other studies, done previously, had relied only on self- report measures for data (Felitti et al., 1998; Felitti, 2009). These researchers anticipated a difference between objective measures to confirm responses and subjective self -reports of early trauma (Reuben et al., 2016).

Participants N = 1, 037, were members of the Dunedin longitudinal, cohort study (Poulton, Moffitt, & Silva, 2015) out of New Zealand. All were born between April 1972 and March 1973. Participants were eligible by their selected birth province and all had started their initial assessments at age 3. This cohort was representative of the general population in New Zealand's South Island. Fewer than 7% were non-white and these children were assessed at ages: 3, 5, 7, 9, 11, 13, 15, 18, 21, 26, 32 and 38 years of age retaining 1,007 of the participants over the years. The US Centers for Disease Control and Prevention (CDC) has formulated a framework for conceptualizing adverse

childhood experiences and the 10 categories were used in this study based on that work (Felitti et al., 1998). The ACE's were operationally defined in the 1990's and the Dunedin study began in the 70's so the definitions were adjusted to pick up the more recently determined risk factors. The participants were questioned retrospectively regarding their family substance abuse, mental illness, and incarceration as well as domestic abuse. Prospective accounts included; reports to social services, structured notes from pediatricians, as well as from teachers and nurses, and finally evidence of criminality of parent records were reviewed (Reuben et al., 2016).

Analysis for attrition showed no significant loss of those exposed to adversity and those who were not exposed ($p = 0.12$). Four independent raters who had been trained by the CDC reviewed the data as well. In total, 80% of the time 3 out of 4 trainers agreed on the defined ACE's. Sexual abuse had not been previously assessed for, as it was believed to be rare in the 1970's (Jenning, 2008). Each ACE was coded as present or 1 or zero for absent. The outcomes of adult health included: physical, cognitive, mental and social health when assessing for consequences of these early experiences. The Big Five personality traits were assessed for as well, at age 38, by sending an evaluation to a very close partner or friend of the participant, who then completed a survey on the participants' personality characteristics with a brief version of Big Five Inventory (Israel et al., 2014; Barrick & Mount, 1991).

Cohen's Kappa coefficients were run to determine correlation between the ACE scores prospectively and retrospectively. At the total score ACE results, the correlation was $r = 0.47$, $p < 0.001$. Precise agreement was considered fair with a weighted Kappa = 0.31, CI: 0.27-0.35. Parental loss changed the agreement between objective and

subjective reporting, suggesting a role for memory in the outcomes. Higher ACE's were associated with later life negative outcomes. Linear analysis indicated that the stronger predictor of health or appraisals of current life outcomes were the individual's *beliefs* about their childhood adversity. The ACEs were run separately to determine if any one ACE changed the outcome and none was found to change the total score. Results did indicate that three personality traits were statistically significantly tied to a discrepancy between retrospective and prospective data. These traits were: Neuroticism ($r = 0.10$, $p < 0.01$), Conscientiousness ($r = -.07$, $p < 0.05$) and Agreeableness ($r = -0.09$, $p < 0.01$). Thus indicating, those with a high Agreeableness score also scored fewer remembered ACEs than those scoring high on Neuroticism and low on Conscientiousness. Individual who recalled four or more ACE's also reported poor self-rated health in the order of $d = 0.44$. Modest levels of retrospective and prospective agreement on ACE measures are suggestive of a *complementary relationship* by the researchers and not invalidating. The authors conclude that participants who have more problems in adulthood, report having had more problems in childhood across domains of physical, cognitive mental and social health. There was a strong association between recalled adversity and poor self-rated health. It was suggested that individuals who *over* recall ACEs and *under* rate health and individuals who under report ACEs and over rate health require caution in interpretation, especially in domains where there did not exist objective evidence. Thus, the authors suggest a downward correction may be warranted, as a negative mood at the time of recall may have resulted in a negative recollection bias. Whereas healthy participants, or those without current problems, may be more willing to forget and even forgive (Robbins et al., 1985). This study data suggested that trait personality characteristics may influence

the process of forgetting and forgiving. Thus, a positive approach to life in general may lend toward a biased positive view of childhood and the opposite may be true for those with a more negative personality. Thus, the researchers caution the ACE scores may be less predictive due to these contributing factors of trait personality type. Acknowledged also were the present objectively determined deleterious health consequences despite the retrospective denial of past trauma. Thus, adversity still results in physical and cognitive health deleterious outcomes, even if past abuse memories are not part of daily consciousness. A limitation noted was that the authors did not expand the ACE definitions from the original work of Felitti (Felitti et al., 1998). Additionally, the authors recognize, sexual abuse, may be under-reported in the participants (Reuben et al., 2016).

One recent longitudinal, quantitative study correlated adverse childhood experiences and the risk for depression and posttraumatic stress disorder among US National Guard soldiers (Rudenstine et al., 2015). A sample of 991 Ohio National Guard soldiers were recruited and participated in structured interviews to assess traumatic event exposures, a history of adverse childhood experience and post deployment depression and PTSD. The ACEs events survey was utilized, and multivariable logistic models were computed. Depression, post deployment new-onset, was found to be significantly related to prior child maltreatment, even in soldiers that did not previously have a history of depression or PTSD (Rudenstine et al., 2015).

The statistical analysis adjusted for ages in groups 17-24, 25-34, 35-44, 45 and older, gender and whether they had seen combat on their most recent tour of duty. Deployments to Afghanistan between the years 2001-2011 and Iraq between years 2003-2011, were classified as non-combat related. This research was supported by a Combat

Mental Health Initiative grant from the defense department. The most reported child maltreatment was emotional abuse at 10%, followed in decreasing order, physical abuse at 9.7% and only 1.2% admitting sexual abuse. Out of the soldiers, who were selected for not previously having depression or PTSD, 13.8% reported at least one form of child abuse and 7.2% reported two or more types of abuse. In this sample 8.8% were female and 70% were between 25-44 years of age. After deployment, 6.6% of the soldiers developed new onset PTSD, during or after their tour and 10.5% developed new onset depression within the same time. Odds ratios were determined for the risk of new onset PTSD in participants having had sexual abuse as a child at 8.5; 95% CI: 1.9-38.9. Any form of child abuse was statistically significantly associated with new onset of depression post deployment, as the adjusted odds ratio was 1.8; 95% CI: 1.0-3.1. No significant association was found with adverse childhood experiences and PTSD post deployment. The researchers point out the reinforced significance on lifetime mental health, from the early trauma of childhood, independent of other adversities later in life. A trauma sensitivity model postulates that a priming for future negative responses to stressors occurs after adverse childhoods. Hence resiliency is diminished physiologically, suggested by hypothesized changes in the hypothalamus-pituitary-axis. One explanation offered by the researchers is that a childhood of abuse lays out vulnerability neurologically that gets activated with the extreme stress of deployment, which in turn, acts as a proposed trigger of a previously suppressed phenotype. Identified limitations are: bias of self -reporting retrospective abuse, as under-reporting is more often found than over reporting, other mental illnesses such as addictions and anxiety were not screened for in this study and perpetrators of abuse were limited to abuse by parents,

again potentiating an under-representation of other issues of abuse in childhood. The participants were also from a specific geographic region which limits the generalizability of the results. This research pointed to the need to attend to the potential susceptibility for incident depression post deployment, in soldiers who had experiences of childhood abuse (Rudenstine et al., 2015).

A study (Kaier, DeMarni Cromer, Davis, & Strunk, 2015) investigated the association between Adverse Childhood Experiences and health within an elite athlete sample to understand the role of allostatic load and the mitigating influence of exercise on deleterious outcomes. The purpose was: to descriptively determine the prevalence of ACE's within a college athlete sample, explore self-reported ACE's and subjective and objective health concerns, and examine the incidence of problematic alcohol or drug use in athletes.

Athletes were recruited utilizing a longitudinal protocol to achieve N = 304 students. Participants were male with N = 173 and females participated with N = 131, all were over 18 years of age on a campus in Eastern Oklahoma. Self- reported race of participants consisted of Caucasian at N = 202, African Americans at N = 59, American Indian with N=3, Latino at N = 12 and other at N = 22. Six declined to answer. On average participants were 20 years of age with a SD = 1.4. Participants were represented from freshman at 30%, sophomores at 20%, juniors at 20%, seniors at 21% and fifth year students at 3% and finally with N= 6 for graduate students (Kaier et al., 2015).

The Adverse Childhood Experiences was administered, as respondents answered yes or no to 10 items assessing past physical abuse, sexual abuse, emotional abuse, neglect and household dysfunction. The total sum was determined with a maximum of

10. These scores were used to create three groups: those with no ACE's, those with only one ACE and those with multiple ACE's. The Cronbach's alpha was an acceptable .67 for this study. The Psychiatric Diagnostic Screening Questionnaire (PDSQ) was utilized to investigate with three subscales: somatization disorders, alcohol and drug abuse (Zimmerman & Mattia, 1999). The somatization scale was comprised of four items with a total score ranging from 0 to 4. The answers were coded yes or 1 or no coded as 0. The drug and alcohol scales were each six items with yes and no answers. Healthcare utilization was queried for medication use, treatment and missed practice and objectively validated through medical record reviews (Kaier et al., 2015).

The prevalence of ACE's demonstrated 30% of participants had at least one ACE and the average had 2.1 with a SD = 1.5. The modal ACE was divorced parents at 22.5%. Of these students 9.9% or N = 29 feared physical abuse and 9.2% or N = 28 had a mentally ill family member or household member who committed suicide. The least reported ACE's were sexual abuse and neglect at 3.3% and 1.1 % respectively. A series of *phi* correlations were conducted to determine the relationship of health variables and ACE reports. Inferential statistics were not run, as few athletes reported drug use with N = 8 or 2.6%. However, athletes reporting multiple ACE's screened positive for alcohol issues ($r = .10$, $p = .10$), more somatization ($r = .2$, $p < .001$) and prescription medication use ($r = .12$, $p = .05$). Logistic regressions were run to obtain odds ratios and determined that the odds of reporting health symptoms were 3.9 times greater for those reporting multiple ACE's. The odds were double for alcohol abuse and prescription medication use if ACE's were multiple in this sample. The conceptual framework of allostatic load was used in this study with the hypothesis that exercise decreased chronic over-activation of

the stress response system. This study reinforced this theory when only one ACE was identified. There was however, health risks for even those elite athletes, as their ACE scores increased (Kaier et al., 2015).

Limitations to the study included: use of only a limited geographical area and a private university, self- assessment of participants was completed in the same room with other teammates, which may have influenced participants veracity, and finally the dichotomous ACE variables have limitations as collapsing variables causes a reduction in variance. Also, peer victimization and rejection and exposure to community violence was not addressed in this study as suggested by some researchers (Finklehor, Turner, Shattuck, & Hamby, 2013).

A study utilizing cross-sectional data from the first wave of the Irish Longitudinal Study on Aging (TILDA), explored whether early adversity increased the risk for disease independent of later life factors of economics, behavioral factors and psychosocial issues (McCrory, Dooley, Layte, & Kenny, 2015). The nationally represented sample included N= 6,912 participants aged 50 and older. The sample was generated by use of selection processes that assured random but representative sampling. The participants were encouraged to recruit their entire household members who were over 50 years of age. A final N = 8,175 participants were recruited. Respondents completed a computer assisted personal interview, as well as a mailed questionnaire. A total of 6, 912 completed the questionnaire addressing sensitive issues about abuse in the childhood home. Undereducated participants were under-represented in the final numbers. Stratification and clustering and inverse weights were constructed to ensure the results were representative of the over 50 population of Ireland (McCrory et al., 2015).

Outcome variables were: disease diagnosis and age of onset, five childhood adversity measures which were dichotomously scored, and socioeconomic adversity in childhood. A composite adversity score was calculated summing up the scores across the events. Covariates were age, gender and marital status, highest educational level achieved and household income. Lifestyle variables of smoking and alcohol consumption using the CAGE (Ewing, 1984) alcohol screening test were used to identify issues with intake. Answers of yes to two questions was indicative of disordered drinking. The sensitivity (93%) and specificity (76%) have been demonstrated and the instrument is used clinically. Physical activity was assessed using an eight- item short form of the International Physical Activity Questionnaire which measured the amount of time spent walking, as opposed to being sedentary (Craig et al., 2003). Adverse events in adulthood assessed for included: losing a spouse or child to death, accident or addiction (Krause, Shaw, & Cairney, 2004).

The descriptive quantitative analysis of the data reflected 33.6% had experienced at least one adverse childhood experience before age 18 with 5.9% having had two adverse events and 1.9% experiencing more than two. Mean age of the sample was 63.9 years with 51.9% female participants. The cohort study design allowed for a relative risk calculation. Confidence intervals were at 95% for the relative risk ratios. STATA 12.0 was used for the analysis and Poisson Regression. Growing up in poverty participants were 18%(RR = 1.18, 95% CI; $p < .001$) more likely to have two diagnosed diseases. If parental substance abuse was reported the risk rose to 24% for two diseases, if physical abuse occurred the risk was 49% and if sexual abuse occurred the risk for comorbidity was 56%. These diseases included cardiovascular, lung disease, asthma, arthritis, ulcers

and psychiatric disorders (RR= 2.63, 95% CI; $p < 0.001$) such that the relationship was graded in impact. Additional epidemiological studies were called for to ascertain the biomarkers implicated in autonomic or immune activation suggested by these findings. Limitations for the recalled retrospective reporting of childhood adversity were acknowledged, as well as the fact that each adversity was afforded equal weight in summing up the data. And finally, the list of childhood adversities was not reflective of the full range of adversities possible. The strengths of a study include: it utilized a nationally representative data set and multi-dimensional measures of adversity were included. Recommendations were for an adoption of a life-course approach to the study of chronic illnesses (McCrory et al., 2015).

Forgiveness

Spiritual healing was addressed in a qualitative study exploring 30 adult male survivors of childhood maltreatment (Willis, De-Santo- Madeya, Ross, Sheehan, Fawcett, 2015). In this study a hermeneutic, phenomenological research approach was undertaken to understand the lived experience of healing after child maltreatment. In a northeastern part of the U.S., 52 men were recruited to participate in interviews with psychiatrically trained nurse researchers. The final sample was 30 men who had experienced childhood trauma. The data analysis was a secondary analysis of a qualitative study resulting in transcripts. The focus was on coding and emerging themes related to spiritual healing. To prepare, the team reviewed the literature around the issue of spirituality without forming a bias of what to expect. Analysis was done line by line requiring several reviews continuing until saturation was reached (Willis et al., 2015).

Five phenomenological themes were interpreted: importance of exploring faith traditions, being in community facilitates healing with others and the transcendent, expanding awareness through prayer, yoga, nature, meditation, music and spiritual literature, loving and letting go to reflect one's spirituality and finally recognizing their common humanity. The authors recognized that the spiritual healing after early trauma is empirically and theoretically under-developed. Each of the themes can be contextualized with Watson's theory of human caring among others. The caritas factors encourage nurses to develop their own spiritual practices, as well as attend to those of their patients (Watson, 2008). The findings implicated spiritual healing as essential after childhood maltreatment in men. The nurse practices from a loving kindness perspective, which is open to even a decision for forgiveness of the abuser(s) as indicated (Willis et al., 2015).

A study (Thompson et al., 2005) undertook establishing the Heartland Forgiveness Scale (HFS) in order to measure dispositional traits of the virtue of forgiveness. The researchers defined forgiveness as moving, after a transgression, from a position of negativity to neutrality or positivity. Three factors were explored: forgiveness of self, other and situations. Psychometric properties were tested in several studies. Study 1 used a pilot version of the instrument and reduction analysis determined the final items that would make up the HFS. Participants N = 499 were recruited from a public Midwestern university and the pilot fulfilled partial credit for a psychology class for the participants. The number of men and women were 44% and 54% respectively. Groups of 20-30 were taken to complete the pilot questions. There were 30 items to assess each of the three components of forgiveness. Half of the items were positively worded, and half were negatively coded, with the word *forgive* nowhere on the instrument. Exploratory

factor analysis was done showing a clear differentiation between forgiveness of self, others and situations (Thompson et al., 2005).

Study 2 (Thompson et al.,2005) was conducted to explore a confirmatory factor analysis after three items from each factor had been selected. These participants were given an 18-item self-report measure. Each participant indicated with a Likert scale, ranging from a low 1 = "Almost Always False for Me" to a high score of 7 = "Almost Always True for Me", their responses to each of the six-item subscales. These groups consisted of 500 students who completed the scale together in an auditorium size class. Descriptive statistics and internal consistencies and correlations were computed on the data. The minimum score ranged from a low of 8 to the maximum of 42 with a Cronbach's alpha of .75 for self, .78 for others and .79 for situations. The total Cronbach's alpha for the instrument was .86 for this study. It has been suggested that forgiveness and un-forgiveness are not just opposites but rather they are different domains and as such, they were found to have correlated yet separate factors. The models were compared by the Akaike Information Criteria (AIC) at 67322 and found to be smaller than a Forgiveness and Un-forgiveness model 67449. This suggested a good fit for the HFS model (Thompson et al., 2005).

Study 3 (Thompson et al., 2005) engaged a population of students and involved the administration of the Heartland Forgiveness Scale (HFS) and four tests with reliability and validity for measures of well-being. The Trait Anger Scale, a 15 item 4 points instrument reflecting tendency toward anger, was utilized (Spielberger, Jacobs, Russell, & Crane, 1983). The State-Trait Anxiety Inventory, a twenty- item evaluation of experiences of anxiety-based symptoms was administered calculated with is 4-point scale

(Spielberger, Gorsuch, & Lushene, 1970). The center for Epidemiologic Studies Depression Scale, a twenty-item measure of symptoms reflective of depression for the preceding week experiences, was used (Radloff, 1977). This instrument has a four- point scale. As well, The Satisfaction with Life Scale, with a Likert scale of 7 points was given with only five statements to be addressed (Diener, Sandvik, Pavot, & Gallagher, 1985). Hierarchical regressions were computed to determine the role of the three subscales of forgiveness as predictors of the four measures of confirmed psychological wellbeing (Thompson et al., 2005).

The Marlow–Crowne Social Desirability Scale was added, to determine if pressure to appear more forgiving was driving the results. The R^2 was not statistically significant, so desire to appear forgiving, when it was not the truth, was not changing the predictive ability of the subscales overall, thus the test was not compromised by social desirability. Self and situational forgiveness significantly predicted depression, anxiety and life satisfaction such that $F(2,249) = 36.45$, $MSE = 69.22$, $p < .001$, $R^2 = .23$; $F(2, 260) = 41.78$, $MSE = 103.46$, $p < .001$, $R^2 = .24$ and $F(2, 267) = 32.84$, $MSE = 31.64$, $p < .001$, $R^2 = .20$ respectively. All point to the predictive nature of high dispositional forgiveness to: low depression, low anger and anxiety and a satisfied life. Forgiveness of self and situations is more strongly related to these indicators of psychological well-being. The authors proposed that forgiveness is a coping process (Thompson et al., 2005).

A qualitative study, undertaken by Thompson (2005), utilized the Heartland Forgiveness Scale (HFS), as a predictor of the content of narratives of participants who had experienced a transgression in their life. Participants, N= 230, at a large Midwestern university received credit in a psychology class for completing three narratives in

addition to the HFS. The first was to write about a time the participants harmed someone. The second narrative was to write about a time when another had hurt them and the last was to think of a circumstance, when an event out of the control of anyone, had caused the harm including accidents and natural disasters that violated their belief about the way things should be. Groups of students, ranging from 5 to 30 at a time, took the questionnaire in a classroom (Thompson et al., 2005).

Raters were trained until they could attain an inter-rater reliability of .95 as they coded the narrative responses. The students had been instructed to speak of how they presently felt, yet participants also included past emotions in the narratives. Coding was adjusted to reflect that time frame. A statement that the event might or must have happened "for a reason" were coded as neutral. Intensity of responses from weak to strong were captured as well. Comments ranged from responses such as being "over it" a weak response of negativity, to feeling cheated or hating to see the person which was rated a strong negative. To increase the reliability of the responses the three narratives were combined. The total HFS was significantly correlated with the percentage of positive or neutrally valenced answers such that $r = .28$, $p < .001$. The magnitude of the difference between the percentage of the past strong negative statements and the present strong negative statements (n= 177, M = 30.82%, SD = 44.44) was correlated significantly with the overall HFS as $r = .19$, $p = .02$. These results indicated that people, capable of more easily forgiving, are not immediately more forgiving, when transgressed upon, but they can eventually decrease their negative responses from the past to the present. Less forgiving people maintained the negative intensity of their initial response over time. The uniqueness of this tool is the inclusion of specific situations in the

assessment of the construct of forgiveness. The HSF has demonstrated convergent validity, internal consistency and test retest reliability. It also revealed consistent factor structure. The findings point to the ability to forgive people, as being capable of reframing transgressions and developing a new narrative over time. This than leads to thoughts, feelings and behaviors void of negativity for the person causing the pain. The findings point to forgiveness alone accounting for a range from 25%- 49% of the variance in measures of well-being: depression $p < .001$, anxiety $p < .001$, anger $p < .001$ and life satisfaction $p < .001$. Key information will be lost, suggests the researchers, if forgiveness is defined only in the capacity to extend it to others. Forgiveness of self and situations is crucial as well (Thompson et al., 2005).

A study in 2015, examined the gender differences in spiritual coping and forgiveness, before and after an alcohol treatment program (Charzynska, 2015). Spiritual coping was operationalized and included: looking for internal peace and harmony, maintaining empathy, experiencing compassion and displaying love, seeking closeness to nature, and having a connection with a Higher Power based on trust. The purpose of this study was to determine if a gender difference existed, in spiritual coping, such that forgiveness and gratitude would be experienced differently between men and women in an alcohol treatment program. The participants were recruited from the program and

N = 343 persons agreed to participate. Of these participants, 98 were female and 245 were male. Only 181 persons completed the program. A final 56 men were chosen and 56 women. The mean age for men was M= 41.89 years and 42.39 for the women. The average years drinking for men was 15.25 and 11.83 for the women. A difference

was found with the women regarding their professional achievement (X^2 (2) = 11.833; p = .003) in this study (Charzynska, 2015).

Two measurements were taken of participants as they agreed to the study, the first occurring during their first week in treatment and the second in the last week. The Spiritual Coping Questionnaire and the Forgiveness Scale and a Gratitude Scale were used. The Spiritual Coping Scale is a 32-item seven scale questionnaire resulting in positive and negative responses for coping. The positive domain was made up of: personal, social, environmental and religious items. The negative responses utilize these four domains as well. The questions were preceded with a question of coping techniques identified from choices made by the participants in the preceding four weeks. The answers were in a Likert- scale ranging from a low of 1 to 5 from "*very inaccurately*" to "*very accurately*". The scale has a Cronbach's alpha of .92 for the positive coping questions and .82 for the negative coping. The construct and criterion validity were confirmed (Charzynska, 2014).

Forgiveness was measured with a Polish version of the forgiveness tool by Toussaint which included three aspects of forgiveness: forgiving self, others and feeling forgiven by God (Toussaint, Williams, Musick, & Everson, 2001). A five- point Likert scale was utilized to capture "*strongly agree*" to "*strongly disagree*" or reversely "*never*" to "*always*". The reliability Cronbach alpha was .75 for the general forgiveness score and .91 for feeling forgiven by God, .65 for self-forgiveness and .74 for the forgiveness of others. A confirmatory analysis was done to determine the construct validity of the tool and relations of forgiveness with spirituality, religious coping and gratitude. The criterion

validity was confirmed and validated, as it correlated well with instruments for assessing mental health (Charzynska, 2015).

The gratitude construct was measured with a Polish version of the six-item Gratitude Questionnaire (McCullough, Emmons, & Tsang, 2002). The reliability of the scale with Cronbach's alpha was .72 for this instrument. Construct validity confirmed the relationship with agreeableness scales and extraversion, spirituality, life satisfaction and forgiveness. The study took place between May and December 2012 at a total of 11 different day treatment centers in Poland. The analysis of results included Student's *t* tests and ANOVA with post hoc tests. A higher level of positive spiritual coping than negative coping was found for both men and women in the study at baseline and post-test (men: t (110) = 8.162; $p < .001$; women: t (110) = 7.265; $p < .001$). Two domains of positive spiritual coping had the highest levels: Social (men with M = 3.96 and women with M = 3.92) and Personal (Men with M = 3.81 and women with M = 3.86). For both men and women, the lowest aspect of the subgroups of forgiveness was in self-forgiveness ($p < .001$). Women had a greater change in a feeling of being forgiven by God when compared to men in a pre-and- post Student's t test (t (110) = -2.031; p = .045). The researchers concluded that the lack of change in self-forgiveness for both genders was an important finding. They suggested this as an important area for further study. Limits include the small sample size which impacted the effect size as it did not exceed .8 for any variables. Another limit was the fact that only two measures were obtained in these samples and the participants were all from one area of the world (Charzynska, 2014).

State forgiveness ability was explored in a qualitative study that sought to address the gap in understanding around state forgiveness and well-being outcomes (Akhtar, Dolan, & Barlow, 2017). In- depth, semi-structured interviews were conducted and analyzed using grounded theory with 11 adults recruited from England and Ireland. The purpose of this study was to explore the effects of practicing state forgiveness, as opposed to trait forgiveness and explore factors influencing the forgiveness and well-being connection previously established. The participants were English speaking and self- identified as affiliated with New Religious, Buddhist, Muslim and atheist groups who were recruited with purposive and snowballing sampling methods through social media. Participants were sought who had utilized forgiveness after an interpersonal hurt. The hurts included: parental neglect, romantic loss, abuse in the workplace. Six participants were from England and three from Ireland. Eight were male and 3 females participated. The mean for age was 36 years ranging from 27-50. Eight were Caucasian, one Black and two were Pakistani. Four had a higher degree, five had some college and two had completed secondary education.

Grounded theory methods were used as thoughts, ideas and meanings were extracted and coded and developed into themes. Themes around unforgiveness arose: negative impact on mental health, as well as retardation of growth psychologically and socially for the participants. Whereas forgiveness was associated with: mental well-being, reduction in negative affect, feeling a sense of purpose and spiritual growth and empowerment. Acceptance of others improved with forgiveness, as well as a sense of compassion and tolerance. Letting go or forgiveness was viewed as a means to take control back of one's life. Whereas a sense of powerlessness was inhibitory to

forgiveness. The researchers concluded that beyond reducing depression and anxiety, forgiveness was a facilitator to wider range of positive outcomes. The limitation of sample size diminished the generalizability despite the diverse investigation with under-studied groups involved with this qualitative work. Variety in socio-economic backgrounds was recommended for future studies (Akhtar et al., 2017).

A quantitative, cross-sectional, correlation study addressing the lifetime stress exposures, forgiveness levels and mental and physical health outcomes of 148 young adults was undertaken to examine the resilience factors and dispositional forgiveness ability relationship (Toussaint, Shields, Dorn, & Slavich, 2016). Participants were 148 adults from a mid-sized liberal arts college in the Midwest. Of these, 99% had started college with-in the preceding four years and had no children, and only 1% was married. The participants were 54% female with a mean age of 19 years, SD = 2.80. Lifetime stress was evaluated with STRAIN which was online and had 96 different types of acute and chronic stress indicators. It is a self-report instrument that provided follow up questions if an affirmative response was obtained such that severity, frequency and timing were ascertained. The count could range from 0 to 96, with a cumulative severity range of 0 - 480. Additionally, twenty subscales could be computed breaking down the timing into early life and adulthood and acute or chronic stress. Also, eleven life domains were assessed: housing, education, work, health, partner status, offspring, financial, crime, death, life-threatening experiences and possessions. And finally, five social-psychological characteristics: interpersonal loss, physical danger, experiences of humiliation, entrapment and role change were assessed. The Validity of the tool has been

demonstrated in research establishing connections to metabolic health, cancer related fatigue and psychological and physical health (Toussaint et al., 2016).

The Heartland Forgiveness Scale (HFS) was used with its 18-item measures of forgiveness included: toward self, others and situations. Likert scale response of 1 "*almost always false for me*" to 7 "*almost always true for me*" resulted in scores from 18 to 125 with higher scores representing more dispositional forgiveness ability. Psychometric work: Confirmatory factor analysis, convergent/divergent validity and test retest and reliability, with an alpha = .90 reflecting internal consistency all provided justification for the use of the instrument (Thompson et al., 2005).

Mental health symptoms were assessed with the Kessler 6 (K6) instrument which measured nonspecific distress (Kessler, Andrews, & Colpe, 2002). Likert response ranged from 1 "never" to 5 "very often" with resultant scores of 6 to 30. The higher scores represent more psychological distress. The K6 had an established internal consistency established that was acceptable and for this study the alpha was = .90 (Toussaint et al., 2016).

The Physical Health Questionnaire (PHQ) a 14-item instrument that assesses somatic complaints was utilized to capture physical health symptoms (Spense, Helmreich, & Pred, 1987). The instrument has 12 questions with a Likert scale of 1 *"not at all"* to 7 *all the time"* and three questions with responses ranging from 0 to seven for number of occurrence times. Internal consistency for this research for this instrument was alpha = .90 (Toussaint et al., 2016).

Analysis included descriptive statistics and bivariate correlations for all the variables. This was followed by hierarchal regression models that evaluated direct and

interactive effects of forgiveness and stress on health. Life stress and forgiveness were entered as direct effects on step one and Life Stress X Forgiveness interaction was entered in Step 2. Slopes analysis followed, and alpha levels were set at $p < .05$. On average participants had lived through 13 major life stressors which they rated moderately stressful. Participants reported overall forgiveness scores that were high with M= 87.56, SD = 15.20. The reported stressors included: demands of college, death of a loved one, loneliness, financial difficulties and relationship demands. In bivariate analysis, the stress indexes were associated with health outcomes. Forgiveness was negatively associated to mental and physical health symptoms with $r = -.48$, $p < .001$ and $r = -.35$, $p < .001$ respectively. Also, greater lifetime stress was negatively associated to forgiveness with $r = -.26$, $p < .001$. Forgiveness significantly moderated the effect of lifetime stress on mental health with $B = -.173$, $p < .05$. Forgiveness did not however moderate the effects of lifetime stress on physical health $B = -0.02$, $p < .05$. The data was consistent with the research showing a coping style involving forgiveness leads to better overall health. Forgiveness was an independent factor in offsetting stress in a graded fashion. The researchers recognized the limitation in their study establishing *how* forgiveness buffers the effects of lifetime stress severity on mental health. Also, the failure to establish the impact of forgiveness on physical health in this study was attributed to the age of the participants, as participants consisted only of healthy young adults. However, forgivingness levels predicted a significant amount of variability in physical health symptoms. A suggestion made by the researchers was made that inflammatory activity may not be impacted on by forgiveness as coping. Limitations of the study are such that directionality and causality cannot be made, and gender

differences were not made as this was a convenience sample. The buffering ability of forgiveness on mental health in particular, has implications for reducing stress-related diseases (Toussaint et al., 2016).

The buffering ability of forgiveness was evaluated in a quantitative study assessing the mediating role of anger and negative affect with PTSD among injured veterans (Karairmak & Guloglu, 2014). The purpose of the study was to examine the mediating role of anger and negative affect on the relationship between forgiveness and PTSD and depression among Turkish veterans. The researchers hypothesized that forgiveness would be negatively associated with PTSD and depression, and anger and negative affect would mediate the relationship between forgiveness and PTSD and depression. A total of 247 veterans who had been injured in terrorist attacks in Turkey between 1984 and 2010 were recruited for the study. A total of 500 questionnaires were mailed to veterans representing all categories of injuries. Random selections were then made from each category to ensure representation was equal from each category of physical injury. First degree was loss of any upper or lower limbs, ranging to the 6th category which represented the loss of a thumb. The age range was 24-49 with a mean of 36.55 (SD 5.29) years. Of the participants 216 were married, 27 were single and 4 divorced or widowed. Of the participants 205 of them were fathers of children. Reportedly, 27% had received psychological services and 34% reported needing it at the time of testing. The veterans were separated into categories according to their injuries based on the severity of organ loss or functionality. The instruments used included:

The Traumatic Stress Symptom Checklist (TSSC), the Heartland Forgiveness Scale (HFS), The State Trait Anger Expression Inventory (STAXI) and the Positive and

Negative Affect Schedule (PANAS) to screen for the results of man- made trauma (Karairmak & Guloglu, 2014).

The TSSC consists of 23 items with the first 17 questions directly assessing for symptoms that are listed in the DSM-IV, and the last six questions related to the present week experiences of the participants. A score of 25 in the first 17 questions is indicative of having PTSD. A score of 38 or more on all 23 items indicated a high likelihood of having depression in addition to PTSD. Sensitivity and specificity to PTSD was at 81%. In this study, Cronbach's alpha was 0.94 for the entire score, 0.93 for the PTSD and 0.82 for the depression subscale (Karairmak & Guloglu, 2014).

The HFS (Thompson et al., 2005) tool was used to assess dispositional forgiveness with three subscales for forgiveness of: self, others and situations. The typical response to a situation is queried at the Likert response range from 1 "almost always false for me" to 7 "almost always true for me". Each domain had a score that could be added for a cumulative score. The internal consistency was .81 overall, .64 for self, .79 for others and .76 for situation. In this study, the Cronbach's alpha was .76 (Karairmak & Guloglu, 2014).

The STAXI is a 44-item instrument developed by integrating the State -Trait Anger and Anger Expression Scales. Five subscales included: State Anger, Trait Anger, Anger-In, Anger-Out and Anger Control. The Turkish version had an internal consistency ranging from .67- .82. Internal consistency for this study was .87 (Karairmak & Guloglu, 2014).

The PANAS instrument is a 20-item scale used to assess how often individuals experience both positive and negative emotions during the past month ranging from 1=

never to 5 = *always.* Negative affect included: anger, disgust, fear, and nervousness. Scores range from 10 to 50. Internal consistency in the Turkish version was .83 and .86 for positive and negative scales. Cronbach's alpha was .82 (Karairmak & Guloglu, 2014).

Before testing the hypothesized models, descriptive statistics were calculated. Path analysis was conducted to determine the mediational model. A model was considered to have a good fit if all path coefficients were significant at the 0.05 level, chi-square was insignificant and the ratio between that number and the degrees of freedom was smaller than two. There were five variables in the study and as such p variables has $p(p+1)/2$ free parameters to be estimated and so the ratio of five participants per parameter (15 x 5= 75) was a sufficient sample size. A mediational analysis was conducted with forgiveness, as the predictor variable and PTSD and Depression, as the dependent variables. There was a statistically significant effect of forgiveness on PTSD with B = 0.26; SE=0.06; $p < 0.001$, as well, there were significant effects of forgiveness on anger B = -0.15; SE =0.03; $p < .001$ and forgiveness on negative affect, as well B= -016; SE = 0.03; $p < 0.001$. The Sobel test (Sobel, 1982) was used to determine if the reduction in the relationships between forgiveness and PTSD and depression were significant. The results were that the reductions were significant when anger and negative affect were controlled. The Z scores were found to be < 0.05, which suggested that the direct effect of forgiveness on PTSD and depression was mediated by anger and negative affect. To test for reverse causal effect the mediator variables and dependent variables were displaced reciprocally, and the relationship remained significant. Veterans who report higher levels of forgiveness reported fewer negative symptoms. The limitations of the study according to the researchers, is the fact that data was assessed two years after the

participants had been in combat. Also, since this study only assessed injured veterans, the participants missed were those who had vicariously been emotionally injured, as they bore witness to the death of a friend but were not themselves injured. Suggestions included calls for future studies to focus on how the construct of forgiveness, anger and negative affect and PTSD relate in other groups that have experienced trauma such as those experiencing natural disasters, rape and abuse (Karairmak & Guloglu, 2014).

A qualitative study (Schroder, La Cour, Stener Jorgensen, & Lamont, 2017), explored self-forgiveness in health providers after patients experienced negative outcomes during childbirth. A mixed method design was used to generate the data, as a national questionnaire survey was followed up with a qualitative interview study. The survey was distributed to all obstetricians and midwives in Denmark N= 2098 and 1535 midwives. The response was 1237 of whom 1027 or 85% identified having witnessed a traumatic childbirth experience. This was defined as an event resulting in permanent, severe or fatal injuries related to labor and delivery. From this sample 14 respondents were approached to participant in the qualitative interviews. Six were obstetricians and eight were midwives. Purposive sampling was done while ensuring an equal representation of both MDs and midwives. The screening question for this study was "The traumatic event has made me think more about the meaning of life" as the researchers assumed that the existential thought behind agreeing to this statement would make for richer content in interview discussions. A social constructivist approach was relied on in all narratives; such that contributions in the dialogue, of both the researcher and the participant, were important. The traumatic experience itself, as perceived by the provider, rather than the clinical facts were relied on to decrease the participants sense of

being judged by a peer. The theoretical, philosophical framework for the study was the work of Gamlund's alternate view in which forgiveness is sought regardless of lack of wrong doing on the part of the provider of care (Gamlund, 2011).

The cases described practitioners' guilt without fault, whereby the scenarios provided by the professionals revealed clinically appropriate actions had been taken, however, the results were deleterious outcomes for the patients. The health providers were viewed as secondary victims, as they witnessed the loss and suffering of their patients. Themes emerged around the issues of responsibility and accountability of providers in healthcare. Pseudo self -forgiveness was identified, whereby the wrong doer dissociated themselves by down- playing or excusing their actions, thereby avoiding responsibility. Gamlund suggests that an agent needs to address the wrong doing to the victim to validate that self- forgiveness is morally permissible (Gamlund, 2014). The researchers concluded that midwives and obstetricians experience guilt, without being at fault after traumatic childbirth, and that acknowledging this struggle is the first step to achieving genuine self -forgiveness. Developing a support system for secondary victims or heath providers, who were justified in decision making but unfortunately still had negative outcomes as the result, requires a moral philosophical perspective in healthcare and education that does not presently exist. Due to the fallible nature of medicine and the need for self- forgiveness that ensues, these issues require research attention. This is not occurring in the blame-free approach that is currently promoted in the aftermath of adverse events. Failing to acknowledge guilt in a medico-legal defensiveness may prevent self-forgiveness by the provider (Schroder et al., 2017).

A quantitative, correlational design study was conducted by Rensburg & Raubenheimer, (2015) to investigate the mediating relationship link between bullying, victimization, psychopathology and adolescent forgiveness. Bullying had been differentiated by three categories which were found to not be mutually exclusive and are capable of producing deleterious effects for the victim as well as the bully: direct acts involving physical aggression, verbal aggression and social or cyber bullying (Monks & Coyne, 2011; Rivers, Chesney, & Coyne, 2011). Forgiveness, for this study was defined as a positive psychological concept evidenced by the: the decrease in vengeful feelings, thoughts and behaviors, and a choice of viewing the offender with compassion and love while not diminishing the judgement of the violation (Enright, Freedman, & Rique, 1998).

Questionnaires with Likert scales were utilized to gain the data for this study. They included: The School Relationship Questionnaire (SRQ) (Wolke, Woods, Stanford, & Schulz, 2001), The Youth Self Report Scale(YSR) (Achenbach & Rescorla, 2001), The Forgiveness Questionnaire(FQ) (Mullet et al., 2003) and The Forgiveness of Self and Others Scale(FSFO) (Mauger et al., 1992). Missing data was tested for randomness and wherever possible missing data was inputted. Subscales were tested for reliability with Cronbach's alpha and for construct validity. LISTREL was used to investigate the relationships between the variables as structural equations models were utilized to establish correlations (Rensburg & Raubenheimer, 2015).

The School Relationship Questionnaire (SRQ) (Wolke et al., 2001) measured four subsets: Direct Aggression Received, Verbal and Relational Aggression Received, Direct Aggression Given and Verbal and Relational Aggression Given. The scores ranged from

"0" for *no occurrence* to 3 for "*very often*". Participants scoring *often* or *very often* were scored as a direct or relational bully or victim. Subscale totals were utilized in the computations and analysis (Rensburg & Raubenheimer, 2015).

The Youth Self Report scale (Achenbach and Rescorla 2001) has been established as a valid and reliable measure of the mental health of adolescents aged 11-18 years of age. The scales differentiated *internalizing* or withdrawn, depressed somatic responses to a stimulus and *externalizing* or delinquent or aggressive behavior (Rensburg & Raubenheimer, 2015).

The Forgiveness Questionnaire is a self- report of one's general willingness to forgive under various circumstances. Responses were chosen from a seven-point Likert scale with "disagree completely" and "completely agree" at opposite points on the scale. Three subscales were chosen from four available these included: resentment, forgiveness and revenge. The fourth was dropped due to issues with reliability (Rensburg & Raubenheimer, 2015). The Forgiveness of Self and Others Scale (Mauger et al. 1992) required participants to answer true or false on their anticipated responses to described behaviors. The tool has internal reliability and test retest reliability established. The items were originally designed for adults, so items were modified for the proposed adolescent sample and the results were piloted as part of this study (Rensburg & Raubenheimer, 2015).

Two British, secondary school students participated in 2007 with some final N = 541 students who received parental consent. Data could not be used if missing data could not be inputted, resulting in a final sample of N= 355. Ages ranged from 14-16 years of age with M= 14.9 years. The sample was 97.5% Caucasian with 55% identifying as

Christian, 28.2% as atheist, 7.9% not responding and 8.2% spread over various other unidentified groupings. The structural equations models were tested with LISTREL computer program (Joreskog, 2005; Joreskog & Sorbom, 2003).

Prevalence of bullying within the sample was 6.8% for direct, 16.3% for relational bully and 33.8% for relational victim. Both raw scores and normalized scores were utilized in calculations. Girls were found to score consistently higher in the dimensions of internalizing and externalizing. Model 7 in the study showed a full mediation effect, as all the loops were closed with the best fit statistically RMSEA = 0.076. The t test results were statistically significant, as were the z-tests ($z = 3.96$ for bullying > forgiving others > externalizing; $z = -5.95$ for victim > forgiving self > internalizing). These confirmed the mediation effects. Victims of bullying tended to blame themselves. For those that could forgive themselves, the negative mental health consequences of being a victim were diminished. The researchers concluded that forgiveness can be a valuable component in prevention and interventional approaches to anti-bullying programs. They suggested that forgiveness can mitigate the impact of bullying on the outcome of psychopathology. Limitations acknowledged were: data self-report therefore recall bias affected, data from one geographical area which was predominately rural, as well cross-sectional design prevents conclusions of causality (Rensburg & Raubenheimer, 2015).

Summary

Chapter II provided an overview of the empirical findings from qualitative and quantitative studies addressing the constructs of: Compassion Satisfaction, Adverse Childhood Experiences and Forgiveness over the past 10-15 years. Compassion

Satisfaction was differentiated from Compassion Fatigue and Burnout, as all three are potential sequelae of working professionally with clients who are experiencing suffering. Adverse Childhood Experiences, despite the retrospective memory required, were investigated in research studies aiming to quantify the present toll of having previously experienced various classifications of trauma prior to age 18. The construct of forgiveness was assessed differentiating the application of the construct toward self, others and situations.

CHAPTER III

METHODOLOGY

This chapter provides a description of the methods and procedures used to examine the relationships between the study variables: Adverse Childhood Experiences, forgiveness and compassion satisfaction among a select group of nurses. In addition, the methods described for the study, addressed which demographic characteristics serve as predictors of Forgiveness and Compassion Satisfaction. Moreover, the impact of Adverse Childhood Experiences on the ability to experience forgiveness and compassion satisfaction were explored. The purpose of this study was to 1) examine the relationship between Adverse Childhood Experiences, forgiveness and compassion satisfaction in nurses, in addition, 2) the study sought to determine the impact of forgiveness, as a moderator on the relationship of Adverse Childhood Experiences and compassion satisfaction*;* and lastly, this study explored which demographic characteristics served as predictors of forgiveness and compassion satisfaction. The theoretical basis for the study was built on the work of Jean Watson and the theory of Caring. This chapter addresses the research questions, research design, sample, setting, inclusion criteria, protection of human rights, research instruments used to establish quantitative data, the data collection procedures and data analysis.

Research Questions

The research questions addressed by this study were:

Research Question 1

Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, compassion satisfaction, and forgiveness in a select population of nurses?

Research Question 2

Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) are significant predictors of forgiveness and compassion satisfaction in a select population of nurses?

Research Question 3

Is there a relationship between past Adverse Childhood Experiences and nurses' present trait forgiveness and compassion satisfaction among a select population of nurses?

Research Question 4

Does the present trait of forgiveness moderate the impact of past Adverse Childhood Experiences on a select population of nurses' capacity for experiencing compassion satisfaction? If so, to what extent does forgiveness ability moderate the impact of ACEs on compassion satisfaction?

Research Question 5

What is the relationship of forgiveness to compassion satisfaction when controlling for ACEs among a select population of nurses?

Research Question 6

Is there a relationship between past ACEs and preferred choice of employment specialty among a select population of nurses?

Research Design

This study was a descriptive, correlational research design which examined the relationship between ACEs, forgiveness and compassion satisfaction among a select sample of nurses. A correlational design is appropriate to use when data is collected at a single point in time on selected variables (Burns & Grove 2009). Data was used to describe, explain and correlate how the independent variables of ACE'S, forgiveness and demographic variables impact the dependent variable of compassion satisfaction. A correlational design allows the researcher to predict relationships among variables (Burns & Grove, 2009). To establish the extent of the influence of the independent and dependent variables, bivariate correlations for all variables was conducted followed by analysis by hierarchical regression analysis. To control for extraneous variables demographic data was evaluated.

Independent Variables

The independent variables were *adverse childhood experiences* and *forgiveness.*

Dependent Variable

The dependent variable was *compassion satisfaction.*

Sample

The target population for this study was a purposive, convenience sample of nurses. To diminish selection bias, 1) family nurse practitioner students who were enrolled in clinical courses in their graduate program of studies and 2) nurses who were members of a southern state nurses' organization were recruited. Snowballing methods were also used to recruit additional nurses who met eligibility criteria. Utilizing the Newton and Rudenstam (2013) formula whereby k = the number of variables to test in the multiple correlations formula, the N required is greater than or equal to 50 + 8(k). Thus, the 10 variables in the ACE scores plus the Forgiveness score = 11. The 50 + 8(11) = 138. To decrease risk for a Type II error, participants were recruited until at least 138 participants had participated.

Inclusion Criteria

Participants recruited met the self-reported eligibility criteria for participation in the study. Inclusion criteria was as follows: 1) RNs enrolled in a graduate program in nursing or 2) RN members of a state nurse's association and 3) had the ability to read, speak, understand and write the English language in order to respond to surveys via a computer linked survey; 4) worked over 6 months in the profession.

Exclusion Criteria

The following exclusion criteria were used in this study1) unable to read and respond in English; 2) unable to anonymously respond via a computer soft-ware link; and 3) only recently graduated or worked less than 6 months as a registered nurse.

Setting

The first setting for this research study was a historically black college and university located in the southern part of the United States. The university offers undergraduate and graduate degrees in an urban setting. The students were recruited during their on- campus class time in a classroom for graduate programs. The non-student RN participants were recruited from a rurally located state nurses' association chapter list of members for 2017-18. The membership in this nursing association does not require an advanced degree in nursing. Membership ranged from 80-100 nurses all of whom will be accessible through their email on file and made available for the study by the chapter president.

Protection of Human Subjects

Prior to data collection, approval was obtained from the Institutional Review Boards (IRB) for the Protection of Human Subjects from the University (Appendix A). After IRB approval, the researcher requested permission from the NP Program Director to recruit student participation (Appendix B). Participants were invited to participate on a voluntary basis, without penalty should they have chosen not to participate. A consent form explaining the purpose and significance of the study, benefits, and risks for participating in the study was provided to the potential participants (Appendix C). Participants were requested to voluntarily answer questions in the survey, recognizing that they would not be penalized if they withdraw at any point or decided to not participate at all.

A heading of "Waiver of Written Consent" was added to the consent form with the following explanation: "To remain anonymous, my completion of the tools and

demographic information designed by the researcher is evidence of my consensual agreement to participate in this research study". Thus, participation in and completion of the survey tools, also served as a participant's informed consent. Protection of anonymity was ensured, as no personal identifying data was collected at the time of participation. All data was reported and analyzed, as aggregate data from the setting from which it was collected. A link to the study's instruments was accessible via a software company called *Qualtrics.* Qualtrics is a privately-owned experience management company that has been instrumental in streamlining data for research studies nationally and internationally. The data was documented as raw data only. The data was stored in a pass-word protected program that only the researcher had the ability to access.

Contributions to the knowledge base of Nursing Science was offered as a benefit to participating in the study. A list of resources for counseling in the geographical location was made available to participants who expressed desire for counseling services (Appendix D). A three- week period was made available for the completion of the questionnaires.

Instruments

There were four instruments utilized to conduct the proposed study: The Adverse Childhood Experiences Survey (Felitti et al., 1998), the Heartland Forgiveness Scale (Thompson & Snyder, 2003) and the Professional Quality of Life Scale (ProQOL) Version 5 (Stamm, 2012) and a demographic tool developed for this study.

Professional Quality of Life (ProQOL)

The latest update of the ProQOL measure was March 12, 2012, as a self -score measure was posted (Stamm, 2012). The ProQOL tool is a commonly used tool for

measuring the positive and negative outcomes in the provider of care due to their exposure to the suffering of others. The measure was first used in 1995 and revisions have occurred until the most recent Version 5 (Appendix E). The tool originally was used to evaluate Compassion Satisfaction, Burnout and Compassion fatigue as well as Secondary Trauma. The Version 5 is built on and amended from the Compassion Fatigue Self- Test (Figley, 1995). The test has been shortened to 30 items and each subscale has 10 items. The three subscales include: Compassion Satisfaction, Burnout and Compassion Fatigue. The three subscales do not add to a composite score. The subscale of compassion satisfaction only was utilized in this study.

Studies have shown the ProQOL (Stamm, 2012) test, for measuring compassion fatigue and satisfaction, to be stable and reliable (McCullough, Rachal, Sandage, Worthington, & Brown, 1998). The Cronbach alpha for each of the subscales for the ProQOL had previously been established as compassion satisfaction = 0.87, compassion fatigue = 0.80, and burn out = 0.72. Construct validity had been established as well and had impacted the use of this tool in multiple nursing quantitative studies (Stamm, 2010). Higher scores represent satisfaction in the caregiver role and a sense of effectiveness in the role.

Compassion satisfaction is the pleasure experienced from doing the required helping roles of a provider of care. Higher scores represent satisfaction from the role of effective caregiver. Multiple translations are available. Quantitative decisions as to the items utilized included: Cronbach's alpha, item to scale analysis, and factor analysis. The Test re-test data showed reliability across the subscales. Convergent and discriminant

validity indicated the subscales measured different constructs. The scoring required reversing items 1, 4, 15, 17 and 29.

Results for the compassion satisfaction subscale showed an average score of 37 with a SD of 7. With this 25% will score higher than 42 and below 33. Compassion satisfaction has been suggested by the author to be a moderator or mediator of compassion fatigue (Stamm, 2012). Permission was granted by the researcher for use of only one scale in this study (Appendix F).

Heartland Forgiveness Scale(HFS)

The tool for assessing the trait of forgiveness in this study was the Heartland Forgiveness Scale (Thompson & Snyder, 2003) and permission was granted by the researcher for use of the tool in this study (Appendix G). This tool (Appendix H) is to date, the most comprehensive measure of the disposition to grant forgiveness. It is the only tool that differentiates the forgiveness disposition into ability to forgive self, others and situations. The internal consistency has been established as the Cronbach Alphas range from .84 - .87, for the entire scale and the subscales ranged from .71 - .83. The test retest reliability was .83 and the subscales ranged from .72 to .83. Construct validity was established. The HFS was positively correlated ($p < .055$) with three other measures of the same construct of dispositional forgiveness (Thompson & Snyder, 2003, p. 308). The HFS was negatively correlated with the Hostile Automatic Thoughts Scale, the Rumination Scale, and the Beck Depression Inventory (Thompson & Snyder, 2003, p.309). Studies have indicated the efficacy of this tool for assessing a general tendency to grant forgiveness to oneself, others and toward situations. To calculate the total score required reverse scoring items: 2, 4, 6, 7, 9, 11, 13, 15, 17. At that point the subscales

could be summed. The 18- question tool has a "Self" subscale for items 1-6, "Other" subscale for items 7-12, and "Situation" subscale items 13-18.

The HFS allows a comprehensive measure of this dispositional tendency to grant forgiveness to self and others and is intra-personal (Thompson & Snyder, 2003). A score of 18-54 indicates that one is usually unforgiving of self, others and situations. A score of 55-89 indicates that one is just as likely to forgive as not forgive self, others and situations; a score of 90-126 one is usually forgiving of self, others and situations.

Adverse Childhood Experiences (ACE's)

The tool for assessing childhood experiences of exposure to neglect, abuse and family dysfunction was the tool established for the ACE Study or Adverse Childhood Experiences, out of the joint research at Kaiser Permanente and the CDC (Dong et al., 2004). Construct validity was established in the tool, as it correlated with well-established scales for childhood adversity (Felitti et al., 1998). For each category, a positive response to the question scores a point, a negative response is noted as zero. Kappa coefficients for each category were as follows: emotional abuse 0.66; physical abuse 0.55; and sexual abuse 0.69. Kappa coefficients for household dysfunction were: domestic abuse 0.77; substance abuse 0.75; mental illness 0.51; incarcerated family member 0.46; and parents separating or divorcing 0.86. (Dube, Williamson, Thompson, Felitti, & Anda, 2004) The reliability of the ACE study was determined with a kappa statistic as the answers are dichotomous.

All questions in the survey asked for consideration of abuse that had occurred prior to the participants' eighteenth birthday. Categories of childhood abuse were differentiated: emotional abuse, physical abuse, and sexual abuse, physical neglect and

emotional neglect and family dysfunction. Household dysfunction included: exposure to substance abuse, mental illness, violent treatment of mom or stepmom and criminal behavior in the home. The total sum was the total number of exposures, each counting as one for present, or zero for never occurring. Ten risk factors were screened for, as they represent the leading contributors to morbidity and mortality (Felitti et al., 1998).

For the purpose of this study, Adverse Childhood Experiences (Appendix I) included any of the following ten experiences prior to the 18th birthday:1) being insulted or put down or treated in any way that lead to fear of being physically hurt, 2) being pushed or slapped hard enough to leave marks, 3) being touched by a person five years older in a sexual way including but not limited to oral, anal and vaginal intercourse, 4) felt unloved or not close to others in the family sufficiently long enough to believe family did not look out for each other, 5) denied clean clothing or enough food or medical attention when required due to parents being impaired,6) having resided in home where parents ever separated or divorced,7) ever witnessed a mother or stepmom being pushed, slapped, or hit with a hand or object or weapon, 8) ever lived with anyone who was a problem drinker or drug abuser, 9) lived with a household member with mental illness including depression or suicidality, 10) had a household member mandated to prison. The prior ten questions are directly from the Adverse Childhood Experiences Survey (Felitti et al., 1998). The scores could therefore range from no or zero points to yes or one point with a total maximum of ten. The total of 0-1 items will be categorized as low, 2-3 as moderate and 4-5 and above as large number of stressors. Scores corresponding to different types of abuse, family dysfunction, neglect and sexual abuse will be computed from the scale.

Demographic Questionnaire

The researcher, after reviewing the literature, ascertained the importance of demographic variables on the constructs of interest and developed a tool (Appendix J). The questions included demographic variables: age, gender, race/ethnicity, marital status, educational status, number of years working as an RN, and choice of employment specialty.

Data Collection Procedure for Nurses in Student Role

The following steps were conducted in data collection:

1. All necessary approvals and permissions were obtained from the University's Institutional review board prior to approaching participants.
2. Approval was obtained from the NP Program Director for students in the following clinical courses which were approached for participation: Nurse Practitioner Practicum I and Nurse Practitioner Practicum II.
3. At the beginning of the Spring 2018 semester the researcher met with the NP Program Director to ascertain the time and place for recruitment with the graduate students.
4. The researcher explained the course purpose to the prospective students on a day agreed upon by the Family Nurse Practitioner Program faculty and met face to face with the students to ensure all questions were answered.
5. Students were invited to participate in this research study. They were informed that their participation was voluntary and that they would not be penalized for not participating nor would they be compensated for their time. All student participants were reassured of anonymity. The online process and

complete confidentiality were guaranteed with the de-identifying of information. For those students recruited, their decision to participate or not, did not impact their course grade or standing in the school.

6. Participants were screened for inclusion criteria prior to receiving an invitation to participate in the study. Estimated time for completion of the total 38 questions was predicted to range from 10 to 20 minutes with an additional 3 to 5 minutes for demographic information collection. The order of the tools administration was maintained consistent with the ACE 10 question score evaluated first, followed by the Forgiveness tool and then The Professional Quality of Life Tool and demographics.
7. When accessing the secure website for the electronic survey the participants were required to acknowledge having read and agreed, that their voluntary completion of the three tools and demographics information served as evidence of their consent to participate in a research study.
8. Qualtrics Surveys soft- ware was designed to humanize the process of surveying. Students were approached in a class room setting and if they agreed to participate, they were provided with an email link to access the survey via Qualtrics. Qualtrics soft-ware tracked the progress of the participants and had a built- in protection against fraud or abuse of the survey.

Data Collection Plan for Nurses in an Organization (Non-Student Participants)

The following steps were undertaken with non-student participants:

1. All necessary approvals and permissions were obtained from the University's Institutional review board prior to approaching participants.

2. The president of the local chapter of the nursing organization was approached in person, while accompanied by the chapter board to request permission to contact members. Registered nurses were invited to participate in this research study in the spring of 2018. They were informed that their participation was voluntary and that they would not be penalized for not participating nor would they be compensated for their time. All participants were reassured of anonymity. The online process and complete confidentiality were guaranteed with the de-identifying of the information. Their decision to participate or not, did not impact the nurses' status in the organization.
3. The RN members received an email explaining the consent for research. Completion of the demographic information determined eligibility criteria.
4. Snowballing or recruitment via direct referral was initiated to expand the sample size of participates in order to reach the sample size for the statistically appropriate power.

Data Analysis Plan

Data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 25 to determine descriptive, summary statistics and correlations and moderating effects on the dependent variable of compassion satisfaction. Moderation analysis is used to address when and under what circumstances an effect exists (Hayes & Rockwood, 2016). In a moderator model study, *forgiveness* acts as W or moderator / mitigatory on the dependent variable of *compassion satisfaction*. The role of buffering is established by the impact of W or *forgiveness*. Interaction or moderation hypothesis can therefore be tested with regression analysis.

The effect of X, or Adverse Childhood Experiences (ACE'S), on Y or compassion satisfaction, in a moderation model can be determined by a regression analysis. The moderator of forgiveness was explored to see if the relationship was different than zero. If the outcome of the data supported the moderator role of the trait forgiveness, as a mitigating factor, childhood adversity influences on compassion satisfaction could be considered as buffered by forgiveness. In moderation analysis, bootstrapping or repeat resampling of the original data with replacement is utilized to establish a confidence interval. The sampling above 10,000 has not been found to improve statistical significance. The term in this approach is percentile bootstrap confidence interval (Hayes, 2013).

Linear regression was used to conduct a simple analysis of three variables such that the X->W->Y causal system was quantified. The model is recursive as the causal flow is unidirectional. The moderating influence of the construct of *forgiveness* on *compassion satisfaction* was analyzed. In the causal steps for moderation the question for this research approach was: Does forgiveness act as a moderating factor on nurses' ability to experience compassion satisfaction after adverse childhood experiences? In moderation, a third variable or W is said to moderate, if it facilitates or inhibits the effect of X on Y. This can be stated as X and W interact on their influence on the outcome of Y. The model will contain an interaction term. This will allow X's effect on Y to be assessed as a linear function. Thus the "conditional effect of X" can be defined by b1 + b3W. The focal predictor would be W or *forgiveness*. If b3 is different from zero we have moderation, thus rejecting the null hypothesis that the regression coefficient is equal to zero or that there is no moderation of compassion satisfaction by forgiveness (Hayes,

2017). Table 1 represents the data analysis plan and statistical tests that were used to answer the research questions.

Table 1

Data Analysis Plan

Research Question	Variables	Statistics
Q1. Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, Compassion Satisfaction, and Forgiveness among a select group of nurses?	Demographic characteristics ACE scores, Compassion Satisfaction scores and Forgiveness scores	Descriptive (means, frequency, percentages) Student t tests One-way ANOVA Bivariate analysis
Q2. Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years of working as an RN, and choice of employment specialty) are significant predictors of Forgiveness and Compassion Satisfaction in a select group of nurses?	Demographic variables, Forgiveness and Compassion Satisfaction	Multiple Regression Analysis Pearson's Product Moment Bivariate analysis
Q3 Is there a relationship between past adverse childhood experiences on nurses' present trait forgiveness total score and compassion satisfaction among a select group of nurses?	ACEs, Forgiveness and Compassion Satisfaction	Multiple Linear Regression Pearson's Product Moment

Q4. Does the present trait of Forgiveness moderate the effects of past Adverse Childhood Experiences on nurses' capacity for experiencing Compassion Satisfaction? If so, to what extent does Forgiveness ability predict Compassion Satisfaction among a select group of nurses?	ACE scores, Forgiveness Score and Compassion Satisfaction Score	Regression Analysis
Q5. What is relationship of Forgiveness to Compassion Satisfaction controlling for ACES in a select group of nurses?	ACE Scores, Forgiveness and Compassion Satisfaction Scores	Pearson Product Moment
Q6. Is there a relationship with past adverse childhood experiences and nurses' preferred work specialty among a select group of nurses?	Ace scores individually and as category total of 0-1, 2-3, 4 and more/ preferred work environment (Demographic data)	Descriptive/correlational Pearson Product Moment Bivariate Analysis

Summary

Nurses are on the front line daily in caring for victims of trauma and loss. They bring a life history of their own experiences to the daily work they take on, in their role of healer. *Compassion satisfaction* and or fatigue are the end results of facing this vicarious trauma. The purpose of this study is to ascertain the moderating influences that support *compassion satisfaction* to ensure wholeness for the nurse and quality of care for those served. This chapter presented the research design, sampling plan, human subject rights requirements, intended instruments and data analysis plan for evaluating the role of the nurse's *forgiveness* ability on the outcome of work derived *compassion satisfaction* despite earlier experienced childhood traumas. Several methods of analysis were utilized

and included inferential statistical analysis, with use of multiple linear regression analysis and a moderation analysis using PROCESS (Hayes, 2013).

CHAPTER IV

RESULTS AND FINDINGS

The purpose of this descriptive, correlational research study was to 1) examine the relationship between adverse childhood experiences, forgiveness and compassion satisfaction in nurses; 2) determine the impact of forgiveness as a moderator on the relationship of adverse childhood experiences and compassion satisfaction; and 3) explore which demographic characteristics served as predictors of *forgiveness* and *compassion satisfaction*. Six questions were formulated and answered. This chapter presents a discussion of the results of the data obtained.

The following is a discussion of each research question answered, statistical procedures used to conduct the analysis, and descriptive and inferential findings. Descriptive statistics were utilized to compute and report the demographic characteristics. Contingency tables were used to present information on the relationships of the variables utilizing bivariate statistics appropriate for parametric and non-parametric data. Inferential statistics were used to report the results of the regression analysis and correlation coefficients. A significance level of $p < .05$ or less was used to determine the statistical significance for the research questions undertaken.

Description of Study Participants

The population of interest in this study was registered nurses (N = 255), with at least six months of experience as a nurse. Participants were recruited from a university setting and professional nursing organizations. Descriptive statistics, including frequency

distributions, percentages, means and standard deviations, were used to summarize the demographic characteristics of the 255 participants in this study. The gender of the participants was identified as 91% (n = 232) female and 9% male (n = 23). Three participants declined providing their age, the remaining participants ranged from 22 to 70 years of age with a mean age of 43.05 (SD = 13.09). The ethnicity of the participants was self- identified as 72.9% (n = 186) Caucasian, 21.6% (n = 55) African American, 2.4% (n = 6) Hispanic, 3.2% (n = 8) other. Gender was further evaluated by race which indicated that 70% (n = 16) of the males were Caucasian, .04%, (n = 1) was African American and .04%, (n = 1) was Asian. One male identified as Latino and one declared as "other" for his race. Marital Status revealed 62.4% (n = 159) were married at the time of the survey followed by 22.7% (n = 58) as single, divorced at 12.5% (n = 32), and widowed at 1.2% (n = 3). The majority of the participants 90% (n = 229) had a BSN or higher. The years participants had worked as a nurse ranged from 1 to 50 years with a mean of 16.9 years (SD = 12.7). The clinical specialty areas that the participants worked in varied, however the top three specialty areas that the participants reported working in were: Neonatal 17% (n = 44), Emergency Department 13.4% (n = 34) and Med-Surgical 11.8% (n = 30) respectively. Tables 2 and 3 further illustrate demographic data.

Table 2

Description of Demographic Characteristics (N=255)

Demographic Variables	*n*	%
Gender		
Female	232	91.0
Male	23	9.0
Marital Status		
Single	58	22.7
Married	159	62.4
Divorced	32	12.5
Widow/Other	5	2.0
Race		
African American	55	21.6
Caucasian	186	72.9
Hispanic	6	2.4
Asian	3	1.2
Other	5	2.0
Education Level		
Diploma	5	2.0
Associate	15	5.9
BSN	125	49.0
Masters (Nursing)	77	30.2
Masters (other)	10	3.9
Doctorate (Nursing)	21	8.2
Doctorate (other)	2	0.8

Table 3

Clinical Specialty Settings for Majority of Work Hours (N= 255)

Clinical Specialties	*n*	%
Neonatal	44	17.3
Pediatric	16	6.3
Maternal Child	2	0.8
Mental Health	22	8.6
Forensics	11	4.3
Med-Surgical	30	11.8
Geriatrics	5	2.0
ICU	23	9.1
OR/PACU	8	3.1
ED	34	13.4
Adult /Family	29	11.4
Home Health	1	0.4
Other	29	11.4
Missing	1	0.4

Reliability of Instruments and Participant's Mean Score of each Instrument

In addition to the demographic questionnaire designed by the researcher, the Adverse Childhood Experiences Survey, the Heartland Forgiveness Tool, and the ProQOL Version 5 Compassion Satisfaction Subscale were the instruments used in this

research study. The reliability of each instrument was computed using Cronbach's alpha and is presented below.

Adverse Childhood Experiences Survey

The results from the Adverse Childhood Experiences (ACE) tool provided information from participants (N = 255) on historical events in their life prior to the age of 18. The Kuder-Richardson Formula 20 (KR-20) reliability is 0.75 for the ACE scores in this study, demonstrating good internal consistency. The scale is dichotomous with yes or no responses to questions of abuse, neglect and family dysfunction in the participants' home of origin. All participants completed this survey. Possible score ranges for this survey were from 0 to 10. The score ranges for participants in this study were from 0 to 9 with a mean score of 2.14 (SD = 2.21), which indicated a count of the different types of adverse childhood experiences participants personally experienced before the age of 18. The top three adverse childhood experiences were: divorced or separated parents n = 97 (38%), verbal abuse n = 74 (29%) and addiction in the home, n = 74 (29%), respectively. Table 4 displays the affirmative responses (those participants that responded "yes") to experiencing an adverse childhood experience.

Table 4

Adverse Childhood Experiences ACEs (N = 255)

Type of Abuse	"Yes" n (%)
1. Verbal Abuse	74 (29.0)
2. Physical Abuse	61 (23.9)
3. Sexual Abuse	61 (23.9)
4. Feel Not Loved	48 (18.8)
5. Neglected	19 (7.5)
6. Divorced or Separated Parents	97 (38.0)
7. Witness to Domestic Violence	24 (9.4)
8. Addictions in Home	74 (29.0)
9. Mental Illness of Family Member/ Suicide Attempt	62 (24.3)
10. Member to Prison	25 (9.8)

To further determine how many adverse childhood experiences the participants experienced, categories of low, moderate and high were computed for the ACE total counts. The total sum is the total number of exposures, each counting as one for present, or zero for never occurring. Possible scores could range from no or zero points to yes or one point with a total maximum of ten. The total of 0-1 items is categorized as low, 2-3 as moderate and 4-5 and above as high for number of early stressors.

Findings showed that nearly half of the participants (n = 126) reported having 0 or 1 adverse childhood experience (which indicated low stressors), 27 % (n = 69) reported between 2 and 3 adverse childhood experiences (which indicated moderate stressors) and 24% (n = 60) reported having 4 or more adverse experiences (which indicated high stressors).

Heartland Forgiveness Scale

The Heartland Forgiveness Scale (HFS) measured the propensity to face adversity with an inclination towards forgiveness, defined as a forgiveness dispositional tendency. The HFS consists of three subcategories, which can be summed to a total score. The subscales are *forgiveness to self*, *forgiveness of others,* and *forgiveness of situation*. The total score for HFS ranged from 18 to 126 with nine items reverse scored. A score of 18-54 indicates a dispositional tendency to unforgiveness, a score of 55-89 represents an equal tendency to either forgive or not forgive and finally a score of 90 – 126 indicates a dispositional trait propensity to grant forgiveness. Findings from this study showed that the mean HFS score was M= 92.37, SD 17.06, which indicated that the participants had a dispositional trait propensity to grant forgiveness. Of the 255 participants, nine participants did not complete this scale in its entirety. Cronbach alpha for the HFS was 0.914 demonstrating excellent consistency. The three subscales each yielded an alpha of 0.84 demonstrating good internal consistency.

Compassion Satisfaction Survey

The Compassion Satisfaction Survey is a 10-question subset of the 30 item PROQOL version 5 using a Likert scale from 1= *Never* to 5 = *Very Often*. The Compassion Satisfaction Survey demonstrated excellent consistency ($\alpha = 0.90$).

Participants were asked to complete their responses in reaction to their professional experiences in the preceding *30 days* at work. Of the 255 participants, four participants did not complete this scale in its entirety. The overall mean score for the compassion satisfaction was M= 44.61, SD = 4.85. This mean score suggested that the majority of the participants n = 178 (70.9%) were high on their compassion satisfaction.

Findings Related to Research Questions

The findings are presented pertaining to each research question.

RQ*1*. *Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years of years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, Compassion Satisfaction, and Forgiveness in a select population of nurses?*

Pearson's product-moment correlation coefficient (Pearson's *r*) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status, and years of working as an RN) with *adverse childhood experiences*. Statistically significant correlations were found between the demographic variables of age (r^2 = .162, p = 0.01), gender (τ = .125, p = 0.02), and educational status (τ = .102, p = 0.05), with adverse childhood experiences. No associations were found for the demographic variable of years of practice (p = .162) with adverse childhood experiences. Table 5 presents statistically significant data related to these findings.

Table 5

Correlation between Select Demographic Variables and ACEs

Variable	n	Sig. (2 tailed)	Pearson	Kendall's
Age	252	.010	.162**	n/a
Gender	255	.024	n/a	.125*
Educational Status	255	.048	n/a	.102*
Years of Practice	251	.162	.089	n/a

Note. ** correlation is significant at the 0.01 level (2-tailed)
* correlation is significant at the 0.05 level (2-tailed)

A statistically significant relationship was found between ACEs and the variable gender. A greater proportion of females were found in the moderate (96%) n = 66 and high ACEs (95%) n= 57 ACE categories ($X^2 = 6.09$, $p = .045$) compared to the proportion of females in the low category. According to the Kruskal-Wallis test, a statistically significant association was also found between participant's age and ACEs ($X^2 = 7.78$, $p = .020$). Nurses who reported a lower number of ACEs were younger (M = 41.5 years, SD = 14.1), compared to those with moderate ACEs (M = 43.2 years, SD = 12.24) and high ACEs (M=46.1 years, SD=11.2).

Nominal variables of marital status, race and clinical specialty were also computed with bivariate computations to test for relationships with ACEs. There were no statistically significant findings for marital status ($p = .119$), race ($p = .985$) and clinical specialty ($p = .066$). Pearson's product -moment correlation coefficient (Pearson's r) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status, years working as an RN) and

compassion satisfaction. There were no statistically significant correlations found between any of the demographic variables of age (p = .522), gender (p = .701) and years of practice (p = .448) with compassion satisfaction (p > .05). Table 6 presents data related to these findings.

Table 6

Correlation between Select Demographic Variables and Compassion Satisfaction

Variable	n	Sig. (2 tailed)	Pearson	Kendall's
Age	248	.522	.041	n/a
Gender	251	.701	n/a	.021
Educational Status	251	.219	n/a	.062
Years of Practice	247	.448	.048	n/a

Nominal variables of marital status, race, educational status and clinical specialty were computed with bivariate computations to test for relationships with compassion satisfaction. The Kruskal-Wallis was used to look at differences in the variables of marital status, race, clinical specialty and education with compassion satisfaction. No statistically significant correlations were found for the variables of race (p = .195) and clinical specialty (p = .589) and marital status (p = .080) with compassion satisfaction. However, significant differences in compassion satisfaction were found across educational status (X^2 = 12.8, p =.002). Nurses with the lower levels of education (AD/diploma) reported greater levels of compassion satisfaction (M = 47.9, SD = 3.05) compared with those holding a BSN (M=44.1, SD=4.90) and those holding a masters or higher degree (M=44.6, SD=4.87). Marginal differences were found in compassion

satisfaction across marital status ($X^2 = 6.77$, $p = .080$) with nurses in the *other* category showing the lowest levels of compassion satisfaction *(*M=40.6, SD=6.73), followed by single nurses (M=43.3, SD=5.33). Married (M=45.1, SD=4.42) and divorced nurses (M=44.9, SD=5.25) had the greatest levels of compassion satisfaction.

Pearson's product -moment correlation coefficient (Pearson's *r*) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status, and years working as an RN) and total forgiveness. There were no statistically significant correlations found between any of the demographic variables and *total* forgiveness ($p > .05$). Table 7 presents data related to these findings.

Table 7

Correlation between Select Demographic Variables and Forgiveness

Variable	n	Sig. (2 tailed)	Pearson	Kendall's
Age	243	.257	.073	n/a
Gender	246	.177	n/a	-.071
Educational Status	246	.653	n/a	-.022
Years of Practice	242	.294	.608	n/a

Nominal variables of marital status, race, educational status and clinical specialty were computed with bivariate computations to test for relationships with forgiveness. The one-way analysis of variance (ANOVA) was used to look at differences in *forgiveness* across demographic groups. There were no statistically significant

correlations for marital status (p =.153), race (p = .149) and clinical specialty (p = .277) with *total forgiveness*.

Further analysis was computed to determine if there were significant relationships between the demographic variables and the *subscales* of forgiveness. Pearson's product - moment correlation coefficient (Pearson's r) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status, and years of years working as an RN) and *forgiveness of self*. No associations were found for the demographic variables of age (p = .207), gender (p = .219), educational status (p = .837) or years of practice (p = .095) with forgiveness of self. A one-way ANOVA was used to look at differences in forgiveness of self across demographic groups with the variables of marital status, race and clinical specialty. Table 8 presents data related to these findings.

Table 8

Analysis of Variance for Nominal Variables with Self- Forgiveness

Variable	F	*p*
Marital Status	1.843	.140
Race	3.42*	.018
Clinical Specialty	1.58	.166

Note. *significance at .05

There were statistically significant differences in means for *forgiveness of self* between participants on the variable of race/ethnicity (F = 3.42, p = .018). Hispanic (M = 34.0, SD = 4.90) and African-American (M = 32.8, SD = 5.91) reported greater levels of *forgiveness of self,* compared with Caucasian (M=29.8, SD=6.88) and the other races/ethnicities (M = 29.6, SD = 6.44). There were no statistically significant correlations between *forgiveness of self* and marital status (p = .140), or clinical specialty (p = .166).

Pearson's product -moment correlation coefficient (Pearson's r) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status and years working as an RN) and *forgiveness of others*. There were no statistically significant correlations found between any of the demographic variables and forgiveness of others (p > .05). A one-way ANOVA was used to look at differences in forgiveness across demographic groups with the variables of marital status, race, and clinical specialty. There were no statistically significant correlations with demographic variables of marital status, race, and clinical specialty with *forgiveness of others* (p = .05).

Pearson's product-moment correlation coefficient (Pearson's r) and Kendall's Tau were used to test for linear bivariate relationships between the demographic variables (age, gender, educational status, and years working as an RN) and *forgiveness of situation.* There were no statistically significant correlations found between any of the demographic variables and *forgiveness of situation* (p > .05). A one-way ANOVA was used to look at differences in forgiveness across demographic groups with the variables of marital status

(p = .569), race (p = .093) and clinical specialty (p = .122) with *forgiveness of situation* and revealed no statistically significant relationships.

RQ2. Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) are significant predictors of forgiveness and compassion satisfaction in a select group of nurses?

As found in research question one, there were no significant associations between demographic variables and the *total forgiveness.* However, there was an association between the demographic variable of race and the subscale *forgiveness of self.* A linear regression analysis was computed to predict *forgiveness of self* using demographic variables *(age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty)*. The demographic factors explained 11.5% of the variation in self- forgiveness (F = 1.97, p =.018). The main predictor was race, as African American nurses had greater levels of *forgiveness of self* compared with Caucasian nurses (B = 3.68, p = .002). As well the specialty of Mental health/ Forensics was predictive of lower *self- forgiveness* (B = -3.23 p = .038) compared with other nursing specialties. Table 9 presents data related to these findings.

Table 9

Predictors of Forgiveness of Self

Predictor Variable	B	SE	β	*t*	*p*
African American	3.684	1.189	.226	3.099	.002*
Latino	4.711	3.378	.089	1.394	.165
Another race	.649	2.587	.016	.251	.802
MentalHealth/Forensics	-3.233	1.552	-.165	-2.083	.038*
Med-Surg/Geriatrics	-.324	1.609	-.016	-.201	.841
ICU/OR/ER	-1.491	1.238	-.097	-1.204	.230
Adult Family	.189	1.697	.009	.111	.912
HomeHealth/Other	-2.039	1.651	-.098	-1.235	.218
BSN	1.984	1.789	.148	1.109	.269
Masters or higher	.737	1.728	.054	.426	.670
Married	.562	1.094	.041	.514	.608
Divorced	-1.259	1.594	-.062	-.790	.430
Other marital status	5.964	3.217	.126	1.854	.065
Age	.054	.087	.105	.622	.535
# of years as an RN	.054	.086	.102	.631	.529

Note. ** correlation is significant at the 0.01 level (2-tailed)
* correlation is significant at the 0.05 level (2-tailed)
B, unstandardized beta; SE, standardized error; β, standardized beta.

A regression analysis was computed to determine to what extent demographic variables *(age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty)* can predict compassion satisfaction. The

demographic factors explained 10.2% of the variation in compassion satisfaction (F=1.74, p = .044). The main predictors were education, such that nurses that held an AD or diploma, had greater levels of compassion satisfaction compared with nurses holding a masters or higher degree (B^S=.224, p = .001). Marital status was also a significant predictor, as married nurses had higher *compassion satisfaction* compared with single nurses (B^S = .167, p=.035). Table 10 presents the data related to these findings.

Table 10

Predictors of Compassion Satisfaction

Predictor Variable	B	SE	β	t	p
Age	349270	30497212	.001	.011	.991
Gender				-.730	.466
	847813928	1161783535	-.050	1.785	.076
African American					
	149073308	835152975	.130		
Latino	415286615	238475937	.111	1.741	.083
Diploma/AD	3967712382	122060381	.224	3.251	.001*
BSN	-176756707	827924402	.019	-.213	.831
MentalHealth/Forensics	-204269690	109556864	-.015	-.186	.852
Med-Surg/Geriatrics	751217850	1111133553	.055	.676	.500
ICU/OR/ER	-244724273	902058902	-.023	-.271	.786
Adult Family	485666780	1191458010	.032	.408	.684
HomeHealth/Other	-468872616	1137600734	-.032	.412	.681
Married	1631257235	771155941	.167	2.115	.035*
Divorced	1223267179	1118705588	.087	1.093	.275
Other marital status	-1434568530	2277767093	-.043	-.630	.529

Note. ** correlation is significant at the 0.01 level (2-tailed)
* correlation is significant at the 0.05 level (2-tailed)
B, unstandardized beta; SE, standardized error; β, standardized beta.

RQ3. Is there a relationship between past Adverse Childhood Experiences and nurses' present Forgiveness and Compassion Satisfaction scores among a select population of nurses?

Pearson's product-moment correlation coefficient (Pearson's *r*) was used to test for linear bivariate relationships between past Adverse Childhood Experiences and nurses' present *forgiveness* and c*ompassion satisfaction*. A statistically significant association was only found between the past ACEs and *total forgiveness (r = -.150, p = .018)*. Table 11 presents data related to these findings.

Table 11

Correlations between ACEs and Compassion Satisfaction and Total Forgiveness

Variable	n	Sig. (2tailed)	Pearson
Compassion Satisfaction	251	.895	-.008
Total Forgiveness	246	.018	-.150*

Note. * correlation is significant at the 0.05 level (2-tailed)

Further analysis was computed to determine if significant relationships were present between ACEs and *forgiveness* subscales. Statistical relationships were found between past adverse childhood experiences and *forgiveness of self* (r = -.159, p = .012) and *forgiveness of situations (r* = -.130*, p* = .039*).* There was no statistically significant relationship between ACE scores and forgiveness of others (p = .264). Table 12 presents data related to these findings.

Table 12

Correlations between ACEs and Forgiveness Subscales

Variable	n	Sig, (2tailed)	Pearson
Forgiveness of Self	251	.012	-.159*
Forgiveness of Other	252	.264	-.071
Forgiveness of Situation	252	.039	-.130*

Note. * correlation is significant at the 0.05 level (2-tailed)

To further investigate the relationships between forgiveness subscales and the categories of ACEs, a one-way ANOVA was computed. Because the F test only tells whether there are differences between the levels of a variable, also computed were pairwise comparisons to determine the exact relationships between the subscales of *forgiveness* and the categories of adverse childhood experiences. There were statistically significant differences in *forgiveness of self* across levels of ACEs (F = 5.24, p = .006). Nurses with *low* ACEs reported significantly greater *forgiveness of self*, compared to those reporting *moderate ACEs* (31.9 vs 29.1, difference=2.84, 95% CI = [.471, 5.21], p = .014) and *high* ACEs (31.9 vs 29.4, difference=2.54, 95% CI = [.089 5.00], p =.040). No differences were found between the *moderate* and *high* ACES categories (p = .966). There were statistically significant differences in total forgiveness across ACE levels (F = 4.37, p =.014). Nurses reporting less than 2 childhood adversities (low) ACEs (M=95.5, SD=15.4) had greater forgiveness compared to those reporting 2 or 3 childhood adversities (moderate) ACEs (95.5 vs 88.42), difference=7.06, 95% CI = [.988, 13.1], p=.018. Finally, no significant differences were found in *forgiveness of others* (F = 1.91,

p =.151) or in *forgiveness of situation* (F = 2.44, p =.089), difference = 5.27, 95% CI = [.988, 13.1], *p* = .018. Table 13 presents the data related to these findings.

Table 13

ACE Comparisons Across Forgiveness Subscales

		Multiple Comparison TUKEY HSD				95% CI	
Dependent Variable	ACE CAT	ACE CAT	Mean Difference I-J	Std. Error	Sig.	Lower Bound	Upper Bound
Forgiveness of self	Low	Moderate	2.837	1.003	.014*	.4708	5.2050
		High	2.544	1.041	.040*	.0890	4.999
	Moderate	Low	-2.837	1.0039	.014*	-5.205	-.4708
		High	-2.837	1.1768	.966	-3.068	2.481
	High	Low	-2.544	1.041	.040*	-4.999	-.0890
		Moderate	.29378	1.1768	.966	-2.481	

Note. * The mean difference is significant at the 0.05 level

RQ4. Does the present trait of Forgiveness moderate the impact of past Adverse Childhood Experiences on a select population of nurses' capacity for experiencing Compassion Satisfaction? If so, to what extent does Forgiveness ability moderate the impact of ACEs on Compassion Satisfaction?

There was no indication to run a moderation program in this study, as the requirement of moderation was not met. The independent variable of Adverse Childhood Experiences did not have a statistically significant correlation to the dependent variable compassion satisfaction, and that relationship is a requirement for running a moderation computation. Therefore, the test was not justified. The Kruskal-Wallis test, a non-

parametric equivalent to the one-way ANOVA, was used to assess the relationship between ACEs and *compassion satisfaction*. Results show that there were no significant differences in *compassion satisfaction* across levels of ACEs (Chi-square = 3.12, p = .210). The means for all three categories of ACEs: low, medium and high, as they relate to compassion satisfaction are presented in Table 14.

Table 14

Means for Compassion Satisfaction Across ACE Categories

ACE CAT	M	n	SD
Low	44.817	126	4.807
Moderate	43.742	66	4.899
High	45.135	59	4.861
Total	44.609	251	4.854

A computation utilizing the variable of f*orgiveness*, as a moderator, could not be completed since the independent ACE variable did not statistically correlate with the dependent variable of *compassion satisfaction*. However, *forgiveness* as an independent variable was found to be positively correlated with the dependent variable of *compassion satisfaction*. Statistically significant, moderate, positive correlations were found between *forgiveness* and *compassion satisfaction* on all the *forgiveness* subscales and total. Values ranged from .205 to .371 with $p < 0.01$ when correlated with Spearman Rho analysis. Table 15 presents the data for the findings.

Table 15

Correlation between Forgiveness Scores and Compassion Satisfaction

Variable	n	Sig. (2 tailed)	Spearman's Rho
Self	247	.001	.205**
Other	249	.000	.345**
Situation	250	.000	.371**
Total	244	.000	.354**

Note. ** correlation is significant at the 0.01 level (2-tailed)

A regression analysis was computed, to establish the gain in predictive power for *compassion satisfaction*, when *forgiveness* was the independent variable. A hierarchical regression was used and the demographic variables (education and marital status), that were previously established as having a correlation with the dependent variable, were entered in the first block. *Forgiveness total* was entered in a second block. The advantage of using this method was to be able to estimate the predictive power of the demographic variables alone, as well as determine the gain in predictive power that *forgiveness* added to the model, beyond the demographic characteristics. Note that due to being highly negatively skewed, the distribution of *compassion satisfaction* was power transformed. The power that best corrected the asymmetry was found to be model 6. Since this created very large beta coefficients, reporting of standardized betas (B^S), allowed greater ease in interpretation.

The demographic characteristics of education and marital status significantly predicted *compassion satisfaction* ($F = 3.836$, $p = .002$) and explained 7.5% of the variability observed in the dependent variable. As well, the *forgiveness total* score

explained 14.6% of the variability in *compassion satisfaction*, resulting in a significant gain in predictive power (F Change = 44.15, p <.001) when f*orgiveness* was added to the model.

Note that the reference categories for the model are the demographics of holding a diploma/AD as Education Status and being single as the Marital status for the constants. Nurses who held a BSN (B^S = -.402, p <.001) or a masters or higher degree (B^S = -.367, p =.001) had lower *compassion satisfaction* compared with nurses with only a diploma or Associate degree. Married nurses had greater *compassion satisfaction* compared with single nurses (B^S =.170, p =.017). Finally, *forgiveness* is significantly and positively associated with *compassion satisfaction* (B^S = .386, p = <.001). Table 16 presents the data for the findings.

Table 16

Prediction of Compassion Satisfaction by Demographics and Total Forgiveness

Predictor Variable	B	SE	β	t	p	R^2 Change
Model 1						
(Constant)	11444801010.000	1202847259.000		9.515	.000	
BSN	-3758276212.000	1136676676.000	-.394	-3.306	.001*	
masterorhigher	-3633195842.000	1147648565.000	-.376	-3.166	.002*	
married	1611347882.000	755535378.300	.164	2.133	.034*	
divorced	1233305906.000	1084592141.000	.085	1.137	.257	
other_marital	-1719401985.000	2206784947.000	-.051	-.779	.437	.075
Model 2						
(Constant)	1428085320.000	1869967464.000		.764	.446	
bsn	-3843235365.000	1045565125.000	-.402	-3.676	.000*	
masterorhigher	-3554321197.000	1055645352.000	-.367	-3.367	.001*	
married	1670408132.000	694979495.100	.170	2.404	.017*	
divorced	1650933029.000	999559089.000	.114	1.652	.100	
other_marital	-3336511058.000	2044285723.000	-.099	-1.632	.104	
Forgiveness_total	108094373.800	16268799.590	.386	6.644	.000*	.146

Note. a. Predictors: (Constant), other marital, divorced, masterorhigher, married, bsn
b. Predictors: (Constant), other marital, divorced, masterorhigher, married, bsn, Forgiveness total
c. Dependent Variable: P_compassion

Having established the statistically significant association of *forgiveness* with *compassion satisfaction*, further analysis was undertaken to establish the predictive contribution of the individual subscales of *forgiveness* on the outcome of *compassion satisfaction*. A hierarchical regression of demographic variables and *forgiveness* subscales was computed to predict *compassion satisfaction*. The hierarchical regression was conducted to estimate the added contribution of each dimension of *forgiveness* to

predict *compassion satisfaction,* as the variables were added in blocks: block 1 using demographic variables, block 2 adding *forgiveness of situation*, block 3 adding *forgiveness of other* and finally block 4 adding *forgiveness of self.*

The demographic variables (education and marital status) accounted for 7.5% of the variation in *compassion satisfaction* (F=3.85, p =.002). Including *forgiveness of situation* added 16. 4% to the explained variability, representing a significant gain (F = 50.77, p < .000). The addition of *forgiveness of other* did not represent a significant gain in predictive power (F = 2.19, p = .140) in *compassion satisfaction* in this study. Finally, adding *forgiveness of self* also did not represent a significant gain in predictive power (F=.418, p =.519) in *compassion satisfaction*. Table 17 presents the data related to the findings of each of the four models.

Table 17

Model Predicting Compassion Satisfaction by Demographic Variables and Subscales of Forgiveness.

Predictor Variable	B	SE	β	t	p
Model 1					
(Constant)	9297872675.561	518978758.386		17.916	.000
Masters or Higher	125080370.695	660165148.714	.013	.189	.850
Diploma	3758276212.432	1136676676.313	.216	3.306	.001*
Divorced	-378041976.448	935666144.992	-.026	-.404	.687
Other marital	-3330749867.518	2122671142.853	-.099	-1.569	.118
Single	-1611347882.158	755535378.275	-.143	-2.133	.034*
Model 2					
(Constant)	-66847431.287	1396433326.261		-.048	.962
Master or Higher	288411767.524	600589969.262	.030	.480	.632
Diploma	3838265124.649	1033407218.723	.221	3.714	.000*
Divorced	-255303606.278	850783128.057	-.018	-.300	.764
Other- Marital	-4402031186.634	1935556569.733	-.131	-2.274	.024*
Single	-1775043005.951	687236994.318	-.158	-2.583	.010*
Forgiveness of Situation	299573729.898	42044498.968	.407	7.125	.000*
Model 3					
(Constant)	-767232452.181	1471098660.213		-.522	.602
Masters or Higher	297332013.850	599110618.725	.031	.496	.620
Diploma	3704237755.711	1034778935.093	.213	3.580	.000**
Divorced	-116143260.629	853836418.687	-.008	-.136	.892
Other Marital	-4687128995.734	1940275175.072	-.139	-2.416	.016*
Single	-1783194870.359	685531656.715	-.158	-2.601	.010*
Forgiveness Situation	240981503.516	57669806.449	.327	4.179	.000**
Forgiveness Others	82704950.843	55875062.775	.117	1.480	.140

Table 17 continued

Model Predicting Compassion Satisfaction by Demographic Variables and Subscales of Forgiveness

Predictor Variable	**B**	**SE**	***β***	***t***	***p***
Model 4					
(Constant)	-417978452.031	1568854818.955		-.266	.790
Masters or Higher	293487612.847	599883323.058	.030	.489	.625
Diploma	3639898556.498	1040830703.069	.210	3.497	.001**
Divorced	-137630339.789	855541388.638	-.009	-.161	.872
Other Marital	-4565166388.706	1951819260.442	-.136	-2.339	.020*
Single	-1813332934.718	687963129.547	-.161	-2.636	.009*
Forgiveness Situation	263778075.281	67655531.396	.358	3.899	.000**
Forgiveness Other	83803310.885	55970166.719	.119	1.497	.136
Forgiveness Self	-35303382.203	54603261.208	-.049	-.647	.519

Note.

a. Dependent Variable: P compassion

b. Predictors: (Constant), single, diploma, other marital, divorced, masterorhigher

c. Predictors: (Constant), single, diploma, other marital, divorced, masterorhigher, Forgiveness situ

d. Predictors: (Constant), single, diploma, other marital, divorced, masterorhigher, Forgiveness situ, Forgiveness others

e. Predictors: (Constant), single, diploma, other marital, divorced, masterorhigher, Forgiveness_situ, Forgiveness_others, Forgiveness_self

Looking at the model coefficients for the last step (model 4), we can see that education and marital status are statistically significant predictors of *compassion satisfaction.* Those holding a diploma or AD ($B^S = .210$, $p = .001$) had higher *compassion satisfaction* than those holding a masters or higher degrees ($p = .625$). Single nurses had

less *compassion satisfaction* compared to married nurses (B^S = -.161, *p* =.009). Of the 3 forgiveness scales, only *forgiveness of situation* significantly predicts compassion satisfaction in this study (B^S= .358, p <.001).

RQ5. What is the relationship of Forgiveness to Compassion when controlling for ACEs in a select group of nurses?

No correlation was found between the number of ACEs and *compassion satisfaction* (r = -.023, *p* = .722). However, moderate positive correlations were found between *total forgiveness* and the subscales *of self, other* and *forgiveness of situation* and *compassion satisfaction* with values ranging from .205 to .371 (*p* < =.001). Table 18 presents the data for the findings.

Table 18

Correlations Between Total Forgiveness and Subscales and Compassion Satisfaction

Variable	n	Sig. (2 tailed)	Spearman Rho
Forgiveness Self	247	.001	.205**
Forgiveness of Other	249	.000	.345**
Forgiveness of Situation	250	.000	.371**
Forgiveness Total	244	.000	.354**

Note. ** correlation is significant at the 0.01 level (2-tailed)

RQ6. *Is there a relationship between past ACEs and preferred choice of employment specialty among a select population of nurses?*

The categories of low, moderate and high adverse childhood experiences were correlated with the identified clinical specialty of choice in the study participants. The ACEs of the study participants were statistically significantly related to their present

choice of work clinical specialty (X^2, 38.62, p = .03). Table 19 presents the data for the category findings. The employment setting with the greatest number of participants with high ACEs (n=11) was the Adult Health / Family, followed by Acute Care/ICU (n=10), and other (n=9). Interestingly, the employment setting with the greatest number of participants with low ACEs (n=30) was the Neonatal setting. Table 19 presents the data for the findings.

Table 19

Clinical Specialties to ACE Categories

		ACE CAT			Total
		low	moderate	high	
Clinical Specialty	Neonatal	30	10	4	44
	Pediatric	6	8	2	16
	Maternal Child	1	0	1	2
	Psych/Mental Health	13	6	3	22
	Forensics	4	2	5	11
	Medical/Surgical	15	11	4	30
	Geriatrics	2	1	2	5
	Acute Care/ICU	10	3	10	23
	OR/PACU	6	0	2	8
	ER	19	8	7	34
	Adult Health/Family	10	8	11	29
	Home Health	1	0	0	1
	Other	9	11	9	29
Total		126	68	60	254

Summary

The purpose of this descriptive, correlational research study was to 1) examine the relationship between *adverse childhood experiences, forgiveness* and *compassion satisfaction* in nurses; 2) determine the impact of *forgiveness* as a moderator on the relationship of *adverse childhood experiences* and *compassion satisfaction*; and 3) explore which demographic characteristics serve as predictors of *forgiveness* and *compassion satisfaction*. Six questions were formulated and answered. This chapter presented a discussion of the results of the data obtained.

In this study, there were 255 registered nurses, with at least six months of working experience. The gender of the participants was identified primarily as 91% (n = 232) female with a mean age of 43.05 (SD = 13.09). The ethnicity of the participants was primarily Caucasian with 72.9% (n = 186). More than half were married at the time of the survey (n = 159), and of the participants over 90% had a BSN or higher (n = 229). The average length of time working as a nurse for these participants was 16.92 years (SD = 12.69).

There was no statistically significant association between ACEs and *compassion satisfaction* in these nurses and thus a moderation computation could not be justified. There was however, a positive correlation between ACEs and *total forgiveness* and the subsets of *forgiveness of self* and *situation*. Adverse childhood experiences were not correlated with *forgiveness of others.*

There was also a positive correlation between *total forgiveness* and all three subscales of f*orgiveness of self, other* and *situation* with *compassion satisfaction.* However, only the subscale of *forgiveness of situation* was predictive of *compassion*

satisfaction. The demographics of being married and holding a diploma or AD degree were predictive of *compassion satisfaction* in this study.

Also, the demographics of gender, educational status and age were all found correlated with ACEs in this study. The African American race was correlated to and predictive of higher *self- forgiveness* and the specialty of Mental health/Forensics was predictive of lower *self- forgiveness*. And finally, there was a correlation between ACE categories of low, moderate and high adverse childhood experiences with clinical specialties of choice. The employment setting with the greatest number of participants with high ACEs (n=11) was the Adult Health / Family while the employment setting with the greatest number of participants with low ACEs (n=30) was the Neonatal setting.

Summary Table of the findings Summary of Research Findings

Research Questions	Instrument	Statistical Test	Findings
RQ1. Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, Compassion Satisfaction, and Forgiveness in a select population of nurses?	Demographic Questionnaire	Descriptive (frequency distribution, percentages, means, SD and Student t tests One-way ANOVA Kruskal-Wallis test Bivariate analysis. Pearson product-moment correlation coefficient	*Bivariate Demographic Findings for ACES:* Statistically significant correlations were found between the demographic variables of age (r^2 = .162, p = 0.01), gender (τ = .125, p = 0.02), and educational status (τ = .102, p = 0.05), with adverse childhood experiences. *Compassion Satisfaction and Demographics.* Significant differences in *compassion satisfaction* were found across education (Chi-square = 12.8, p =.002). *Forgiveness and Demographics.* There were no statistically significant correlations found between any of the demographic variables and total forgiveness (p > .05). However, there was a statistically significant positive correlation between *self- forgiveness* and race/ethnicity (F= 3.42, p = .018) and statistically significant negative correlation with the specialty of Mental health/ Forensics (B = -3.23, p = .038).
Q2. Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years of working as an RN, and choice of employment specialty) are significant *predictors* of Forgiveness and Compassion Satisfaction in a		Hierarchical Regression	*Predictors of Forgiveness* The demographic factors explained 11.5% of the variation in self-forgiveness (F = 1.97, p =.018). The main predictor was race, as African American nurses had greater levels of *forgiveness of self* compared with Caucasian nurses (B = 3.68, p = .002). *Predictors of Compassion Satisfaction* The demographic factors explained 10.2% of the variation in compassion satisfaction (F=1.74, p = .044). Marital status was also a significant predictor, as married nurses had higher *compassion satisfaction* compared with single nurses (B^S = .167, p =.035). Those holding a

Research Questions	Instrument	Statistical Test	Findings
select group of nurses?			diploma or AD (B^S = .210, p = .001) had higher compassion satisfaction than those holding a masters or higher degrees (p = .625). Single nurses had less compassion satisfaction compared to married nurses (B^S = -.161, p =.009). Of the 3 forgiveness scales, only forgiveness of situation significantly predicts compassion satisfaction in this study (B^S= .358, p <.001).
Q3 Is there a relationship between past adverse childhood experiences on nurses' present trait forgiveness total score and compassion satisfaction among a select group of nurses?		Pearson product-moment correlation coefficient	A statistically significant association was found between the past ACEs and *total forgiveness (r = -.150, p = .018)*. Statistical relationships were also found between past adverse childhood experiences and *forgiveness of self* (*r* =-.159, *p* = .012) and *forgiveness of situations (r* = -.130*, p* = .039*).* There was no statistically significant relationship between adverse childhood experiences and forgiveness of others (*p* = .264).
Q4. Does the present trait of Forgiveness moderate the effects of past Adverse Childhood Experiences on nurses' capacity for experiencing Compassion Satisfaction? If so, to what extent does Forgiveness ability predict Compassion Satisfaction		Spearman Rho Analysis	Forgiveness did not moderate the relationship between ACEs and compassion satisfaction. However, significant, moderate, positive correlations were found between forgiveness and compassion satisfaction on all the forgiveness subscales and total forgiveness scores. Values ranged from .205 to .371 with $p < 0.01$ when correlated with Spearman Rho analysis.

Research Questions	Instrument	Statistical Test	Findings
among a select group of nurses?			
Q5. What is relationship of Forgiveness to Compassion Satisfaction controlling for ACES in a select group of nurses?		Hierarchical Regression	The *forgiveness total* score explained 14.6% of the variability in *compassion satisfaction*, resulting in a significant gain in predictive power (F Change = 44.15, p <.001) when forgiveness was added to the model.
Q6. Is there a relationship with past adverse childhood experiences and nurses' preferred work specialty among a select group of nurses?		Chi- Square	The ACEs of the study participants were statistically significantly related to their present choice of work clinical specialty (Chi-Square, 38.62, p = .03)

CHAPTER V

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter provides an overview of the study and a discussion of the research findings. The discussion of research findings compared and/or contrasted the present findings to prior research studies on the same topics. A discussion of strengths, limitations, implications for future research, nursing education, practice, and health policy were explored.

Summary of the Study

This descriptive, correlational research study examined the variables of adverse childhood experiences and *forgiveness* in nurses, to determine their relationship to each other and their relationship and predictive ability to *compassion satisfaction* in a group of nurses. The relationships of these three constructs to each other were investigated. Additionally, seven demographic variables were used to further understand the relationships between ACEs, *forgiveness* and *compassion satisfaction*. In this population, demographics were also used to control for extraneous variables in order to understand the impact of the independent variables on the dependent variable of *compassion satisfaction*.

Six questions were formulated and answered using descriptive statistics, bivariate analysis or Pearson's correlation, and ultimately hierarchical regression. This chapter presented a discussion of the results of the data obtained.

Research Questions

Research Question 1

Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, compassion satisfaction, and forgiveness in a select population of nurses?

Research Question 2

Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) are significant predictors of forgiveness and compassion satisfaction in a select population of nurses?

Research Question 3

Is there a relationship between past Adverse Childhood Experiences and nurses' present trait forgiveness and compassion satisfaction among a select population of nurses?

Research Question 4

Does the present trait of forgiveness moderate the impact of past Adverse Childhood Experiences on a select population of nurses' capacity for experiencing compassion satisfaction? If so, to what extent does forgiveness ability moderate the impact of ACEs on compassion satisfaction?

Research Question 5

What is the relationship of forgiveness to compassion satisfaction when controlling for ACEs among a select population of nurses?

Research Question 6

Is there a relationship between past ACEs and preferred choice of employment specialty among a select population of nurses?

Discussion of Findings Related to Research Questions

RQ1

Is there a relationship between the selected demographic variables (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) and Adverse Childhood Experiences, compassion satisfaction, and forgiveness in a select population of nurses?

The population in this study consisted of N = 255 nurses, primarily Caucasian (72.9%) and African American (21.6%). The participant's ethnicity represented a meaningful representation of African American nurses, as it is more than double the self-identified 9% nationwide. The participants were well-educated, with an overwhelming majority (90%) having a BSN or higher degree. The findings were based on nurses with a median age of 40 and a median work experience of 13 years.

The demographics in this study contrasted with earlier studies where recruitment resulted in primarily younger nurses, in which the majority of participants were in their twenties or thirties (Li et al., 2014; Myer et al., 2015). The range of work experience in this study reflected novice to expert cumulative wisdom, as the participants had worked from 1 to 50 years as a nurse. A cross section of nursing practice was acquired, as twelve distinct nursing specialties were represented in this study. Similar studies in the past (Hinderer et al., 2014; Smart et al, 2014) were not able to recruit a racially diverse study population. As well, previous studies (Hooper et al, 2010) exploring compassion

satisfaction were focused on specific clinical areas of interest in a hospital setting or only recruited student nurses (Mason & Nel, 2012) or recent graduates (Myer et al., 2015). Other studies focused on a singular specialty rather than a cross section of work environments (Hinderer et al., 2014; Potter et al., 2010; Yoder, 2010). The educational level of participants in a previous study was preponderantly made up of AD or diploma graduates (Hooper et al., 2010). An achieved male (9%) representation in this study is reflective of the number of men in nursing nationally.

Statistically significant correlations were found between the demographic variables of age, gender, and educational status with adverse childhood experiences. Of interest, one-half (51%) of the N = 255 nurses who answered the survey, were in the moderate or high categories for ACEs, which was defined in this study, as two or higher adverse experiences before eighteen years of age. Of these nurses, 23.5 % were in the category of high which was defined as having 4 or more ACES before the age of 18. Males in this study, with moderate or high ACEs n= 6, represented 26% of the male study participants. The academic accomplishments of this population of nurses, despite 50 % having experienced multiple childhood adversities, suggests a role for resilience. A previous study determined that a stronger predictor of health was a person's *beliefs* about their child adversity exposure and not their total ACE count or categories (Reuben et al., 2015). However, the total ACE numbers in this study were considerably higher than numbers found in other populations.

The number of nurses in this study identifying as having four or more ACEs, was double the 12.1% found in the Kaiser Permanente research study (Anda et al., 2009). The percentage of nurses in the High category in this study, was greater than the

percentage identified in other population studies as well including: participants who identified as elite athletes (Kaier et al., 2015), participants in the Irish Longitudinal study (McCrory et al., 2015), and the US National Guard soldiers (Rudenstine et al., 2015).

A statistically significant association was found between age and ACEs in this study. Nurses who reported a low number of ACEs were younger compared with those that reported 2 or more ACEs. In contrast to a study conducted by (Nurius, et al., 2015) participants with a difference in age (Mean age = 57) did not report significant bivariate correlation findings for age and ACEs.

There were no statistically significant correlations found between any of the demographic variables and *total forgiveness*. However, there was a statistically significant correlation between *self- forgiveness* and race/ethnicity. Hispanic and African-American participants reported greater levels of *forgiveness to self,* compared with Caucasian and the other self-identified races/ethnicities. Self-forgiveness has been determined as crucial to measures of wellbeing (Thompson et al., 2005). Prior forgiveness research has found gender differences, with women having a greater sense of being forgiven by God, after an intervention; and adding a sense of purpose and spiritual growth for both genders respectively (Charzynska, 2014; Akhtar., 2017). No reviewed prior studies reported statistically significant findings for forgiveness and race.

Statistically significant findings were found for *compassion satisfaction* and education. Nurses with the lower levels of education (AD/diploma) reported greater levels of *compassion satisfaction* compared with those holding a BSN or higher degree. A previous study suggested that nurses who advanced their studies did so in order to remove themselves from work related emotional distress (Sheppard, 2015). A previous

study reported that nurses with higher compassion satisfaction were correlated with greater age and lower education status, similarly lower educated nurses (AD/diploma) in this study scored higher on compassion satisfaction as well (Hinderer et al., 2014). Several previous studies (Hooper et al., 2010; Potter et al., 2013) found no demographic variables correlated with *compassion satisfaction*. Additionally, the researchers reported 20% of participants had scored low on compassion satisfaction in their studies (Hooper et al., 2010). Compassion fatigue, a term debated, as to its appropriateness in nursing, was found to predict lower compassion satisfaction after controlling for pre-existing stress (Myer et al., 2015; Sheppard, 2015).

Research RQ2

Which selected demographic characteristics (age, gender, race/ethnicity, marital status, educational status, years working as an RN, and choice of employment specialty) are significant predictors of forgiveness and compassion satisfaction in a select population of nurses?

As found in research question one, there were no significant associations between demographic variables and the *total forgiveness.* However, there was an association between the demographic variable of race and the subscale *forgiveness of self.* The main predictor was race, as African American nurses had greater levels of *forgiveness of self* compared with Caucasian nurses.

As found in RQ1 there was a significant difference in participant's educational status and *compassion satisfaction*. The demographic factors explained 10.2% of the variation in *compassion satisfaction*. The main predictors were education, such that nurses that held an AD or diploma, had greater levels of *compassion satisfaction*

compared with nurses holding a masters or higher degree. Marital status was also a significant predictor, as married nurses had higher *compassion satisfaction* compared with single nurses. This demographic of marital status was not previously implicated in predicting *compassion satisfaction* in previous studies, however variables of support outside of work, exercise, and mediation were identified (Hinderer et al., 2014). Previously found to be predictive of *compassion satisfaction* were organizational support and group cohesion (Li et al., 2014).

RQ3

Is there a relationship between past Adverse Childhood Experiences and nurses' present trait forgiveness and compassion satisfaction among a select population of nurses?

Statistical relationships were found between past adverse childhood experiences and *total forgiveness* and *forgiveness of self and situations.* There was no statistically significant relationship between ACE scores and *forgiveness of others*. There were significant differences in *self-forgiveness* across levels of ACEs. Nurses with low ACEs reported significantly greater *self- forgiveness* compared to those reporting moderate and high ACEs. There were statistically significant differences in total forgiveness across ACE levels as well. Nurses reporting less than 2 ACEs had greater forgiveness compared to those reporting 2 or 3 ACEs. Prior research points to the healing that occurs when past transgressions are reframed, and negativity is released toward the transgressor (Thompson, 2015).

After adverse childhood experiences, the participants in this study carried into adulthood low self-forgiveness, even though these abuses were done to them by others,

when they were vulnerable children. Lacking in the participants was self-forgiveness, while forgiveness to others did not reflect any diminishing outcomes due to these events. Previous studies demonstrated similar findings, as both men and women were statistically significantly harder on themselves, and less self-forgiving to themselves, compared to what they were able to extend to others (Charzynska, 2014). Forgiveness significantly moderated the effects of lifetime stress on mental health, though not on physical health and specifically PTSD in studies (Karairmak & Guloglu., 2014; Toussaint et al., 2016). Researchers have suggested that acknowledging feelings of guilt, without being at fault, is the first step to self- forgiveness (Gamlund, 2014).

RQ 4

Does the present trait of Forgiveness moderate the impact of past Adverse Childhood Experiences on a select population of nurses' capacity for experiencing compassion satisfaction? If so, to what extent does forgiveness ability moderate the impact of ACEs on compassion satisfaction?

A computation utilizing the variable of forgiveness, as a moderator, could not be completed since the independent ACE variable did not statistically correlate with the dependent variable of *compassion satisfaction*. However, *forgiveness,* by itself, as an independent variable, was found to be positively correlated with the dependent variable of *compassion satisfaction*. Significant, moderate, positive correlations were found between *forgiveness* and *compassion satisfaction* on all the *forgiveness* subscales and total. The demographic variables (education and marital status) accounted for 7.5% of the variation in *compassion satisfaction.* Including *forgiveness of situation* without the other two subscales added 16. 4% to the explained variability, representing a significant gain.

The addition of *forgiveness of other* did not represent a significant gain in predictive power in *compassion satisfaction* in this study. Finally, adding *forgiveness of self* also did not represent a significant gain in predictive power in compassion satisfaction. Previous research had reported significant effects of forgiveness on anger and negative affect, which then acted as mediators on PTSD and depression (Karairmak & Guloglu, 2014). Research with females has found them to be consistently more likely to internalize their responses to mistreatment after victimization, such that those who could forgive themselves had diminished mental health consequences from the victimization (Rensburg & Raubenheimer, 2015). Compassion satisfaction, as the experience of uplift experienced from the helper role, does not reflect the added burden of carrying past trauma from childhood in the present experience of professional work. The lack of self forgiveness may reflect the lasting signal of experiences not yet resolved.

RQ5

What is the relationship of forgiveness to compassion satisfaction when controlling for ACEs among a select population of nurses?

In this study, the *forgiveness total* score alone explained 14.6% of the variability in *compassion satisfaction*, resulting in a significant gain in predictive power when forgiveness was added to the model. Nursing research, utilizing the variable of forgiveness, has not been done prior to this study. Researchers have called for and recognized the need to explore the contributing healing potential of spirituality in sustaining *compassion satisfaction* in nurses (Sheppard, 2015) to increase capacity for self- compassion (Homan, 2014), and support emotional intelligence (Heffernan et al., 2010), and to intentionally know self (Dunn, 2009). There has been a call to defend the

nurses' rights to experience compassion to self, by ensuring that they work in supportive systems that recognize the nurse as worthy of compassion. Organizations have been called to be supportive of nurses, fueled by the knowledge that these efforts will ultimately improve empathic care to patients, but just as importantly, they must not ignore the moral imperative owed to each nurse (Tierney et al., 2017).

It is interesting to note that on each of the three subscales, a score of 31 is considered average by the developer of the tool (Thompson et al., 2005). The total score average is 93 for this instrument on forgiveness. Though not statistically significant, the females in each subscale fell slightly below 31 and the males were a point or two above the mean. The *self- forgiveness* subscale for males was above the average at M= 32.12, while for participating females (M= 30.40) their scores again fell below the average. This pattern was reflected as well, with the subscale of *forgiveness of others,* as the males were just above the average of 31 (M= 31.83, SD 7.28). The male participants scored their highest mean in the sub category of *forgiveness to situations* with M= 33.00. The males were above the average *forgiveness total score* as well, with the females again falling below average. For males the *forgiveness total* was M = 97.7, SD 17.0, while below average again, the females scored at M= 91.80, SD 17.02.

Again, of note the means for *forgiveness of self* are all below the average of 31 despite the education background, as (M= 28.7) AD/Diploma participants; (M= 30.7) BSN participants and (M= 30.7), master's degree or higher participants all fell below that benchmark. The total forgiveness score, with a 93 average, is met only by the BSN participants with (M= 92.9), as the AD/Diploma participants achieved a less than average (M = 91.4), and the masters or higher participants had a less than average (M= 91.83).

Though not statistically significantly different from each other the scores are below average for *forgiveness of self.*

Of note, the specialty of Mental Health/ Forensics participants scored lowest for nurses' responses in the area for *self -forgiveness* (M = 28.67), followed by ICU/OR/ER (M= 29.84) for the second lowest score. Medical /Surgical nurses (M=32.76) were the highest for *self-forgiveness.* For *forgiveness of others,* Mental Health/ Forensic nurses were again with the lowest mean with M= 29.13, SD = 5.98 and Medical/Surgical nurses achieved the highest mean (M= 31.77, SD = 6.39), a score above average. Medical/Surgical nurses in this study, achieved the highest mean in *forgiveness of situations* as well, with (M= 33.57), a score above average. Neonatal/ Pediatric/ Maternal Child nurses scored the lowest in *"forgiveness of situations"* with a M = 30.02. And finally, Mental /Health Forensic nurses scored the lowest for their *total forgiveness* scores with a M = 88.74 (SD = 13.65), as Medical /Surgical nurses scored above average with 98.38 (SD 15.86).

RQ 6

Is there a relationship between past ACEs and preferred choice of employment specialty among a select population of nurses?

Each of the 12 specified clinical specialties were correlated with one of three categories for past childhood abuse. Low represented 0 or 1 abuse from the delineated adverse childhood experiences, which occurred before 18 years. Moderate represented those with 2 or 3 ACEs before 18 years of age and high represented 4 or more. The categories of low, moderate and high adverse childhood experiences were correlated with the identified clinical specialty of choice in the study participants. The ACEs of the study

participants were statistically significantly related to their present choice of work clinical specialty. Recent research (Metzler, 2017) observed that having 4 or more ACEs put a person at risk, not only for failing to graduate high school but also for being 2.3 times the risk for unemployment and 1.6 times the risk for lifelong poverty. Evaluated by the social determinants of health alone, the participants in this study were at great risk. However, the participants in this study, demonstrated a resilience and capacity to overcome that provided evidence to support a multi-theory and holistic approach is required, to understand the human condition after childhood trauma.

Findings Related to the Theoretical Framework

The theoretical framework that guided this research was the work of Jean Watson. Watson recommended shifting nursing from a continuum of health and illness to a paradigm containing a spiritual component. Needed is recognition and increased consciousness and attention to the spiritual component of care, viewed as a moral responsibility for the nurse and patient (Watson, 2002). The dignity of the nonreducible human being, of the nurse, was the focus for this study. The call to self-care in the nurse, as they attend to their past trauma, requires shame free acknowledgement of the injuries, as the first step to healing. The participants in this study courageously became vulnerable with their past childhood injuries and their present experiences with forgiveness, as well as with their work driven compassion satisfaction outcomes. Caring for self and others includes healing spiritually and cultivating respect for self.

Spirituality and social support are buffers to chronic stress that have been identified by researchers (Uren & Graham, 2013). Early trauma, as reflected in high ACEs, had a negative impact on self- forgiveness in participants in this study. Yet

forgiveness in these participants continued to drive their derived compassion satisfaction, as they ministered to their patients. Overcoming deleterious early experiences, these nurses responded to the suffering of others with recognition of the sacredness of their commitment to and responsibility for being present. Nursing has a theory for caring and loving and fully utilizing self with the ten caritas processes developed by Jean Watson (Mastrian & McGonigle, 2014). The participants in this study also fearlessly engaged in an act of authenticity, by contributing to this research. Their courage, exhibited at a request for vulnerability, has the potential to guide trauma informed care.

Limitations of the Study

Despite expanding the substantive body of research knowledge, several limitations for this research exist.

1. The sample was limited to one geographic location in southeast region of the U.S. Therefore, the findings for this study may not be generalizable to other nurses located across the U.S.
2. The use of surveys with self-reported data was a limitation for this study. Study participants were asked to respond to questions regarding demographics, adverse childhood experiences, forgiveness and compassion satisfaction. Self-reported responses by the participants can lend to recall bias and a possible unintentional distortion of the facts (Burns & Grove, 2011). Self-reporting data was also limited by the fact that the participants' responses could not be verified independently.
3. The use of a descriptive, correlational research design for this study limited the ability to make causal inferences among variables.

4. Use of an anonymously accessed computer program for the survey could not ensure that the respondents did not access the survey more than one time.

Strengths of the Study

1. Findings from this study validate the importance of screening for adverse childhood experiences, as participants willingly engaged in difficult questions.
2. Findings point to the prevalence of exposures to all forms of early childhood abuse.
3. The demographics represented provided a voice for previously underrepresented races and the male gender.
4. Findings from this study were based on participants from twelve different clinical specialties across institutions and urban and rural boundaries.
5. This study identified the impact of early trauma on self forgiveness.
6. This study adds to the understanding of the predictive ability of demographic factors and forgiveness on the outcome of compassion satisfaction.
7. The use of Qualtrics for the management of information diminished error with data collection and analysis.

Conclusions

1. The demographic variables of age, gender and educational status were correlated with adverse childhood experiences.
2. The demographic variable of education was correlated with *compassion satisfaction*
3. There were no statistically significant demographic variables associated with *total forgiveness,* however race was positively associated with *self forgiveness* and the

specialty of Mental health/Forensics was negatively associated with *self forgiveness.*

4. The demographic variable of race, with African American nurses as the predictor, explained 11.5% of the variation in *self-forgiveness*.
5. The demographic factors of married and holding a diploma/AD degree explained 10.2% of the variation in *compassion satisfaction*.
6. Only the subscale of *forgiveness of situation* predicted compassion satisfaction.
7. Past adverse childhood experiences correlated with *forgiveness of self* and *situation and total forgiveness* but not with *forgiveness of others.*
8. *Forgiveness* did not moderate the relationship between ACEs and *compassion satisfaction.*
9. There were significant positive correlations between *forgiveness* and *compassion satisfaction* on all the forgiveness subscales and total.
10. The *forgiveness total* score alone explained 14.6% of the variability in *compassion satisfaction.*
11. The ACE category scores of low, moderate and high correlated to the participant nurses' present choice of work specialty.

Implications for Nursing Education

Findings from this study have relevant implications for nursing education, nursing practice, and health policy. Adverse childhood experiences occur with incidence and prevalence that cannot be ignored. ACEs require that healing processes be initiated to mitigate the long term sequalae of physical, spiritual, psychological and mental suffering that is not the inevitable cost, if they are addressed. As healthcare providers experience

ongoing traumas at work, their work stressors fall on a foundation of their prior childhood life experiences. Developing strictly a competent practitioner, capable of critically and objectively applying scientific principles with rational thought, does not ensure achievement of the necessary capacity to care and express compassion so integral to nursing (Claesson, 2012). This study revealed a need for self -forgiveness in the providers of care themselves, who are no less deserving than those for whom they care.

For two decades, research has studied the symptoms of burnout and compassion fatigue and more recently compassion satisfaction, in health professionals (Figley, 1995). Rather than look at the life experience of trauma, that preceded the students' admission to nursing schools, and offer referrals for remediation, students quickly learn to leave their issues at the door of the class room or hide their experiences. In addition to not acknowledging their own traumas, students are instructed to not fail in the screening for these issues in others, because they are their patients. The routine exposure to the suffering of others has a cost for the providers (Bride, 2007). Armed with research on post traumatic growth, resilience and epigenetics, faculty must courageously wade into the waters of past adverse childhood experiences, for themselves first and then for those they inspire. Trauma informed care must be demonstrated with students, who up until now, may have felt a need to only whisper of their own abuse or homelessness. Rather than fearing the repercussions of opening up to the authentic lives of students, faculty must be conduits for compassion and role models of self-forgiveness. Faculty must reflect an honoring of the spiritual and enable hope and faith, claiming it as our legacy (Watson & Smith, 2002).

Implication for Nursing Practice

Predicted nursing shortages, nationally and statewide, have raised concern for providing for the health needs of the vulnerable and previously unable to access care (Boyle, 2011). Nurses are on the front line of the demand. Sustaining experienced nurses is as important as recruiting new ones. Past queries, to understand why nurses leave nursing, focused on terms of fatigue and burnout (Figley, 1995). The terms compassion fatigue and burnout have been challenged by nurses recently. Nurses have voiced an opinion that compassion is integral to the work of nursing, and therefore the use of the term compassion fatigue is seen as diminishing of the entire nursing experience (Sheppard, 2015).

If nurses are to continue to thrive in environments of caring they must be recipients of the same from the systems within which they work. Work, driven by patient satisfaction surveys, rather than holistic approaches that provide for: safe staffing, lunch breaks, and a respected role in an autonomous position; wear at the soul of the provider resulting in care saturation not compassion fatigue (Sheppard, 2015). Compassion satisfaction is the positive outcome for the nurse in the role of healer. Forgiveness ability has a role in positively impacting this outcome. Skills in practicing forgiveness of self may contribute to a safe culture in the work environment, as blame and self- reproach are replaced by transparency and problem solving. Rather than formulating official statements prohibiting complaints at the work site, administrators could solicit authenticity, as forgiveness of situations is encouraged and modeled by those in power as well.

Implications for Health Policy

Politically, there have been calls for an understanding of the role of forgiveness on health outcomes after trauma, and as such, the very future of communities, cities, and countries are dependent on addressing issues of forgiveness (Tutu, 1999). The established links between forgiveness and physical and mental health in the forgiver, has encouraged the research of forgiveness in the less traditional and less historically spiritual disciplines. Psychology, genetics, philosophy, holistic healing and social justice all have something to gain in knowledge advancement in the understanding of this construct (Fehr, Gelfand, & Nag, 2010; Worthington, 2005). As nurses have advocated for those in need historically, they must continue to stand firm on the role of spirituality, as a component of themselves and all they serve. Forgiveness may provide the roadmap.

A shift in paradigms is called for as ACEs become routine parts of assessments and targeted interventions developed accordingly, without the stigma, shame or insurance penalties that many fear. The question is not whether to screen, but how to be prepared to do it compassionately. To do otherwise, is to pretend to not know the cost of unattended suffering and to perpetuate violence, addictions and early deaths from preventable sequalae of child abuse (Felitti, 1998). The science is here, needed now is the collective community will, for increasing capacity and handling complexities. Guidelines and protocols must be piloted and practiced and perhaps coerced with threats of loss of funding to clinic and hospitals that may balk about one more task, for the already stressed systems. Institutions are all too aware of the time required to handle the fallout from truthful answers, once they are spoken. This paradigm shift will involve all providers and agencies working in a coordinated manner to ensure that those, not inherently resilient,

are provided with environmental safety nets. To do otherwise is to assure our communities of a steady increasing flow of chronic illness and addictions.

Others may gain courage for disclosing past abuses following the lead of these nurses in this study. By refusing to be silent they have acted to destigmatize the experience of childhood adversity. These 255 accomplished nurses in a southern state, who despite multiple challenges and personal traumas, have proven themselves presently resilient and successful. As professionals they may be giving back in a way they may never have received. The wounded healers have more to teach, as the buffers are explored that allowed them to be more than a sum of their social determinants. Establishing patient centered medical homes can be the start of providing for the experiences that lead to positive epigenetic changes no matter where on the ACE score one starts.

Recommendations for Future Research

1. Further research is warranted to explore variables contributing to resilience in nurses and other populations after adverse childhood abuse.
2. Replication of this study with a geographically varied population would contribute to an understanding of the role of risk factors, culture and strengths in nurses and other populations.
3. Future studies should ensure all clinical specialties are sufficiently represented and appropriately captured; not requiring an "other" category for demographic information collection.
4. Future studies should explore the role of interventions to increase self forgiveness.
5. Qualitative studies are needed to understand the voice of participants in their healing and resiliency in order to gather the richness of lived experiences.

6. Research is required to determine the best practices for screening for and prevention of adverse childhood experiences.

Summary

The overarching purpose of this study was to examine the relationship between adverse childhood experiences, forgiveness and compassion satisfaction in nurses. In addition, the study sought to determine the impact of forgiveness, as a moderator on the relationship of adverse childhood experiences and compassion satisfaction. Lastly, this study explored which demographic characteristics served as predictors of forgiveness and compassion satisfaction in a select population of nurses.

Adverse childhood experiences were honestly portrayed by participants dedicated to the practice of nursing. The ACE category that participants fell into accounted for their forgiveness ability. Many were in school or had acquired advanced degrees, in their quest to maximize their impact as advocates and partners in health. All expressed experiencing compassion satisfaction from their role as nurse engaged with patients. Those married or educated at the AD/diploma level were the highest on the compassion satisfaction score. None fell into the low category for the experience of compassion satisfaction. Their forgiveness score impacted *compassion satisfaction* positively as *forgiveness of situation* accounted for and predicted *compassion satisfaction* in this study. As well, African Americans were significantly higher on *self- forgiveness* which, as a predictor accounted for *compassion satisfaction*. There is much to be learned from each other.

It is anticipated that the projected nursing shortage may have a toll on nurses. If nurses do not possess the ability to balance their lives and care for themselves with compassion, in the process of responding to these new demands the outcome may be

deleterious (Collins & Long, 2003). As new skills are required, and the pace of seeing patients increases, the physical workload will continue to mount (Gittell, 2009). The spiritual and psychological toll has yet to be determined. Nursing must take the lead in caring for our own with the same enthusiasm and determination with which our profession has approached each historical challenge for others.

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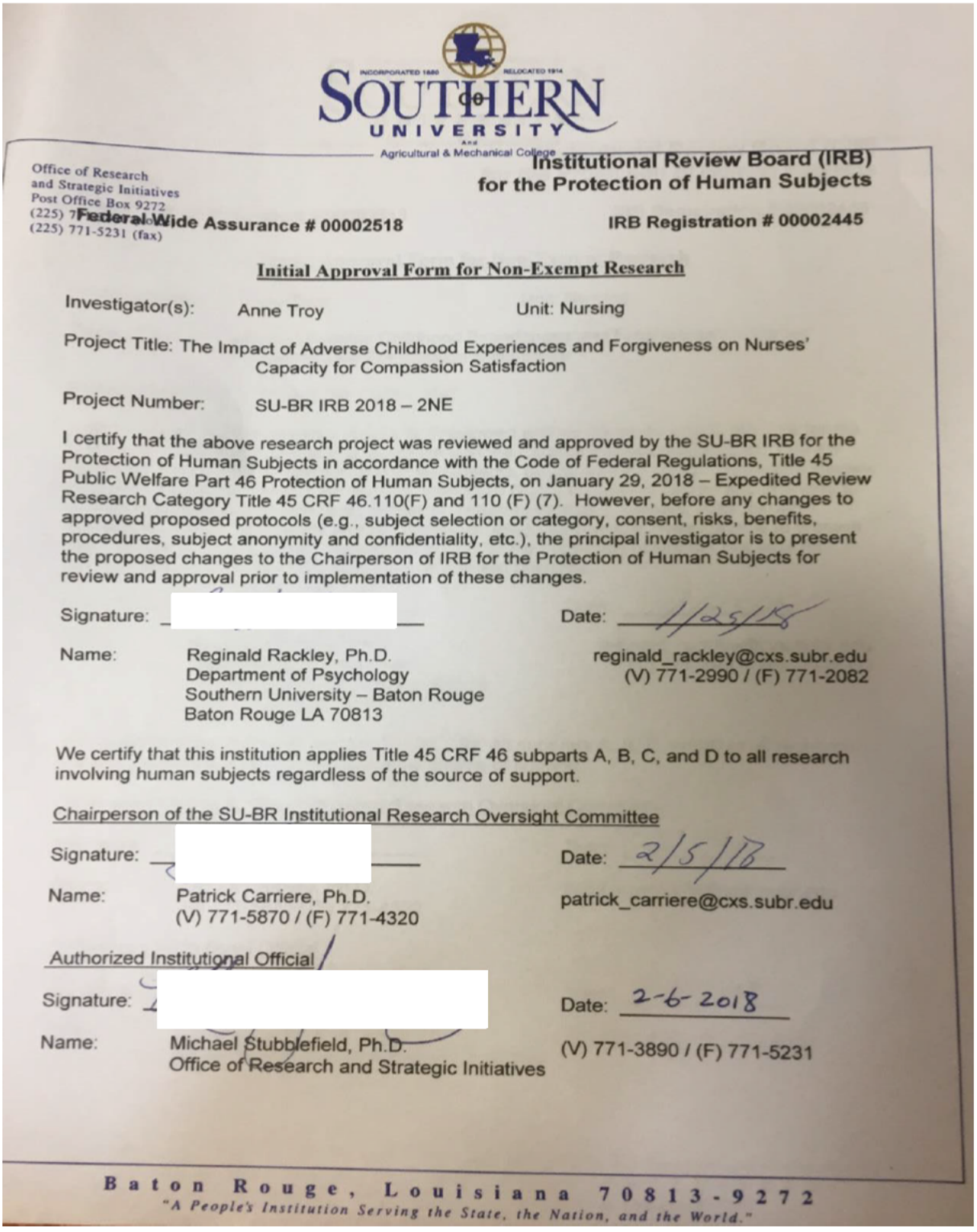
APPENDICES

APPENDIX A

APPROVAL FROM INSTITUTIONAL REVIEW BOARD



SOUTHERN UNIVERSITY
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Institutional Review Board (IRB)
for the Protection of Human Subjects

Federal Wide Assurance # 00002518

IRB Registration # 00002445

Initial Approval Form for Non-Exempt Research

Investigator(s): Anne Troy Unit: Nursing

Project Title: The Impact of Adverse Childhood Experiences and Forgiveness on Nurses' Capacity for Compassion Satisfaction

Project Number: SU-BR IRB 2018 – 2NE

I certify that the above research project was reviewed and approved by the SU-BR IRB for the Protection of Human Subjects in accordance with the Code of Federal Regulations, Title 45 Public Welfare Part 46 Protection of Human Subjects, on January 29, 2018 – Expedited Review Research Category Title 45 CRF 46.110(F) and 110 (F) (7). However, before any changes to approved proposed protocols (e.g., subject selection or category, consent, risks, benefits, procedures, subject anonymity and confidentiality, etc.), the principal investigator is to present the proposed changes to the Chairperson of IRB for the Protection of Human Subjects for review and approval prior to implementation of these changes.

Signature: _____ Date: 1/25/18

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We certify that this institution applies Title 45 CRF 46 subparts A, B, C, and D to all research involving human subjects regardless of the source of support.

Chairperson of the SU-BR Institutional Research Oversight Committee

Signature: _____ Date: 2/5/18

Name: Patrick Carriere, Ph.D.
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Signature: _____ Date: 2-6-2018

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APPENDIX B

RECRUITMENT LETTER TO NP DIRECTOR PARTICIPATION INFORMATION FORM

To Dr. Brown,

My Name is Anne Troy and I am a doctoral student interested in recruiting nurse practitioner students for my online survey to determine if there is a relationship between Adverse Childhood Experiences and Forgiveness and Compassion Satisfaction in nurses in this state. I will assure the students' anonymity with the use of Qualtrics. I have received IRB approval from the Institutional Review Board at SUBR. The length of time to complete the survey will be 10-15 minutes of classroom time. I would meet face to face with students to recruit them and provide resources for counseling to any that would require debriefing from the sensitive questions.

Purpose of the Study

The purpose of this research study will be to examine the effect of adverse childhood experiences (ACEs) on nurses' capacity for experiencing compassion satisfaction when exposed to work stressors and to explore the role of forgiveness in mitigating this impact. The role of forgiveness in mitigating this impact will be measured with a tool that differentiates a state of forgiveness from a trait of forgiveness. The intent will be to look at registered nurses throughout Louisiana in multiple specialties of practice.

Significance of the Study to Nursing

Predicted nursing shortages, nationally and statewide, have raised concerns for providing for the health needs of vulnerable and previously disenfranchised groups of people (Boyle, 2011). Recent comprehensive health care shifts have allowed for historical changes in access to care for patients as cost barricades have been diminished (Aday, 2001). Nurses are on the front line for the demand. The personal toll to the wellbeing of nurses may be great for those in the trenches if they do not possess the ability to balance their lives and care for themselves with compassion in the process of responding to these new demands (Collins & Long, 2003). As new skills are required, and the pace of seeing patients increases, the physical work load will continue to mount (Gittell, 2009). The spiritual and psychological toll has yet to be determined.

In addition, research driven changes in screening for victims of violence have been made to the routine assessments of all patients from clinics to schools to emergency rooms (Hornor, 2015). Despite this acknowledgment of the incidence and prevalence of abuse at a societal and personal level, attention to the significance of the personally experienced trauma of the practitioners has been avoided. A leave your personal troubles at the door mentality has traditionally been accepted in educational and clinical settings (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011).

Exposure to the suffering of patients may fall on the framework of untreated past trauma of the nurse, thus compounding the stress. Compassion fatigue or compassion satisfaction may be the outcome as determined by the past experiences of the nurse and the mediating abilities yet to be fully determined (Stamm, 2002). Those who have suffered from various traumas have been vocal in the role of forgiveness as a means to healing (Worthington, 2005). Politically, there have been calls for an understanding of the role of forgiveness on health outcomes after trauma, and as such, the very future of communities, cities, and countries are noted as dependent on addressing issues of forgiveness (Tutu, 1999). The established links between forgiveness and physical and mental health in the forgiver has encouraged the research of forgiveness in less traditional and historically spiritual disciplines as psychology, genetics, philosophy, holistic healing and social justice have all something to gain in knowledge advancement in the understanding of this construct (Fehr, Gelfand, & Nag, 2010; Worthington, 2005).

APPENDIX C

CONSENT FORM FOR PARTICIPANTS

1. **Who is eligible to participate in the study?**
   Participants that are eligible to participate in this study include Registered Nurses and Nurse Practitioners who are students or non-students who have worked as an RN for at least six months regardless of their work specialty. A convenience sample will be used to recruit 138 participants for this study. Participants must be 18 years of age and older.

2. **Who is ineligible to participate in the study?**
   Licensed Practical Nurses will be excluded from this study. Nurses who have worked less than six months as an RN will also be excluded.

3. **How were the subjects/participants selected to ensure equality and eliminate biases?**
   There will be 138 participants recruited to participate in this study. Inclusion criteria for this study will be Registered Nurses and Nurse Practitioners, both student and non-student. The age group will be those 18 years of age and older. Participants will be sought from diverse demographic and professional backgrounds. Individuals who will be excluded from this project are Licensed Practical Nurses and RNs working less than six months as a registered nurse. Recruitment for these participants will be on a voluntary basis conducted through email solicitation for non-students and face to face with students in a classroom setting.

4. **What will the subjects/participants do if they take part in the study?**
   Participants will be asked to complete a 38-item questionnaire via a link to *Qualtrics* an independent, secure, experience management company. These questions include ten items related to their past adverse childhood experiences, 18 items related to their present forgiveness tendency and a final ten items assessing for their ongoing experience of compassion satisfaction, due to their present work experience, as a nurse. In total the survey, in addition to seven demographic questions, takes 10-15 minutes to complete.

5. **What are the possible risks and discomforts for participating in the study?**
   There are no foreseeable risks with answering questions on this survey. Some participants may experience some mild discomfort and anxiety answering sensitive questions regarding past childhood adverse experiences.

6. **What are the possible benefits for participating in the study or that could occur from study results?**

Subjects agreeing to participate in this study will receive valuable information, as it relates to recent research on what constitutes ten of the most common causes of early trauma. All participants will be provided with local resources for debriefing or ongoing counseling, should they so choose. Participation in this study will assist with understanding of the role of forgiveness as a moderator or buffer to the stress of adverse childhood experiences. Forgiveness does not imply not holding someone accountable. Information may arise as to the role of forgiveness in acquiring and sustaining compassion in nurses who are faced daily with the vicarious suffering of patients.

7. **Are there alternative procedures that can be used to conduct the study? If subjects/participants do not want to take part in the study, are there other choices?**

There are no alternative procedures that can be used to conduct this study. There will be no penalty if subject does not want to participate in the study. Subjects have the choice at any time not to participate in the study and can withdraw (quit) without penalty.

8. **If subjects/participants have any questions or problems, whom can you call?**

Principal Investigator: Anne D. Troy
Southern University and A&M College
Graduate Nursing Student
200 Autumn Wind Lane
Mandeville, LA 70471
Phone:
Email Address:

Faculty Advisor: Dr. Sandra Brown, Director of DNP Program
Southern University Graduate School of Nursing
Baton Rouge, Louisiana 70813
Phone:
Email Address:

If you have questions or concerns about your rights as a research volunteer in this study or you want to report a research-related injury, contact Dr. Patrick Carriere, Ph.D., Chairperson, Institutional Research Oversight Committee, P. O. Box 9272, Southern University -Baton Rouge, Baton Rouge, LA 70813-1241; Voice 225-771-5290; Facsimile 225-771-5721; E-mail –

11. **What subject/participant information will be kept private?**

All information obtained from participants in this study will be strictly confidential. The researcher will not reveal the identity of the participants. All survey questionnaires will return to the researcher without identifying name or IP address. Names of participants will not be obtained and will not be used to cross-reference data. All records/files will be stored in a password-protected database on the researcher's computer.

12. Can subject/participant participation in the study end early?

Participants may withdraw from the study at any time without penalty. The principal investigator may terminate the participation of subjects/participants at any time. Participants can be terminated due to having bias towards the project. Participants' failure to complete survey questionnaires or complete study procedures could result in the data not being used in the study.

13. What charges will the subjects/participants have to pay?

None

14. What payment will the subjects/participants receive?

None

15. If the research involves greater than minimal risk, is medical treatment available for adverse experiences?

Not applicable

16. Does the research involve the collection and use of medical information?

No

17. By completion of the surveys and I am granting my permission to participate in the study.

APPENDIX D

COUNSELING RESOURCES ADVERSE CHILDHOOD EXPERIENCES SCREEN

If the above questions have caused you to think about things that you would like to talk to a counselor about, please call the number below to debrief from any distress and receive additional options as needed. Cope Line 24/7 504-269-2673/ or 1 (800)-749-2673 Free of charge / In Spanish also

APPENDIX E

COMPASSION SATISFACTION VERSION 5

Professional Quality of Life Scale (ProQOL)

Compassion Satisfaction and Compassion Fatigue
(ProQOL) Version 5 (2009)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some-questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the *last 30 days*.

1=Never	2=Rarely	3=Sometimes	4=Often	5=Very Often

_____ 1. I am happy.
_____ 2. I am preoccupied with more than one person I *[help]*.
_____ 3. I get satisfaction from being able to *[help]* people.
_____ 4. I feel connected to others.
_____ 5. I jump or am startled by unexpected sounds.
_____ 6. I feel invigorated after working with those I *[help]*.
_____ 7. I find it difficult to separate my personal life from my life as a *[helper]*.
_____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
_____ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.
_____ 10. I feel trapped by my job as a *[helper]*.
_____ 11. Because of my *[helping]*, I have felt "on edge" about various things.
_____ 12. I like my work as a *[helper]*.
_____ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.
_____ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
_____ 15. I have beliefs that sustain me.
_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.
_____ 17. I am the person I always wanted to be.
_____ 18. My work makes me feel satisfied.
_____ 19. I feel worn out because of my work as a *[helper]*.
_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.
_____ 21. I feel overwhelmed because my case [work] load seems endless.
_____ 22. I believe I can make a difference through my work.
_____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.
_____ 24. I am proud of what I can do to *[help]*.
_____ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.
_____ 26. I feel "bogged down" by the system.
_____ 27. I have thoughts that I am a "success" as a *[helper]*.
_____ 28. I can't recall important parts of my work with trauma victims.
_____ 29. I am a very caring person.
_____ 30. I am happy that I chose to do this work.

PERMISSION TO USE COMPASSION SATISFACTION SUBSCALE

Permission for Use of the ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.proqol.org

Accompanied by the email to you, this document grants you permission to use for your study or project

> ***The ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.ProQOL.org***

Prior to beginning your project and at the time of any publications, please verify that you are using the latest version by checking the website. All revisions are posted there. If you began project with an earlier version, please reference both to avoid confusion for readers of your work.

This permission covers non-profit, non-commercial uses and includes permission to reformat the questions into a version that is appropriate for your use. This may include computerizing the measure.

Please print the following reference or credit line in all documents that include results gathered from the use of the ProQOL.

Stamm, B. H. (2010). The ProQOL (*Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue*). Pocatello, ID: ProQOL.org. retrieved [date] www.proqol.org

Permission granted by
Beth Hudnall Stamm, PhD
Author, ProQOL
ProQOL.org
info@proqol.org

Help us help all of us. Please consider donating a copy of your raw data to the data bank. You can find more about the data bank and how you can donate at www.proqol.org and www.proqol.org/Donate_Data.html. Data donated to the ProQOL Data Bank allow us to advance the theory of compassion satisfaction and compassion fatigue and to improve and norm the measure itself.

APPENDIX F

Hello Anne,

This request you sent (below; which we will keep on file) and the document attached here together comprise your permission to use the ProQOL. Please consider donating your de-identified baseline data to the ProQOL office if possible, as this helps us maintain the measure.

I apologize for the delay in responding; I wanted to speak with our Director of Research about using just one scale (CS). He has approved this.

Please let me know if you have any questions,

Alyce

Alyce Eaton
Research Coordinator
Direct: +1.612.436.4896

Skype: alyce.eaton.cvt

The Center for Victims of Torture
2356 University Ave W., Suite 430 / St. Paul, MN 55114

Alyce Eaton
Research Coordinator
Direct: +1.612.436.4896

Skype: alyce.eaton.cvt

The Center for Victims of Torture
2356 University Ave W., Suite 430 / St. Paul, MN 55114

APPENDIX G

PERMISSION TO USE FORGIVENESS TOOL

Good morning Dr. Thompson, I am graduate student at Southern University A&M in Baton Rouge LA. I would like to use your trait forgiveness tool in my study with nurses. I will be exploring the trait of forgiveness and its relationship to nurses' ability to experience compassion satisfaction after vicarious exposure to the suffering of their patients. Thank you, Anne

Purpose of the Study

The purpose of this research study will be to examine the effect of adverse childhood experiences (ACEs) on nurses' capacity for experiencing compassion satisfaction when exposed to work stressors and to explore the role of forgiveness in mitigating this impact. The role of forgiveness in mitigating this impact will be measured with a tool that differentiates a state of forgiveness from a trait of forgiveness. The intent will be to look at registered nurses throughout Louisiana in multiple specialties of practice.

Significance of the Study to Nursing

Predicted nursing shortages, nationally and statewide, have raised concerns for providing for the health needs of vulnerable and previously disenfranchised groups of people (Boyle, 2011). Recent comprehensive health care shifts have allowed for historical changes in access to care for patients as cost barricades have been diminished (Aday, 2001). Nurses are on the front line for the demand. The personal toll to the wellbeing of nurses may be great for those in the trenches if they do not possess the ability to balance their lives and care for themselves with compassion in the process of responding to these new demands (Collins & Long, 2003). As new skills are required, and the pace of seeing patients increases, the physical work load will continue to mount (Gittell, 2009). The spiritual and psychological toll has yet to be determined.

In addition, research driven changes in screening for victims of violence have been made to the routine assessments of all patients from clinics to schools to emergency rooms (Hornor, 2015). Despite this acknowledgment of the incidence and prevalence of abuse at a societal and personal level, attention to the significance of the personally experienced trauma of the practitioners has been avoided. A leave your personal troubles at the door mentality has traditionally been accepted in educational and clinical settings (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011).

Exposure to the suffering of patients may fall on the framework of untreated past trauma of the nurse, thus compounding the stress. Compassion fatigue or compassion satisfaction may be the outcome as determined by the past experiences of the nurse and the mediating abilities yet to be fully determined (Stamm, 2002). Those who have suffered from various traumas have been vocal in the role of forgiveness as a means to healing (Worthington, 2005). Politically, there have been calls for an understanding of the role of forgiveness on health outcomes after trauma, and as such, the very future of communities, cities, and countries are noted as dependent on addressing issues of forgiveness (Tutu, 1999). The established links between forgiveness and physical and mental health in the forgiver has encouraged the research of forgiveness in less traditional and historically spiritual disciplines as psychology, genetics, philosophy, holistic healing and social justice have all something to gain in knowledge advancement in the understanding of this construct (Fehr, Gelfand, & Nag, 2010; Worthington, 2005).

Dear Ms. Troy,

You have permission to use the Heartland Forgiveness Scale for your research.

Regards,

Laura

--

Laura Y. Thompson, Ph.D.
www.heartlandforgiveness.com

APPENDIX H

HEARTLAND FORGIVENESS TOOL

Directions:

In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Think about how you typically respond to such negative events. Next to each of the following items write the number (from the 7-point scale below) that best describes how you typically respond to the type of negative situation described. There are no right or wrong answers. Please be as open as possible in your answers.

1. Although I feel badly at first when I mess up, over time I can give myself some slack
2. I hold grudges against myself for negative things I've done.
3. Learning from bad things that I've done helps me get over them.
4. It is really hard for me to accept myself once I've messed up.
5. With time I am understanding of myself for mistakes I've made.
6. I don't stop criticizing myself for negative things I've felt, thought, said, or done.
7. I continue to punish a person who has done something that I think is wrong.
8. With time I am understanding of others for the mistakes they've made.
9. I continue to be hard on others who have hurt me.
10. Although others have hurt me in the past, I have eventually been able to see them as good people.
11. If others mistreat me, I continue to think badly of them.
12. When someone disappoints me, I can eventually move past it.
13. When things go wrong for reasons that can't be controlled, I get stuck in negative thoughts about it.
14. With time I can be understanding of bad circumstances in my life.
15. If I am disappointed by uncontrollable circumstances in my life, I continue to think negatively about them.
16. I eventually make peace with bad situations in my life.
17. It's really hard for me to accept negative situations that aren't anybody's fault.
18. Eventually I let go of negative thoughts about bad circumstances that are beyond anyone's control.

HFS

Directions:
In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Think about how you **typically** respond to such negative events. Next to each of the following items write the number (from the 7-point scale below) that best describes how you **typically** respond to the type of negative situation described. There are no right or wrong answers. Please be as open as possible in your answers.

1	2	3	4	5	6	7
Almost Always False of Me		More Often False of Me		More Often True of Me		Almost Always True of Me

____ 1. Although I feel badly at first when I mess up, over time I can give myself some slack.

____ 2. I hold grudges against myself for negative things I've done.

____ 3. Learning from bad things that I've done helps me get over them.

____ 4. It is really hard for me to accept myself once I've messed up.

____ 5. With time I am understanding of myself for mistakes I've made.

____ 6. I don't stop criticizing myself for negative things I've felt, thought, said, or done.

____ 7. I continue to punish a person who has done something that I think is wrong.

____ 8. With time I am understanding of others for the mistakes they've made.

____ 9. I continue to be hard on others who have hurt me.

____ 10. Although others have hurt me in the past, I have eventually been able to see them as good people.

____ 11. If others mistreat me, I continue to think badly of them.

____ 12. When someone disappoints me, I can eventually move past it.

____ 13. When things go wrong for reasons that can't be controlled, I get stuck in negative thoughts about it.

____ 14. With time I can be understanding of bad circumstances in my life.

____ 15. If I am disappointed by uncontrollable circumstances in my life, I continue to think negatively about them.

____ 16. I eventually make peace with bad situations in my life.

____ 17. It's really hard for me to accept negative situations that aren't anybody's fault.

____ 18. Eventually I let go of negative thoughts about bad circumstances that are beyond anyone's control.

APPENDIX I

ADVERSE CHILDHOOD EXPERIENCES TOOL

Adverse Childhood Experience (ACE) Questionnaire Finding your ACE Score

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household often … Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt? Yes, No If yes enter 1 _____
2. Did a parent or other adult in the household often … Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured? Yes, No If yes enter 1 _____
3. Did an adult or person at least 5 years older than you ever… Touch or fondle you or have you touch their body in a sexual way? or Try to or actually have oral, anal, or vaginal sex with you? Yes, No If yes enter 1 _____
4. Did you often feel that … No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other? Yes, No If yes enter 1 _____
5. Did you often feel that … You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it? Yes, No If yes enter 1 _____
6. Were your parents ever separated or divorced? Yes, No If yes enter 1 _____
7. Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her? or Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife? Yes No If yes enter 1 _____
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? Yes, No If yes enter 1 _____
9. Was a household member depressed or mentally ill or did a household member attempt suicide? Yes, No If yes enter 1 _____
10. Did a household member go to prison? Yes, No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score

APPENDIX J

DEMOGRAPHIC QUESTIONNAIRE

1. Years in age (Round to whole number)
2. Years working in nursing
3. Specialty area of interest for majority of work hours
4. Race/ethnicity
5. Gender
6. Educational status
7. Marital Status

Marital Status: Single, Married, Divorced, Widowed/ Widower, Other

Race: African American, Asian, Latino, Caucasian

Specialties: Neonatal, Pediatrics, Maternal Child, Psych/Mental Health, Forensics, Medical/Surgical, Geriatrics, Acute Care/ICU, OR/PACU, ER, Adult Family, Home Health, Other

Educational Status: Diploma, Associate Degree, master's in nursing, Doctorate in Nursing, Doctorate in other field

APPENDIX K

RECRUITMENT LETTER TO NURSING CHAPTER PRESIDENT

My name is Anne Troy and I am presently a doctoral Student at Southern University A&M and I would like to request time at your next board meeting to discussion my research and need for nurse participants. I have IRB approval and participants will be protected in their anonymity by use of deidentifying survey administered through the software of Qualtrics. Below is the purpose of my study. If approved I would like to send a link out through your list serve as the criteria for participation is currently registered as a nurse and having at least 6 months experience.

Purpose of the Study

The purpose of this research study will be to examine the effect of adverse childhood experiences (ACEs) on nurses' capacity for experiencing compassion satisfaction when exposed to work stressors and to explore the role of forgiveness in mitigating this impact. The role of forgiveness in mitigating this impact will be measured with a tool that differentiates a state of forgiveness from a trait of forgiveness. The intent will be to look at registered nurses throughout Louisiana in multiple specialties of practice.

Significance of the Study to Nursing

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In addition, research driven changes in screening for victims of violence have been made to the routine assessments of all patients from clinics to schools to emergency rooms (Hornor, 2015). Despite this acknowledgment of the incidence and prevalence of abuse at a societal and personal level, attention to the significance of the personally experienced trauma of the practitioners has been avoided. A leave your personal troubles at the door mentality has traditionally been accepted in educational and clinical settings (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011).

I look forward to working with you,
Sincerely, Anne Troy BSN
, MN, APRN, FNP-BC

VITA

NAME Anne Dolores Troy, PhD, APRN, FNP-BC
Forensic Nurse Practitioner
Associate Professor of Nursing

MAILING ADDRESS 200 Henry Clay Avenue
New Orleans, LA 70118

TELEPHONE

LICENSURE, CREDENTIALING, AND/OR CERTIFICATION

Date

2018	Defense of Research March 26, 2018
2017	Doctoral Candidate
2010	Acquired Prescriptive Authority State of LA
1999	Family Nurse Practitioner Certification, American National Board of Nurses Certification (ANCC) FNP-BC
1998	En-Care Certified in Preventing Alcohol Related Deaths
1996	Advanced Cardiac Life Support Certified
1996	Certified Instructor, Self-Breast Examination
1989	CPR Instructor – School and Parents Groups, American Heart Association
1982- Present	Registered Nurse – Louisiana
1980 – 1983	Registered Nurse – Texas
1978 – 1980	Registered Nurse – New Jersey

PROFESSIONAL EDUCATION AND TRAINING

Date	**Institution**	
9/13-5/18	Full time PhD	Southern University A&M BR
1999	LSUHSC Family Nurse Practitioner	Masters in Family Practice
1993	Louisiana State University Medical Center New Orleans, Louisiana	Masters in Mental Health
74-78	Rutgers University New Jersey	Bachelor of Science in Nursing

PROFESSIONAL ORGANIZATIONS

Sigma Theta Tau International Honor Society for Nurses

International Association of Forensic Nurses (IAFN)

American Academy of Nurse Practitioners (AANP)

American Association of Nurses (ANA)

Louisiana State Nurses Association (LSNA)

American Psychiatric Nurses Association (APNA)

STATE, NATIONAL AND INTERNATIONAL PRESENTATIONS

Date	
10/18	Sigma Theta Tau Presenter on The Impact of Adverse Childhood Experiences on Forgiveness and Compassion Satisfaction and Louisiana Nurses
10/18	LSNA state of LA presentation on Trafficking
5/17	Psychiatric Nursing Conference Las Vegas Plenary Speaker and two breakout sessions on Forensic Nursing and Compassion through the Historical lens of Mental Health Nursing.
3/18	Deep South Chapter Academy of Medical Surgical Nurses Manner, Mechanism and cause of Death: A look at Forensic Nursing
12/17	Proposal Defense Southern University A&M
10/17	Co-Presenter at International Conference of Forensic Nurses Toronto Canada- Gender Based Violence after Natural Disasters
10/16	Prevention and Assessment of Sexual Abuse- Nursing student seniors- Charity School of Nursing NOLA
5/16	Two National Lectures: Contemporary Forums Plenary Presentation on Forgiveness and Adverse Childhood Experiences in Las Vegas Nevada for Providers in Psychiatry
11/15	Plenary presentation Contemporary Forums in New Orleans "Sustaining Compassion and Forgiveness" Critical Care Pediatric Conference New Orleans
11/15	Breakout Presenter "Conundrums and Colombo: Speaking with Parents when Abuse is Suspected" Critical Care Pediatric Conference Contemporary Forums
5/15	St Elizabeth Hospital Gonzales LA Women' Health Luncheon Keynote Speaker "Love in a Time of Violence"

10/14	Xavier University Sororities/Fraternities: Sexual Abuse Prevention
9/14	LSUHSC Student Nurses Presenter New Orleans LA
4/14	Guest Speaker Southern University School of Nursing Senior Nursing Students Baton Rouge Sexual Abuse Prevention
4/14	Full day Workshop co presenter National Conference Las Vegas Nevada Contemporary Forums Psychiatric Conference 8 hours Sexual Abuse Prevention
4/14	State School Nurses Convention Plenary Speaker New Orleans LA
1/14	Panel Participant for ER UPDATE Children's Hospital "Sexual Abuse Tips for Examining Children"
11/13	Holy Cross School of Nursing -guest speaker "Forensic Nursing"
11/13	Guest Speaker Tulane University Preventing Sexual Abuse
11/13	Health education at Grace King High School 6 hours "Preventing Sexual Abuse"
11/13	Keynote Chappell High School sophomore retreat, New Orleans
10/13	Presenter Annual School Nurses In-service Jefferson Parish Ochsner Hospital, Sexual Abuse Update
10/13	21st Annual Conference of Forensic Nurses 90 minute co-presenter on Contemporary Issues in Cultural Desensitization to Violence, California
8/13	Presenter Xavier University resident advisor In-service: Sexual Abuse Prevention New Orleans La
5/13	Presenter Jefferson Parish Special Ed Teachers and Social Workers "Teens Not Gone Wild"
4/13	Tulane University Presentation to Future Physicians "Preventing Sexual Abuse" Boggs Center 1.5 hour lecture
4/13	LA State School Nurses Convention Plenary Presenter in Opelousas La. (225 attendees)
2013	Presenter "Target Hardening Communities against Sexual Abuse" Contemporary Forums Psychiatric Nursing National Conference NOLA Plenary and breakout sessions (300 attendees)

2013	Teens Not Gone Wild Presented to regional St. Tammany School Nurses Slidell LA 3 hours
2013	Psychotropic drugs and Mental Health Assessment for Family Justice Center NOLA social workers and counselors 3 hour Presentation to social workers and counselors
2012	"Fifty Shades of Ride or Die" a look at cultural distractions in a time of violence: Xavier University Sponsored by Delta Sigma Theta Sorority and the 100 Collegiate Black Men Presenter 1.5 hours
2012	Presenter Jefferson Parish Coroner's Office CARE Session "TNGW" 3 hours presentation to MD's, attorneys, counselors and advocates
2012	"It is Normal to be Normal" International Forensic Nurse Conference in Puerto Rico co presenter at IAFN
2012	"School Nurses lighting the Way to Academic Success" Natchitoches Events Center 43rd Annual Professional Growth Seminar Plenary Presenter
2012	"Building a Hedge of protection Around Our children: A United Response" Nicholls State University Thibodaux LA Presenter 7-hour conference
2012	Sociology Club Guest Speaker Nicholls University Le Bijou Theater
2011	Plenary Presenter LAFASA "From 'Teen Mom' to 'Jersey Shores": The Culture of Youth" State Convention Baton Rouge
2011	CSI for the Lay Person: Manner, Mechanism and Cause of Death Audrey Hepburn CARE Center, New Orleans, LA - Presenter
	LSU Trauma Summer Program Teens Not Gone Wild Charity Hospital New Orleans, LA – 2-day Presenter
	Nichols School of Nursing Continuing Education Target Hardening Children against Sexual Assault – Presenter 3 hours
	LSU School of Nursing Summer Camp Manner, Mechanism and Cause of Death – Presenter
2010	co Presenter LAFASA Conference "Pediatric trace evidence Collection: The Forensic Realities of Child Sexual Abuse" Baton Rouge LA

2010	Resident Education Day: Communication tools for OB/GYN Residents Thomas Jefferson University Philadelphia PA "Communicating with Adolescents – Teens Not Gone Wild" plenary Keynote
2010	Presentations at Wellness Center and Hodgson High School Delaware State and throughout Pennsylvania Teens Not Gone Wild- An Advocates Guide for Assisting Youth to Develop Healthy Sexual Boundaries at Alliance for Adolescent Pregnancy Prevention Hodgson Vo- Tech High School- 3 presentations Presenter to Preventive Medicine and Rehabilitation Urban promise Street Leaders Dinner Overbrook High school students Lankenau Hospital Community Teens
2010	Research Day Presenter Mt. Royal University Canada Research Day "Teens Not Gone Wild" and facilitator dating violence seminar 2 presentations Faculty and Students
2010	Wellspring alliance for Families Monroe LA Training for North Louisiana professionals and parents and teens Teens Not Gone Wild and Domestic Abuse "What's Love Got to do With It?" Domestic Violence and Sexual Assault Conference, 3 Presentations
2010	AWHONN Fall Conference Current Hot topics in Women's Health State Convention Lafayette "Update on Teens Not gone wild" Presenter
2010	Sexual Assault Victims Advocate Training LSU Baton Rouge LA Hate the Game – help the Player! Presenter
2010	LAFASA Sexual Assault Update Annual Conference Co- presenter on CARE of Pediatric Victim of Assault Baton Rouge LA
2010	Catholic Charities 4th Annual Awareness In-Service New Orleans "Hate the Game – Love the Player"
2010	National Catholic Schools Conference Professional Development Day New Orleans Mark Morial Convention Center "TNGW" 2 presentations "Teens NOT gone Wild"

2009	DV Training presenter Richardson Medical Center Rayville La; Morehouse General Hospital Bastrop LA; Franklinton Parish Hospital Winnsboro LA
2009	TV show "Straight Talk" video for on air viewing for school safety and Discipline with Carol Mancuso and Jefferson Parish School system
2009	POST TRAUMATIC PREVENTION INTERVENTIONS LPHI Partnership Trauma to Triumph with Schools, Community and University Partners 7 total programs co presented with LSU Nursing faculty New Orleans July; Lafayette, LA July; Red Cross New Orleans August; Houma LA August; Lafayette august; LSUHSC November (filmed)
2009	NPWH (Nurse Practitioner in Women's Health) Workshop Presenter Keynote: Teens Not Gone Wild – 4 hour workshop Rhode Island
2009	Family Violence Prevention Fund National Conference on Health and Domestic Violence in New Orleans "Teens Not Gone Wild"
2009	Jefferson High Schools "Teens NOT Gone Wild" Carver, Cabrini, East Jefferson High Schools, Science and Math and Ehret and St Amant High Schools
2009	American Business Women's Association Quelles Nouvelles chapter Scholarship Awards Dinner Guest Speaker
2009	Teen Pregnancy and Prevention Partnership Conference St. Louis MO Presenter
2008	LAFASA Co presenter "Target hardening your kids through their Childhood: How to Teach Sexual Abuse Prevention Tips to Parents" Baton Rouge LA
2008	NPWH (Nurse Practitioner in Women's Health) National Conference Seattle Washington Keynote: Teens Not Gone Wild
2008	"Forensics a Tool to End Violence" 2 Day Community Conference

Ochsner Foundation Hospital and LSUHSC
New Orleans LA
Manner, Mechanism and Cause of Death
Presenter and Facilitator and Developer of Conference

2008 LSU Summer Faculty Program
"Hate the Game Help the Player"
Baton Rouge LA

2008 Statewide Sane Workshop
Program Presenter "Changing the Lens for youth 'Gone wild': the call for primary prevention in Forensic nursing
MCL Hospital NOLA

2008 Sacred Heart Academy
High School Seniors
Teens Not Gone Wild

2008 Neonatal Practice Update
Newborn Jazz Conference-Presenter
Concurrent session-Baton Rouge, LA
"What's Love Got to Do With it?
Everything if abuse is the problem!"

2008 Statewide Sexual Assault Conference
Springfield, Illinois
General Session
"Teens Not Gone Wild"

2008 Sioux Lookout
Ontario, Canada
"Celebrate the Women in Your Life"
Keynote Speaker at Community Dinner
Presenter at area high school to seniors
"Teens Not Gone Wild"

2008 Teens Not Gone wild
Saint Luke's Medical Center
Boise, Idaho
Two sessions
Parenting Class in evening
Sexual Assault provider's half day workshop

2008 Nicholls School of Nursing
Thibodaux La
"Teens Not Gone Wild"

2008 St Martins Parents Association
Metairie LA
Parenting Teens Not Gone Wild

2008 St Mary's Academy
New Orleans, LA
"Teens Not Gone Wild"

2008 Contemporary Forums Psychiatric Conference
Plenary and Break out presentations
Orlando, Florida
"Teens Not Gone Wild"
"Hate the Game Not the Play"

2008 Contemporary Forums Psychiatric Conference
Plenary and break out Presentations
Las Vegas Nevada
"Teens Not Gone Wild"
"Hate the Game –Not the Player"

2008 Sexual assault Awareness Workshop
"Hate the Game- Help the Play"
Catholic Charities, New Orleans LA

2008 Jesuit High School
New Orleans, LA
"Teens Not Gone Wild"

2008 Archbishop Chappell
Metairie, LA
"Teens Not Gone wild"

2008 Mt Carmel Academy, Graduating Seniors
New Orleans, LA
"Teens Not Gone wild"

2008 "Manner Mechanism and Cause of Death"
Legal nurse consulting at LSUHSC- Presenter

2008 Violence across the Lifespan: Its Everyone's Business
Regional Forensic Council
Cincinnati, Ohio
"Teens Not Gone Wild"

2008 False River Academy

	New Roads LA "Teens Not Gone Wild"
2008	Catholic High School New Roads LA "Teens Not Gone Wild"
2008-Present	St Martin Episcopal Metairie, LA Teens Not Gone Wild
2008	State Sexual Assault Prevention Anchorage, Alaska "Teens Not Gone Wild"
2008	Illinois State sexual assault Prevention Day workshop Presenter- 6 hours
2008	"Forensic Exam and Sexual Abuse Nurse Examiners" for Wellness Education Department LSU Baton Rouge
2008	"Hate the Game Help the Playa" For Wellness Education Department LSU Baton Rouge
2007	Our Lady of the Lake Hospital Baton Rouge, LA Continuing Education Series "Teens Not Gone Wild"
2007	State Student Nurses Convention Presenter-Plenary "Teens Not Gone Wild" New Orleans, LA
2007	LAFASA State Conference-Presenter Baton Rouge LA "Hate the Game Not the Player"
2007	Tulane University Greek Night-Presenter New Orleans, LA "Teens Not Gone Wild"
2007	International Association of Forensic Nurses-Presenter "Teens Not Gone Wild" Salt Lake City, Utah Scientific Symposium- Breakout Session

2007	Louisiana Foundation against Sexual Assault-Presenter "Hate the Game Not the Player" State Conference for Law Enforcement, Advocates and Social Workers
2007	HCET Sexual Assault Prevention National Teleconference National Speaker, Wisconsin, Illinois, and Michigan "Teens Not Gone Wild"
2007	Counseling Teens to Prevent Sexual Coercion Title X Encouraging a "Teens Not Gone Wild Mentality" December 2006 – Bloomington, IL May 2007 – Cincinnati, OH; May 23rd – Milwaukee, WI May 2007 – Indianapolis, IN; May 24th – Minneapolis, MN June 4th – Detroit, MI; June 6th – Cleveland, OH
2007	"Jazzing it Up with Merlot" 7th Annual International Conference New Orleans, LA Poster Session: "Hands on Rebuilding Health in New Orleans Communities' Students Recording Health as They Make It"
2007	"Hypertension" in African American Community-Presenter to Fraternity brothers of Xavier University Xi Sigma Chapter of Omega Psi Phi Fraternity New Orleans, LA
2007	Pearl River Community College "Forensic Nursing" Presented to Nursing Students Pearl River, Mississippi
2007	Nicholls State University "Teens Not Gone Wild,"-Undergraduate nursing students
2007	Spring Update for Advanced Practice Nurses "Teens and Sexual Coercion" and "Forensic Nursing" HCET Indianapolis, IN
2007	Association of Women's Health Obstetrics and neonatal Nurses (AWHONN) Baton Rouge Chapter at Women's Hospital "TNGW"
2006	31st Annual Creative Teaching for Nursing Educators,

	National Conference, Workshop at University of Memphis "Ole Mexicano: An Integrative Tool for Teaching Cultural Sensitivity and Global Health Issues"
2006	Math and Science School of New Orleans – 9th graders "Teens Not Gone Wild" Newman School Counselors Country Day High School Counselors St. George Episcopal – 7th & 8th graders and parents Sacred Heart Academy – 7th & 8th graders and seniors Archbishop Chappell and Brother Martin High Schools – senior students
2006	Louisiana Foundation against Sexual Assault "Teens Not Gone Wild" Baton Rouge, LA State Conference- Presenter
2006	"Back to the Future: Teens Not Gone Wild" AWHONN, Ochsner Hospital New Orleans, LA State Conference for Advanced Practice Nurses
2006	National Teleconference – Title X Counseling Teens to Resist Sexual Coercion Title X, Organized Through Region V Wisconsin "Teens Not Gone Wild"
2006	Louisiana State Nurses Association – Statewide Conference Carnival Cruise – "Cast Off for Forensics; Forensic Nursing" Keynote Speaker
2006	Louisiana Public Health Association, Keynote Speaker Title X Family Planning: "Adolescent Health and Sexual Coercion Prevention" Baton Rouge, LA
2006	HCET – Ann Arbor, Michigan Annual Family Planning Update: "Recruiting & Serving Male Patients" and Keynote Speaker "Teens Not Gone Wild"
	"Back to the Future" AWHONN East Jefferson General hospital
Metairie	
2004 – 2005	Southern University at New Orleans, New Orleans, LA Freshman Orientation Assembly "Teens Not Gone Wild"

	Annual Presentation X 2 Years
2003 – 2005	YWCA Presenter Empowering Youth Leaders "Teens Not Gone Wild"
2004	American Healthcare Institute, National Association of School Nurses, "Teens Not Gone Wild: Workshop – Presenter New Orleans, LA Regional Symposia.
2004	Archbishop Blenk High School "Teens Not Gone Wild" School Assembly- Presenter
2004	Legal Nurse Consultant Guest Lecturer on Forensics at LSUHSC, Fall and Spring Semesters, every semester to present
2002	National Student Nurses Association "Medical Care in China" Lafayette, LA-Presenter
2000	AWHONN Conference Presenter "Empowering Women through the Lifespan" Baton Rouge, Louisiana-State Conference Continuing Education series
2000, 2001	Medical Center of Louisiana Continuing Education Series Presenter "Teen Violence" – Domestic Abuse Prevention Workshop for Health Professionals
2001	Student Nurses State Convention Presenter, "Tortillas to Chopsticks" Community Health Nursing, New Orleans, LA
1999	National Nurse Educators Workshop, "Innovative Community Teaching," Poster Presentation. Orlando, Florida. "Clowning for Safety" National Convention.
1998	Stop the Violence! Increasing Nurses Assessment and Intervention Skills For Victims of Abuse and Neglect Southeastern Louisiana University – Baton Rouge Campus Baton Rouge, LA-Presenter
1997	Master's Program, LSUHSC, Nurse Practitioner Program Guest Speaker, "Family Violence Prevention," and "Eating Disorders"
1997	Brown Bag Lunch Series for Faculty, Louisiana State University Medical Center, "Eating Disorders"

1997	"Substance Abuse and Dating Violence Prevention," Marion Central High School. Presentation for High School Students and Faculty	
Summer 1997, 1998	Clowning for Safety Programs 1. St. Pius X Summer Camp 2. Seven Oaks Academy 3. St. John the Baptist Day Care Center 4. Pediatric Nursing Board 5. ICU Nurse – Touro Hospital Workshop 6. LSUHSC Master's Program 7. Fall 1998 Preschool Program 8. Alumni Association, LSUHSC 9. St. Mary's Academy	Presenter/ Trainer – topics included: Fire, Safety, Smoking, and Seatbelt use.
1996	DePaul Hospital Continuing Education Series, "Violence in the Workplace." Continuing Education Series for Hospital Staff	
1996	Poster Presentation, 4010th USAH Annual Seminar Fall, "Survey of Tobacco Use: Middle and High School Students."	
1996	Pediatric Nursing Convention Co-Presenter, "Survey of Tobacco Use: Middle and High School Students," A Teaching Research Tool. National Convention, Fort Worth, Texas.	
1996	"Violence in the Workplace," Jena, Louisiana Workshop for Professionals	
1995	Tulane University Workshop Intergenerational Violence, Presentation to Psychiatric Nursing Staff, "Clinical and Community Issues."	
1995	"Community Health," Workshop for Graduate Students - Presenter, Louisiana State University Medical Center, Workshop Facilitator	
1995	State Nurses Association, "Self-esteem, Perceived Benefits, and Perceived Barriers to Health Promoting Behaviors in Adolescents." Poster Presentation, Baton Rouge, LA	
1995	"Don't Get Even, Get Smart," Mandeville, Louisiana. LSUHSC Continuing Education Series	
1994	Human Sexuality Series Guest Speaker, University of New Orleans, "Spouse Abuse," New Orleans, Louisiana	
1993	Our Lady of Holy Cross College BSN Nursing Students Guest Speaker, "Family Violence," New Orleans, Louisiana	

ACADEMIC CLINICAL EXPERIENCE

Date	Agency/Institution	Position
2017	Associate Professor of Nursing University of Holy Cross	
2016-17	Preceptor for LSU students and Southern University A&M	
2015-Present	Preceptor for LSU, Holy Cross and Southern Students	
2014	Southern University BSN	Faculty Preceptor
2014	Preceptor LSUHSC and Holy Cross BSN Nursing Students	Faculty Preceptor
2013	Preceptor Legal Nurse Consultant Student LSUHSC	
2013	Preceptor Holy Cross Nursing Student	FNP
2011-present	Preceptor University of South Alabama NP students	FNP
2010-Present	Preceptor LSU and Tulane medical students/residents CARE	FNP
2000 – 2010	CARE Faculty–Accelerated Nursing Program	Lecture & Clinical
1999 - 2010	Louisiana State University Medical Center Bachelor of Science in Nursing Program New Orleans, Louisiana Community Health – N3357 & N4357 Course Coordinator 2000 – 2001 Responsible for Clinical and Theory At junior and senior level.	Assistant Professor of Clinical Nursing Psychiatry/Community Forensics
1999 – 2010	Louisiana State University Medical Center Bachelor of Science in Nursing Program New Orleans, Louisiana Forensic Nursing – N4368 Course Coordinator - Nursing Elective	Assistant Professor Clinical nursing Physical Assessment Foundations
1997	Louisiana State University Medical Center New Orleans, Louisiana Transition Corse LPN to RN	LPN Course Coordinator

1993 – 1999	Louisiana State University Medical Center Associate of Science in Nursing Program Medical/Surgical New Orleans, Louisiana Foundations, Medical Surgical, Psychiatry	Instructor

PROFESSIONAL CLINICAL WORK EXPERIENCE

Date	**Agency/Institution**	
2017	Associate Professor of Nursing	Holy Cross University
2010- Present	Care Center Children's Hospital	Forensic Pediatric NP
2010	Audrey Hepburn CARE Center 500 clinical hours	Pediatric Forensic NP
1993-2010	Faculty LSU Health and Sciences	Assistant Professor of Nursing
2000 – 2003	Daughters of Charity Health Center Women's Primary Care	Nurse Practitioner
2000 – 2005	Multi-Service Center for the Homeless - Primary Care	Nurse Practitioner Faculty Practice
1999 – 2001	Voyage House Women's Shelter	Consultant – Nurse Practitioner
1999 – 2001	Medical Center of Louisiana – New Orleans	Sexual Abuse Nurse Examiner for Victims of Sexual Violence
1997 – 2004	Memorial Hospital New Orleans, Louisiana Weekend Special	Clinical Administrator House Supervisor
1989 – 2012	Ochsner Foundation Hospital Jefferson Parish, Louisiana	Charge Nurse Acute Psychiatry
1993 – 1995	Ochsner Foundation Hospital Kenner, Louisiana	Telephone Triage Family Practice Part-time
1988 – 1998	Tulane Medical Center New Orleans, Louisiana	Charge Nurse Acute Psychiatry

1987 – 1988	St. Charles General Hospital New Orleans, Louisiana	Charge Nurse Orthopedics
1985 – 1987	Methodist Hospital New Orleans, Louisiana	Assistant Head Nurse Orthopedics
1984 – 1985	Methodist Hospital New Orleans, Louisiana	NICU/Well Baby Staff Nurse
1982 – 1984	Methodist Hospital New Orleans, Louisiana	ICU/CCU Staff Nurse
1981 – 1982	Thailand Care Organization Cambodian Refugee Camp	Community Health Nursing Clinic Manager
1978 – 1980	Peace Corps El Rosario, Honduras	Community Health Clinic Manager
1978 – 1980	Santa Rosa Hospital Medical Center San Antonio, TX	ICU/CCU Staff RN

RESEARCH

2017	"Sexual Assault Prevention and Early Intervention in Natural Disasters" Co- investigator with Canadian researchers. IRB Approved and funded.
2010-13	Tulane and Louisiana State University Health Science Center and Children's Hospital Research: "Children's Reaction to Forensic Disclosure" Co- investigator on effect of interviewing environment on disclosure of abuse
2010	"Interdisciplinary Approach to Preparing Baccalaureate Students to Home Health Clinical Experience" in collaboration with LSUHSC Faculty
1999 – 2003	The Impact of a Comprehensive School Health Program in Achieving Health Behavior Changes with School Faculty, Staff and Students. Co-investigator. LSUHSC New Orleans LA
1994 – 2002	"Self-Esteem: Perceived Benefits and Perceived Barriers to Health Promoting Behaviors in Adolescents." IRB approved. Co-investigator Principal Investigator, Dr. Lafuente
1996	Survey of Tobacco Use: High School Students in

New Orleans, Louisiana. Co- investigator. Principal Investigator, Dr. Wirfs

PUBLICATIONS

Rick, S., Beyer., Carter., Troy, A. (2009) Trauma to Triumph, Post Traumatic Stress Disorder Parent Handbook, Louisiana Public Health Institute.

Rick, S., Beyer. Carter and Troy, A. (2009) Trauma to Triumph, Post Traumatic Stress Teacher Handbook, Louisiana Public Health Institute.

Troy, A. (2008). How forensic knowledge can help prevent future violence. *Pelican News.64* (1), 19.

Hartman, S., Janes, S. & Troy, A. (2008) Violence and nursing's response In Lundy and Janes (Eds) *Community Health Nursing: Caring for the Public's Health*. Sudbury, Mass: Jones and Bartlett

Troy, A., & Clements, P.T. (2007). Changing the lens for youth "gone wild" The call for primary prevention research by forensic nurses. *International Journal of Forensic Nursing, 3(3-4), 137-140.*

Troy, A. (2005). In their words. *The American Nurse. 37(6),7.*

Troy, A. (2003). "A Mile in Their Shoes." *The Times Picayune, the Gambit Weekly, 24* (7) (Editorial: February 11). New Orleans, LA.

Troy, A. (2001). "How We Treat Our Homeless." *The Times Picayune* (Editorial: March 28). New Orleans, LA: B6.

Troy, A. (1995). *I Heard the Children Asking About Alcoholism*. Children's Educational Series. New Orleans, LA: Louisiana State University Press.

Approval for Scholarly Dissemination

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