2009

The Impact of Spiritual Well-Being and Stressful Life Experiences on Traumatic Stress

Mariannette Bonet
Seton Hall University

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

Part of the Psychology Commons

Recommended Citation
Bonet, Mariannette, "The Impact of Spiritual Well-Being and Stressful Life Experiences on Traumatic Stress" (2009). Seton Hall University Dissertations and Theses (ETDs). 1600.
https://scholarship.shu.edu/dissertations/1600
THE IMPACT OF SPIRITUAL WELL-BEING AND STRESSFUL LIFE EXPERIENCES ON TRAUMATIC STRESS

BY

MARIANNETTE BONET

Dissertation Committee

Sandra S. Lee, Ph. D., Mentor
Olivia Lewis-Chang, Ph. D.
Pamela Foley, Ph. D.

Submitted in Partial Fulfillment of the Requirements for the Degree
Doctor of Philosophy
Seton Hall University

2009
APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, Mariannette Bonet, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ph.D. during this Spring Semester 2008.

DISSERTATION COMMITTEE
(please sign and date beside your name)

Mentor:
Dr. Sandra Lee

Committee Member:
Dr. Olivia Lewis-Chang

Committee Member:
Dr. Pamela Foley

Committee Member:

External Reader:

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

The Impact of Spiritual Well-Being and Stressful Life Experiences on Traumatic Stress

Health care professionals should be aware that levels of trauma-related symptoms could be present in individuals who are indirectly exposed to a trauma. A growing body of studies has begun to identify the link between traumatic life experiences and their sequelae (Silver et al., 2002). This study investigated the relationship between spirituality, exposure to stressful life events, and traumatic stress. The participants were graduate students from a private northeastern Catholic University.

Data were collected from 120 participants. The sample included 93 females and 27 males; their ages ranged from 21 to 66. Recruitment took place during class time with the cooperation of the instructors. Participants read and signed consent forms in order to participate in the study. The participants had to fill out three scales. These were the Stressful Life Experiences Screen-Short Form, Spiritual Well-Being Scale (SLE-S) and the Trauma Symptom Checklist (TSC-40). The completion time for the three scales were approximately 20 minutes. Results revealed significant relationships. The Stressful Life Experiences (SLE) scores showed a significant positive correlation with total Trauma Symptom Checklist (TSC) scores, while Stressful Life Experiences scores greater than zero (SLE>0) demonstrated positive significant relationships with the TSC Anxiety, Depression, and Sleep Disturbance subscales and with the Trauma Symptom Checklist...
total scores. Hypotheses were tested and findings were discussed. Moreover, recommendations for future research were mentioned as well as limitations of the study.
ACKNOWLEDGEMENTS

I would like to thank the Seton Hall faculty for their guidance throughout the dissertation process. In addition, I would like to express my gratitude to my mentor, Dr. Sandra Lee and the other members of the dissertation committee, Dr. Pamela Foley and Dr. Olivia Lewis-Chang for their unconditional support throughout the entire process. Additionally, to Dr. R. Pannone for his assistance in the data analysis of this study. Moreover, to Ms. Barbara Ward who always was supportive of me in helping with the searching of books, and articles. To Dr. Mary Ruzicka who was there for me through the IRB approval process, thank you.

I would like to thank my proofreader, Dr. Carol Gernat for her support and efforts in proofreading the dissertation. To my parents, whom gave me life and without that I would not have had this wonderful experience. To my father, Jose M. Bonet who has always been a source of loving encouragement all the way to every academic endeavor that I have encountered. I am grateful for his example, and his confidence in me.

I acknowledge my entire family and friends. Whether it was endless amounts of child care, encouragement or a listening ear, I am blessed to have so many supportive people in my life. I love and appreciate you all. It would not have been possible to accomplish this long journey.
DEDICATION

I dedicate this document to my children Marlene and Michael Joseph. It is difficult to find the words to thank someone for being so many things in your life. Their humor, sacrifice, patience and endless support allow me to aspire to every goal that I have. The two of them are my every motivation and my heart and I love them more than words can express.
# TABLE OF CONTENTS

ABSTRACT .............................................................................................................. ii

ACKNOWLEDGEMENT ......................................................................................... iv

DEDICATION ........................................................................................................... v

LIST OF TABLES ..................................................................................................... ix

I INTRODUCTION .................................................................................................. 1

   The Harm of Trauma .......................................................................................... 2
   The Search for Meaning in Recovery .................................................................... 3
   Religion and Spirituality: Similarities and Differences ........................................... 4
   Religion and Spirituality in the United States Population ..................................... 6
   Religion, Spirituality and Health .......................................................................... 7
   Spiritual and Religious Coping ............................................................................. 8
   Spiritual Well-Being ............................................................................................. 9
   Background of the Problem ................................................................................ 10
   Spirituality and Traumatic Stress ....................................................................... 11
   Theoretical Rationale ......................................................................................... 12
   Definition of Terms ............................................................................................ 14
   Research Question ............................................................................................. 15
   Hypotheses ......................................................................................................... 16
   Summary ............................................................................................................ 16

II REVIEW OF LITERATURE ............................................................................... 18

   Spirituality and Health: Empirical Research ......................................................... 18
   Spirituality and Physical and Mental Health Domains ......................................... 21
   Physical Health .................................................................................................. 21
   Mental Health ..................................................................................................... 22
   Spirituality as a Means of Coping-General Considerations ................................ 24
   Stressful Life Experiences and Spirituality as a Coping Mechanism ................... 28
   Traumatic Stress and Spirituality ....................................................................... 30
   Summary ............................................................................................................ 33

III METHODOLOGY ............................................................................................. 35

   Instruments ....................................................................................................... 35
Spiritual Well Being Scale (SWBS) .................................................... 35
Stressful Life Experiences Screen-Short Form (SLES-S) ..................... 37
The Trauma Symptom Checklist (TSC) ............................................. 37
Procedures .................................................................................. 38
Planned Statistical Analysis ......................................................... 39

IV RESULTS .................................................................................. 42
Demographics and Descriptive Statistics of Study Variables ................ 42
Pearson Correlation Analysis .......................................................... 47
Internal Consistency ........................................................................ 50
Alpha Reliability ............................................................................. 50
Analyses of the Hypotheses .............................................................. 51
Hypothesis 1 .................................................................................. 51
Hypothesis 2 .................................................................................. 52
TSC Total Scores ............................................................................ 52
TSC Subscales ................................................................................ 53
TSC Dissociation ............................................................................. 53
TSC Anxiety .................................................................................... 54
TSC Depression ............................................................................... 54
TSC Sleep Disorders ........................................................................ 55
TSC Sexual Problems ....................................................................... 55
Hypothesis 3 .................................................................................. 55
Hierarchical Multiple Regression Analysis Results for Total TSC Scores ........................................................................ 56
Hierarchical Multiple Regression Analysis Results for Anxiety ........ 57
Hierarchical Multiple Regression Analysis Results for Depression .... 57
Hierarchical Multiple Regression Analysis Results for Sexual Abuse Trauma .......................................................... 58
Hierarchical Multiple Regression Analysis Results for Sleep Disorder ........................................................................ 59
Hierarchical Multiple Regression Analysis Results for Sexual Problems ........................................................................ 59
Summary ......................................................................................... 60

V DISCUSSION .............................................................................. 62
Hypotheses ..................................................................................... 63
Conclusions .................................................................................... 65
Hypothesis 1 .................................................................................. 65
Hypothesis 2 .................................................................................. 65
Additional perspective related to levels of spirituality ....................... 66
Hypothesis 3 .................................................................................. 67
Spirituality/religion impact over time .............................................. 69
Theoretical Implications of Research Findings ................................ 69
Clinical Implications for Practice and Training ............................... 71
Recommendations for Future Research .................................................. 73
Limitations of the Study ........................................................................ 75
Summary ................................................................................................. 75

References .............................................................................................. 77

Appendix A: Informed Consent Form ....................................................... 91
Appendix B: Demographic Data Form ....................................................... 96
Appendix C: Letter to the Professor ......................................................... 98
Appendix D: Letter of Solicitation ............................................................ 100
# LIST OF TABLES

1. Frequency Distribution of Ages of Participants ............................................. 42
2. Frequency Distribution of Participants' Race .............................................. 43
3. Frequency Distribution of Employment Status ............................................ 44
4. Frequency Distribution of Participants' Religion ........................................ 44
5. Frequency Distribution of Highest Degree Held ......................................... 45
6. Means and Standards Deviations of the Survey Instruments .......................... 46
7. Pearson Correlations among Study Variables ............................................. 49
8. Reliability Coefficients .................................................................................. 50
9. Multiple Regression Analysis for TSC Total Scores ..................................... 53
10. Multiple Regression Analysis for Depression .............................................. 54
11. Multiple Regression Analysis for TSC Sleep Disorders ............................... 55
12. Multiple Regression Analysis for TSC Sexual Problems ............................. 55
13. Hierarchical Multiple Regression Analysis for Total TSC Scores ................. 57
14. Hierarchical Multiple Regression Analysis for Depression ......................... 58
15. Hierarchical Multiple Regression Analysis for Sleep Disorder .................... 59
Chapter I

INTRODUCTION

On September 11, 2001, our nation was challenged with traumatic events never before witnessed. The terrorist attacks on the World Trade Center, Pentagon, and the plane crash in Pennsylvania exposed many Americans to traumatic stress. According to a large survey conducted by the New York Times in September 2001 about 25% of participants who had been exposed to trauma developed the hallmarks of traumatic stress in the course of their ordinary life experiences. Trauma-related symptoms could be present even in individuals who are indirectly exposed to trauma. A growing body of studies has begun to identify the link between traumatic life experiences and their sequelae (Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002). Thus, the study of traumatic stress and its impact has become even more important.

This chapter will present the following concepts that have been studied through the research literature. First, the harm of trauma is presented. Second, the search for meaning in recovery is examined. Third, the similarities and differences between religion and spirituality are described followed by religion and spirituality in the United States population. The relationship between religion, spirituality, and health, spiritual and religious coping, spiritual well-being, and spirituality and traumatic stress are explained. Finally, background of the problem, theoretical rationale, definition of terms, research question, hypotheses and summary are introduced as well.
The Harm of Trauma

According to Elliott (1977) individuals have experienced at least one serious traumatic event in their lives. Events can vary from childhood abuse to car accidents to death of a loved one (Wilson & Moran (1998). Individuals that have been exposed to trauma carry the experience of a psychological distress related to trauma (Pearlman, 1998). The trauma brings an important element such as fear. The conceptualization of trauma is increasingly centered on the fear invoked by trauma (Folette, Polusny, Bechtle & Naugle, 1996). Brett (1996) presented that individuals with biological and psychological vulnerabilities experience stressful life events. Stressful life events are unpredictable. They are part of historical events and are central elements in the traumatic stress field (McCann & Pearlmann, 1990; Van der Kolk, Mc. Farlane, & Weisaeth, 1996).

The study of traumatic stress was derived from historical events dated as far back as World Wars I & II. Survivors of the Nazi concentration camps, as well as veterans of the Vietnam War have been studied (Van der Kolk et al., 1996). In addition, survivors of natural disasters as well as other traumatic historical situations have been researched (Van der Kolk, et al., 1996). Recent studies have extended this line of research to the aftermath of sexual assault, childhood sexual abuse, physical abuse, the witnessing of domestic violence, and most recently, terrorism (Fagan, Galea, Ahern, Bonner, & Vlahov, 2002; Lee & Waters, 2003; Sprang, 2000; Van der Kolk, 1996; Whitehead & Whitehead, 1979).

According to Herman (1997), trauma survivors are individuals traumatized particularly by combat, political terror, rape, domestic violence, and concentration camps. Herman continued that they have commonalities, and they need to restore connections
between the public and private worlds, between individuals, and communities of men and women.

Herman's (1997) research indicated that after witnessing and experiencing traumatic events, the individual develops symptoms of traumatic stress. In addition, there is a recovery process for the survivor. The stages of recovery include establishing safety, reconstructing the trauma story, and restoring the connection between survivors and their community (Herman, 1997).

*The Search for Meaning in Recovery*

Van der Kolk et al. (1996) presented that the search for meaning is a critical aspect of traumatized individuals' efforts to master their helplessness and sense of vulnerability. Since patients cannot undo their past, giving it meaning is a central goal of therapy. It is important to deal with the existential issues evoked by the trauma, such as the role that victims feel they played in causing the trauma (Van der Kolk et al., 1996).

The personal meaning of traumatic experience for individuals is influenced by the social context in which it occurs (Miller, 1999). Victims and the significant people in their surroundings may have different and fluctuating assessments of both the reality of what has happened and of the extent of the victims' suffering. According to Herman (1997), assigning meaning to and accepting trauma are important means of recovering from trauma. Likewise, according to Miller (1999), spiritual and religious involvement is not only common but is often important in clients' lives and has been generally linked to positive health outcomes.
The search for meaning is also a component of spirituality and religiousness (Pargament, 1997). Pargament (1997) suggested that the key question for researchers is whether meaning is fundamentally religious or spiritual. From the substantive tradition of religious definition, the search for meaning becomes religious only when it involves some connection with the sacred. Trauma caused by natural disasters, accidents, and those of human origin can affect the spiritual domain (Wilson & Moran, 1998). Therefore, it may be posited that trauma survivors seek meaning through religion/spirituality, and this may have an impact on how trauma survivors experience traumatic stress.

Religion and Spirituality: Similarities and Differences

At this point, it makes sense to draw the distinctions between the terms religion and spirituality. Miller and Thoresen (2003) and Pargament (1997) expressed that spirituality and religion are complex concepts to define. Religion is an institutional phenomenon, though often centrally concerned with spirituality. Particular beliefs and practices, requirements of membership, and modes of social organization differentiate religions. The term religion, according to Thoresen and Harris (2002), is viewed as a societal phenomenon involving social institutions composed of members who abide by various beliefs and adhere to certain rules, rituals, covenants, and formal procedures. On the other hand, they viewed spirituality as referring to the individual’s personal experience, commonly seen as connected to some formal religion, but increasingly viewed as independent of any organized religion. Thus, spirituality is not categorical but continuous and multidimensional (Miller, 1999).
Larson, Swyers, and McCullough (1998) expressed that it is important to know the historical understandings of religion and spirituality in order to understand and establish a distinction between the two concepts. The word religion comes from the Latin root *religio*, which signifies a bond between humanity and some greater-than-human power. Wulff (1997) identified at least three historical designations of the term: (a) a supernatural power to which individuals must respond, (b) a feeling present in the individual who conceives such a power, and (c) the ritual acts carried out in respect of that power. In addition, Geertz (1973) portrayed religion as an attempt to conserve the fund of general human meaning, within which the individual interprets experiences and organizes conduct. The word spirituality is taken from the Latin root *spiritus* meaning breath of life.

Although religion and spirituality overlap, recent definitions of religion have become narrower and less inclusive. Concerning the relationship between spirituality and religion, we may make a number of points. First, Miller and Thoresen (2003) presented their view of spirituality as primarily relational: a transcendent relationship with that which is sacred in life or with something divine beyond the self. The concept itself is multidimensional and defies simple clear cut-boundaries. Second, others such as Levin (2001) and Oman and Thoresen (2002) expressed that spirituality shares constructs such as character, love, well-being, peace, and health. Third, Pargament (1997) contended that religion is the more inclusive concept with spirituality as its major focus. Pargament (1997) expressed that religion is a search for significance in ways related to the sacred. Therefore, it is a socially influenced perception of either some divine being or some sense
of ultimate reality or truth. Others contended that spirituality is the more inclusive term of which religion and religiousness may or may not be a part (Larson et al., 1998).

Religion and Spirituality in the United States Population

Gallup and Jones (2000) stated that Americans, for all their busyness and pursuit of affluence, claim to spend considerable time reflecting on their lives. A 1998 survey showed that nearly 7 out of 10 respondents said they had recently thought often about the basic meaning and purpose of their lives, an increase from 6 in 10 in 1985 (Gallup & Jones, 2000). More than half had thought repeatedly about their relationship to God.

Overall, the American population values religion and spirituality. For example Gallup and Jones (2000) reported that 96% of the American population believes in God or a universal spirit; 92% state a religious preference; 90% believe in heaven; 82% experience in a need for spiritual growth in their lives; 61% have absolute trust in God. In contrast, 24% say they are not seeking to grow in religious faith; 22% do not feel the need to experience spiritual growth; and 4% revealed no trust at all.

In addition, the erosion of religion's moorings in recent decades seems to have done little to dampen spirituality. In some ways it may have intensified it (Gallup & Jones, 2000). The percentage of Americans who completely agreed that prayer is an important part of their daily lives increased from 41% in 1987 to 53% in 1997, an increase of 12 percentage points. Those who completely agreed that they never doubt the existence of God rose 11 points in the same 10 years (Gallup & Jones, 2000). Similarly, Powell, Shanabi, and Thoresen (2003) found that spiritual growth is a very important part of the lives of approximately 82% of the American population.
Religion, Spirituality, and Health

Religious involvement, especially participation in religious communities, may promote mental and physical well-being by regulating health-related conduct in ways that decrease the risk of disease. This includes (a) discouraging certain behaviors that increase the risk of health problems and (b) encouraging positive, low-stress lifestyle choices (Cochran, Beeghley, & Bock, 1988). But the potential impact of religious involvement on...
individual lifestyles may extend well beyond these links with specific health behaviors according to Ellison (as cited in Levin, 1994).

*Spiritual and Religious Coping*

According to Lazarus and Folkman (1984), coping refers to efforts, both action-oriented and intrapsychic, to manage environmental and internal demands and conflicts that tax or exceed a person’s resources. Although researchers interested in coping overlooked the role of religion/spirituality for years, there is mounting evidence that religious cognitions and behaviors can offer effective resources for dealing with stressful events and conditions (Ellison & Taylor, 1996; Pargament, 1997). Coping with stress, in turn, has been shown to be a powerful factor in both preventing disease and hastening recovery from illness. Ellison and Taylor (1996) suggested that religious coping is especially popular and apparently effective for certain social groups. They also expressed that religious cognitions and behaviors, especially those centering on prayer, meditation, and other devotional pursuits, seem to be especially valuable in dealing with serious health problems and bereavement.

Along with basic research on the associations of frequency of prayer with various indexes of well-being, several researchers have examined the efficacy of prayer as a coping resource for people who are undergoing stressful life events (Miller, 1999). Pargament’s (1997) review of this literature suggested that frequent prayer appeared in some studies to be a stress deterrent. Evidence suggested that what is important to understand is how prayer is linked with indexes of well-being, rather than frequency at which individuals pray (Pargament, 1997).
Spiritual Well-Being

The search for meaning and religion/spirituality are valued in the general American population. In addition, a significant area for evaluation in research pertains to holistic health. Recognition has grown that health care relevant to physical needs must also give attention to the mental and spiritual components of health (Moberg, 1979). During the 1960s and 1970s the social indicators movement was initiated by the United States government as a method of measuring the quality of life in the U S (Bufford, Paloutzian, & Ellison, 1991). Indicators such as education, income, employment, health, and housing were monitored. A gradual recognition that satisfaction in life was not dependent solely on objective factors gave rise to the subjective quality of life movement in which efforts were directed toward measurement of more subjective aspects of life experience (Bufford et al., 1991). At about the same time as the development of the quality of life movement, several lines of evidence suggested the importance of spirituality in well-being. Ellison (1983) and Paloutzian and Ellison (1982) reasoned that quality of life may be conceptualized to involve material, psychological, and spiritual well-being.

Spiritual well-being is not an easy topic to conceptualize, and Moberg (1979) suggested that spiritual well-being is not a synonym for religion. In many respects it is much more specific concept, but in others it is even broader, because it is not limited to the domain of religion. Its functional definition pertains to the wellness or health of the inner resources of people, the ultimate concerns around which all other values are focused, the central philosophy of life that guides conduct, and the meaning-giving center of human life which influences all individual and social behavior (Moberg, 1979). Ellison (1983) discussed further that a definition of spiritual well-being affirms life in a
relationship with God, self, community and environment that nurtures and celebrates wholeness.

Background of the Problem

As discussed above, spiritual well-being and mental health are interrelated. The general American population values these concepts. Lee and Waters (2003) found that spiritual well-being can act as a buffer to traumatic stress associated with cumulative or multiple exposures to traumatic stressors. Levin (2001) and Miller and Thoresen (2000) also suggested that there is an association between spirituality and health outcomes. Levin suggested that religion and spirituality are valued by people and those spiritual and religious beliefs or practices influence their health.

In addition, Miller and Thoresen (2003) suggested that spirituality and religion can have an important influence on human health and behavior. Religious resources figure prominently among the methods that people call upon when coping with life stress and illness (Koenig, McCullough, & Larson, 2001; Pargament, 1997).

The common stressors of our everyday lives can combine into an overwhelming negative synergy if we also suffer chronic physical illness (Koenig et al., 2001). In addition, daily stress also might transform the normal pain of grief at the death of a loved one into crippling emotional agony. Therefore, it is important to examine the connection that already exists between stressful life events and religion/spirituality.

In the late 1980s, Mation (as cited in Koenig, 1999) examined the role of strong personal faith as a buffer against serious stress. Mation compared the religious coping of recently bereaved parents in a support group and freshmen at an East Coast university undergoing painful stress in their adjustment to higher education and life away from
home. In both groups, those individuals with the strongest religious faith appeared to be best shielded from depression caused by stress.

More recently, several researchers including Miller (1999) and Pargament (1997) have examined the efficacy of prayer as a coping resource for people who are undergoing stressful life experiences. Pargament summarized that frequent prayer appears in some studies to be a stress deterrent. Additionally, Pargament suggested that people who pray frequently are less likely than people who pray infrequently to encounter psychological or physical illness and impairment in the aftermath of serious life stressors.

Spirituality and Traumatic Stress

Historically, the field of traumatic stress has evolved from the preexisting domain of stress and coping. According to Van der Kolk et al. (1996), the core of stress theory consists of a homeostatic model of self-conservation and resource allocation in response to adversity. Such responses usually occur under stress or in the immediate proximity of the stressor. He continued that “traumatic stress” blends two distinct constructs “stress” and “mental traumatization.” Van der Kolk et al. (1996) stated that traumatic stressors could be divided into different types. There are time-limited events such as an aircraft accident or a sexual assault, which are characterized by the unpreparedness of the victim and the high intensity. Sequential stressors can have a cumulative effect such as the experiences of emergency service workers. There are stressors characterized by long-lasting exposure to danger, which can evoke uncertainty and helplessness. Such stressors include combat involving multiple exposures and repeated intrafamilial abuse affecting attachment bonds and disrupting a basic inner sense of security.
Van der Kolk et al. (1996) suggested that people rebuild a sense of purpose and meaning when their assumptive world has been shattered and reconstructed around the images of the traumatic experience. He further suggested that the role of religious leaders in the provision of religious ceremonies that address issues of forgiveness and create a rationale for suffering could provide a critical vehicle for recovery. Religion and spirituality provide a historical lineage of human suffering and capacity for regeneration. Prayers, music, and icons provide a powerful sense of endurance despite the repeated onslaughts of disaster and war. Prayer and identification with the suffering of others can also provide a way forward. Levin (2001) suggested that, in theory, active religious participation could be a source of support, which in turn, may help to buffer the effects of stress and promote well-being.

Ellison and Levin (1998) suggested that religious and spiritual fellowship provide both tangible and emotional resources that buffer or reduce stress, whether it is caused by major life events, and/or chronic stressors. Additionally, active religious participation increases the likelihood that when stressful situations arise, they are put in a larger context that offers greater meaning, and therefore is experienced less negatively.

Theoretical Rationale

Addressing individual differences in any theory of human adaptation is a complex issue with which that theorists have struggled for many years. McCann and Pearlman (1990) developed the constructivist self development theory (CSDT), which was drawn largely from developmental social cognition theories. The construct “schema” underlies the social cognition tradition, a construct that is largely derived from Piaget’s cognitive
developmental theory. Schemas have been broadly defined as assumptions, beliefs, and expectations about self and world. Janoff-Bulman (as cited in McCann & Pearlman 1990) defined schemas as organized elements of past reactions and experience that form a relatively cohesive and persistent body of knowledge capable of guiding subsequent perception and appraisals.

Research has indicated that the CSDT has been utilized in assessing and treating traumatized college students. It has provided a map for understanding individual differences in adaptation to trauma, a guide to the survivor’s needs, and areas of vulnerability. This serves as a basis for assessment, treatment planning, and intervention with traumatized college students as well as other survivors of victimizing life events (McCann & Pearlman, 1992). Additionally, Pearlman (1998) suggested that CSDT may help explain and delineate the aspects of the self that are impacted by trauma. The theory rises from the interaction of the aspects of the individual, including his or her psychological resources, defenses, and needs. Nevertheless, assessment of the impact of trauma also needs to take into consideration the cultural and social context within which it occurs. Humans create and construe their personal realities. They order and designate meaning to new experiences (Pargament, 1997).

The CSDT theory is interactive; it focuses on the complex interaction between person and environment, an increasingly common view in the trauma literature. As an interactive theory it articulates the way in which specific aspects of situations elicit particular schemas, feelings, needs, and so forth from individuals (McCann & Pearlman, 1990).
The CSDT is based in a constructive perspective which was founded on the idea that humans actively create and construe their personal realities. The basic concept is that each individual creates his or her own representational model of the world. In addition, individuals order and assign meaning to new experiences. This representational model is a means to actively create and constrain new experience and thus determines what the individual will perceive as "reality."

Definition of Terms

_Spiritual well being._ Ellison (1983) defined the concept based on two components. One of the components was a religious perspective and the second component was a social-psychological perspective. In addition, Moberg (1971) has conceptualized spiritual well being as two faceted, with both vertical and horizontal components. The vertical dimension refers to a sense of well being in relation to God (Paloutzian & Ellison, 1982). The horizontal dimension refers to a sense of life purpose and life satisfaction with no reference to anything specifically religious.

_Stressful life experiences._ Stamm et al. (1996) stated that stressful life events include direct abuse or harm and witnessing an abuse or trauma. The stressful life experiences would be measured by the Stressful Life Experiences Screen short-form which assesses stressful life experiences such as serving in a declared or undeclared war, serving in the military, experiencing physical or emotional loss of a significant other, being exposed to a life-threatening illness, observing or experiencing domestic violence, physical or emotional abuse, rape or neglect (Stamm et al., 1996).
Traumatic stress. Van der Kolk et al. (1996) defined this concept as encompassing two distinct constructs: "stress" and "mental traumatization." A view that bridges the gap between stress and traumatic stress is best accounted for by the concurrence of several pathogenic processes including (a) a permanent alteration of neurobiological processes, resulting in hyperarousal, and excessive stimulus discrimination (b) the acquisition of conditioned fear responses to trauma-related stimuli; and (c) altered cognitive schemata and social apprehension, resulting from a profound dissonance between the traumatic experience and one's previous knowledge of the world (Van der Kolk et al., 1996).

Traumatic stress has been associated with events such as wars, captivity, torture, disasters, and racial extermination. Therefore, stress becomes traumatic precisely when psychological damage analogous to this type of physical damage occurs. The damage is to the self, to one's cognitive assumptions, to one's affect, to neuronal mechanisms governing habituation and learning, to one's memory network, or to emotional learning pathways (Van der Kolk et al., 1996). The traumatic stress symptoms would be measured by the scores on the Trauma Symptom Checklist (TSC-40). The TSC-40 is a 40-item self-report instrument consisting of six subscales: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index, Sexual Problems, and Sleep Disturbance.

Research Question

Will spiritual well-being and stressful life experiences be significant predictors of traumatic stress?
Hypotheses

1. Greater exposure to stressful life experiences will be correlated with higher level of traumatic stress symptoms. Given previous findings (Lee & Waters, 2003), there is a strong relationship between cumulative exposure to lifetime stressors and trauma symptoms.

2. Spiritual well-being and exposure to traumatic life experiences will be significant predictors of traumatic stress symptoms. Findings presented in Lee and Waters (2003) revealed that 47% of the variance in trauma symptoms in a adult college student sample were explained by spiritual well-being, stressful life experiences, and age.

3. Higher levels of spiritual well-being will be associated with lower levels of traumatic stress controlling for stressful life experiences.

Research has suggested that there is a positive association between spirituality and health outcomes (Levin, 2001; Miller & Thoresen, 2000). Lee and Waters, (2003) found that spirituality can act as a buffer or protective factor in the relationship between lifetime exposure to stressful experiences and the resulting traumatic stress.

Summary

This chapter explored the relationship between trauma-related symptoms, spirituality/religion concepts and their relationship to health outcomes, and stressful life experiences. Individuals who cannot change their unpleasant past experiences, have coped with issues evoked by the trauma often by assigning meaning to the recovery process through spirituality or religion. This may have an impact on how victims of
trauma experience their stressors, as Lee and Waters (2003) found. The current investigation was based on Lee and Waters’ model.

Clients generally explore and identify their values during therapy, and many of them have affirmed that their most important core values are spiritual in nature. Gallup Organization polls during the past two decades have revealed that approximately 95% of people in the United States profess to believe in God (Miller & Thoresen, 2003).

Research has suggested that spiritual and religious involvement is associated with positive health outcomes (Miller, 1999). Therefore, spiritual well-being has been related to physical health and also extended to mental health as well. Spiritual well-being pertains to the wellness of the inner resources of people, around which all other values are focused, and it affirmed life in a relationship with God, self, community and environment that nurtures and celebrates wholeness. There appeared to be a general protective effect of spiritual and religious involvement. Thus, spiritual variables might also be important mediators or moderators of change (Gorsuch, 1994).

Research suggested that individuals who value spirituality have an emotional resource to reduce the affects of major life events or stressors. In addition, Chapter 1 presented the constructivist self-development theory (CSDT, McCann & Pearlman, 1992) as a theoretical framework to understand the individual differences in adaptation to trauma.

Therefore, based on research findings (Lee & Waters, 2003; Levin, 2001; Miller, 1999; Pargament, 1997) it was proposed that individuals who adopted spiritual well-being as a significant dimension of health likely rely on it for coping and healing with trauma related symptoms and stressful life events.
Chapter II

REVIEW OF LITERATURE

In recent years, a growing body of literature has explored the implications of religion and spirituality for various mental and physical health outcomes (Koenig, 1994; Levin, 1994).

For the purpose of this study this chapter discusses the following topics such as spirituality and health, physical health, mental health, spirituality as a means of coping, traumatic stress and spirituality, and stressful life experiences and spirituality as coping mechanisms.

Spirituality and Health: Empirical Research

Are religious practices and spiritual growth related to positive health outcomes? The answer is “yes” according to research presented at The First International Conference on the Integration of Health and Spirituality (Khalsa, 2003).

Khalsa cited a comment by Ellen Idler that physicians have become aware of religion’s positive effects on health and suggest that if their patients follow their spiritual inclinations, an improvement in their well-being may follow. Researchers such as Ellison and Levin (1998), Larson et al. (1998), and Thoresen (1999) found through empirical studies that whenever religious faith is present, remembered wellness is triggered, and health can be improved. Larson et al. (1998) (as cited in Thoresen, 1999) mentioned general studies that reported consistent positive relationships with physical health, mental health, and substance abuse
outcomes, mostly using cross-sectional or prospective designs.

A substantial literature connects religion and spirituality to physical and mental health research (George, Ellison, & Larson, 2002; Koenig et al., 2001; Larson et al., 1998; Seybold & Hill, 2001). These researchers have suggested various possible psychological, social, and physiological mediators that may account for the religion and spirituality-health connection (Hill & Pargament, 2003).

Hill and Pargament (2003) discussed that the gap between psychology and religion and spirituality can also be observed in the empirical arena.

Systematic reviews of the empirical literature indicate that religion and spirituality are understudied variables in health-related research in a number of disciplines, including psychology (Weaver et al., 1998), psychiatry (Larson, Pattison, Blazer, Omran & Kaplan, 1986) family practice (Craigie, Liu, Larson, & Lyons, 1988), and gerontology (Shernill, Larson, & Greenwold, 1993).

Weaver et al. (1998), conducted a systematic review of research on religion and spirituality in articles published in seven American Psychological Association journals between the years 1991 and 1994. The authors found that 2.7% of the quantitative studies included a religion and spirituality variable. Furthermore, if the Journal of Personality and Social Psychology (which evaluated a religion and spirituality factor in 5.8% of the articles reviewed) were excluded from their systematic review, only 0.9% of the remaining articles measured the religion and spirituality variable (Weaver et al., 1998).

Hill and Pargament (2003) commented that such numbers are difficult to
interpret given that there are specialty journals designed to investigate religion and spirituality.

Despite these concerns, researchers in the psychology of religion have made progress in the measurement of religiousness. They have found that religion and spirituality are far from uniform processes. Instead, they are complex variables involving cognitive, emotional, behavioral, interpersonal, and physiological dimensions. Hill and Hood (1999) reviewed 125 measures of religion and spirituality from 17 different categories. Others have identified similar multiple dimensions of religion and spirituality (Fetzer Institute/National Institute on Aging Working Group, 1999). Hill and Pargament (2003) concluded that researchers have begun to get closer to religion and spirituality, articulating dimensions and measures of religion and spirituality that are linked theoretically and functionally to physical and mental health.

It is, therefore, important to suggest that there might be a relationship between spirituality and psychotherapy (La Torre, 2002). In addition, there may be also a relationship between the medical model and spirituality, as a result, spiritual and religious beliefs are increasingly recognized as necessary aspects of clinical care (Culliford, 2002).

Seeman, Dubin, and Seeman (2003) commented that there is a growing body of observational evidence that supports the hypothesis that links religiosity/spirituality to physiological processes. Although much of the earliest evidence came from cross-sectional studies with questionable generalizibility and potential confounding, more
recent research, with more representative samples and multivariate analysis, provides stronger evidence linking Judeo-Christian religious practices to blood pressure and immune function (Seeman et al., 2003).

Spirituality and Physical and Mental Health Domains

*Physical Health*

There have been reviews of the evidence that links religion or spirituality to physical health. Larson et al. (1998) discussed that the emphasis on the effects of religion and spirituality on physical health are likely explained by multiple factors and mechanisms. Matthews, Koenig, Thoresen, and Friedman (1998) summarized evidence that links religious involvement, usually frequency of religious service attendance, with physical health factors. Findings included: (a) lower rates of coronary disease, emphysema, cirrhosis and suicide; (b) lower blood pressure; (c) lower rates of myocardial infarction, (d) improved physical functioning; (e) medical regime compliance; (f) higher self-esteem, and lower anxiety, and fewer health-related worries one year after surgery in heart transplant patients; (g) reduced levels of pain in cancer patients; (h) better perceived health and less medical service utilization; and (i) decreased functional disability in the nursing-home dwelling elderly. According to Larson et al., these studies were either cross-sectional in design or prospective based on selective samples in terms of participants’ characteristics and the area from which they were drawn. In addition, these studies seldom used sufficient control measures or covariates known to influence health (Larson et al., 1998).
Mental Health

The National Institute for Healthcare Research (NIHR) in 1993 found that 77% of studies on the health benefits of religion demonstrate a positive effect, including in the areas of drug and alcohol abuse, emotional illness, chronic pain, and general health. In 1997, Levin, Larson, and Puchalski wrote a summary of American medicine's growing acceptance of the faith-health connection. They cited evidence that religious involvement is a protective factor that can be quantified like other health variables.

Miller (1999) discussed that religious involvement is generally a protective factor for social support and stress. This raises an interesting consideration in clinical intake interviewing. That is, understanding a client's spirituality can promote clearer communication, offering contextual information that is important to the process of treatment. In addition, Kehoe (1999) found no negative effects over the course of 18 years of leading a therapeutic group on spirituality with people with mental illness.

Gorsuch (1994) expressed that spiritual variables may also be important mediators or moderators of change. Information from a spiritual history can be useful in deciding what is to be expected of the client's spirituality and what could be monitored for change.

Miller (1999) commented that clinicians should be interested in at least a basic understanding of client's spirituality, consistent with other risk and protective factors such as family history, social support and stress.
According to Larson and Milano (1995) religious commitment can enhance recovery not only from physical illness and disability but from mental illnesses as well. Andreasen (1972) was one of the first researchers to note the beneficial clinical role that a religious perspective can have in coping with and recovering from depression. Patients with schizophrenia who attended church or were given supportive aftercare by religious caregivers were found to have lower overall rates of re-hospitalization (Chu, & Klein, 1985; Katkin, Zimmerman, Rosenthal & Ginsburg, 1975). In addition, Larson and Larson (2003) described a 2001 study of significant positive impact on (a) reducing depressive symptoms, (b) increasing satisfaction with life, (c) reducing length of hospital stay and (d) reducing risk of alcohol abuse (Baetz, Larson, Marcoux, Bowen, & Griffin, 2002).

In addition, a review of more than 80 studies published over the last 100 years found religious/spiritual factors generally linked with lower rates of depression (McCullough, Larsen, Thoresen, & Harris, 1999). Persons who both participated in a religious group and highly valued their religious faith were at a substantially reduced risk of depressive disorder, whereas people without any religious links may raise their relative risk of major depression by as much as 60% (Larson & Larson, 2003). Lack of organizational religious involvement was linked with a 20-60% increase in the odds of experiencing a major depressive episode (Larson & Larson, 2003).

Davis, Kerr, and Kurpius Robinson (2003) evaluated the relationship between spirituality and anxiety in at-risk adolescents. In this study paper-and-pencil tests were administered to the participants; one of them was the Spiritual Well-Being
Scale. These scales were administered to 45 male and female high school students who were considered to be at-risk youth. The research found that the higher the spiritual well-being among males, the lower the anxiety. Only lower existential well-being was associated with lower anxiety among females. It was concluded that given the many challenges to the healthy development of at-risk youth, it is important to understand whether spiritual and religious variables may enhance healthy psychological development (Davis et al., 2003). Their study supported the view that greater spiritual well-being predicted lower trait anxiety among at-risk adolescents. However, the sample could not be considered representative of at-risk adolescents, therefore results should not be generalized (Davis et al., 2003).

Spirituality as a Means of Coping: General Considerations

A domain of religion/spirituality identified by Pargament (1997) was religious coping. This domain pertains to the use of specific religious/spiritual methods for coping with stressful life events. Major life events can threaten one’s personal control. Religious and spiritual coping may be especially common in dealing with bereavement, family problems, and physical disabilities (Azhar, Varma, & Dharap, 1994; Comstock & Partridge, 1972; Frankel & Hewitt, 1994; Larson, 1989; Levin, 1996; Levin & Vanderpool, 1989; Medalie, Kahn, Neufeld et al., 1973; Pargament, 1997.) Longo and Peterson (2002) referred to coping as a process of actively managing stressful events and the accompanying emotional distress. Pargament, Smith,
Koenig, and Perez (1998) found that religious coping beliefs included the perception that stressful event was of a divine intervention.

It is important to comment that caution needs to be exercised when interpreting spiritual coping and how spiritual coping resources help or hinder individual's management of personal events. Pargament et al. (1998) studied three diverse samples coping with various life stressors. Participants were members of two churches in Oklahoma City at the time of the bombing of the federal building ($N = 296$). Questionnaires were distributed by mail to adult members of the two churches. The survey instrument completed by participants assessed demographic information, religious involvement before the bombing, and the respondents' exposure to the bombing. Health-related outcomes were assessed by a variety of measures. One of them was a measure of religious outcome, and it was used to assess the extent to which participants experienced positive religious changes, such as growing closer to God or the church as a result of coping with the bombing. Findings suggested a positive pattern that was composed of religious forgiveness, seeking spiritual support, collaborative religious coping, spiritual connection, religious purification, and benevolent religious reappraisal. The negative pattern was defined by spiritual discontent, punishing God reappraisals, interpersonal religious discontent, demonic reappraisal, and reappraisal of God's powers.

Empirical studies have indicated that many groups commonly use religious coping in times of stress, particularly the most disenfranchised in society (McRae, 1984).
In McRae’s study 255 men and women completed a questionnaire concerning their coping responses to a recent life event categorized by the investigator as either a loss, a threat, or a challenge. In the second study 151 subjects completed a shortened version of the questionnaire in response to three separate stressors that they selected as a loss, a threat, and a challenge. Across both studies, type of stressor had a consistent and significant effect on the choice of coping mechanisms. Faith was used especially when subjects had experienced a loss.

Koenig et al., (1995) studied the association between depressive symptom type and religious coping in consecutively admitted older medical inpatients ($N=832$). Religious coping, a strategy heavily dependent on cognitive processes, was associated with fewer cognitive but not somatic symptoms of depression in medically ill older patients. The author reported that the study’s findings were preliminary and required replication in nonveteran and female populations before they can be generalized to other settings. In the longitudinal portion of the original study, they examined both change in religious coping and change in depression over 6 months in 202 readmitted patients, finding no correlation between the two factors. Some patients turned more strongly toward religion as their depression worsened, and others turned away from it (Koenig et al., 1995).

Religious coping has been associated with the physical health and mental health-related outcomes of a wide variety of critical life situations, such as illness (Tix & Frazier 1998) and the death of a loved one (McIntosh, Silver, & Wortman 1993). In McIntosh’s study, 124 parents were recruited after they lost an infant to sudden infant death syndrome. They were interviewed 3 weeks and 18 months
Two components of religion were assessed. In addition to their relationship to three coping process variables.

These variables were cognitive processing, finding meaning, and perception of social support. Findings revealed religious participation increased perception of social support and greater meaning found in the loss. Importance of religion was positively related to cognitive processing and finding meaning in the death (McIntosh et al., 1993).

In Tix and Frazier's study (1998), patients and significant others coping with the stress of kidney transplant surgery were investigated. At 3 and 12 months after transplantation, results showed that the use of religious coping was generally associated with better adjustment both concurrently and over time in both patients and significant others.

According to Spaniol (2002), we all need something outside of ourselves to anchor our lives and to provide meaning. Values, religious or philosophical beliefs, commitment to family, community, or humankind or a trust in God are all ways for us to put our individual lives into perspective and discover a guide for living. Therefore recovery, as a spiritual journey, can be seen as a process of building or rebuilding our connectedness to ourselves, to others, to our living, learning, and working environments, and to larger meaning and purpose (Spaniol, 2002).

Gallagher, Wadsworth, and Stratton (2002) suggested that one of the frequent complaints that contemporary clients bring to psychotherapists is that
life lacks meaning. This is when it is important to discuss the spiritual dimension of the client and explore how he/she incorporates it for coping/treating mental health issues (Gallagher et al., 2002).

Stressful Life Experiences and Spirituality as a Coping Mechanism

Gordon et al. (2002) discussed the controversy with regard to coping with stress, adaptations to stress, and cognitive and behavioral attempts to deal with psychological stress. Although there are disagreements regarding the definition of coping, Folkman and Moskowitz's (2000) review of the literature suggested that coping is multifunctional, is influenced by personality dispositions and social resources, and is definitely dependent on the individual's appraisal of the stressful situation. Despite these concerns it is clear that it is important to understand the coping process to promote positive adjustment, especially if this is related to religious/spiritual coping.

Graham, Furr, Flowers, Burke et al., (2001) suggested that religion and spirituality positively correlated with coping with stress. They studied a sample of 115 graduate students in counseling. Those who expressed spirituality through religious beliefs had greater spiritual health and immunity to stressful situations. Over the past decade, spirituality has received increased attention in the counseling field as an important component in the counseling relationship and in counselor training programs (Ingersoll, 1994). In this study most of the participants were Caucasian women, with few men and few participants representing other ethnic backgrounds. Although the testing instruments adequately measured the variables to be studied,
questions about the validity and reliability of the testing instruments should be raised (Ingersoll, 1994).

Koenig (as cited in Khalsa, 2003) found that since 9/11, ninety percent of Americans have turned to religion and spirituality as a way of coping with stress and grief. On the other hand, Pargament (1997) suggested that religion is more helpful to some people than others. This offers another perspective. People may have been affected to 9/11 by different ways.

How else can religion and spirituality affect mental health positively? Koenig (as cited in Khalsa, 2003) commented that religion and spirituality affect mental health by impacting forgiveness, as well as giving meaning, purpose, and a sense of connectedness to life. All of these are aspects of a high level of positive mental health (Khalsa, 2003). In addition, Khalsa commented that research has given the importance of group/social support in fostering health-related outcomes. It is an important note that Khalsa reviewed the medical literature, which revealed that social and community support are powerful healing factors.

According to a recent Gallup report (Gallup, 2001), the leading religious indicators in the United States remain relatively high. Many studies have examined the influence of religiousness on coping with various stressful situations, including health problems (Finney & Maloney, 1985; Holt & Dellmann-Jenkins, 1992; McIntosh, Cohen, Silver, & Wortman, 1998). A study of women exposed to a stressful life experience, namely early stage breast cancer, revealed that they utilized religious beliefs as a mechanism for coping with chronic illness.
Some of the coping mechanisms related to this study included acceptance, positive reframing, and use of religious/spiritual thoughts.

Furthermore, Larson and Milano (1995) studied a group of elderly inpatients suffering from a variety of clinical disorders. They found that more than 50% of the patients rated their religious beliefs as being a very important means of coping with their stressful life events such as chronic physical and mental illness. Larson and Milano (1995) studied patients undergoing heart surgery, and findings revealed a similar protective quality for religious commitment. In another example, patients with schizophrenia, who attended church or were given supportive aftercare by religious caregivers, were found to have lower overall rates of re-hospitalization (Larson & Milano, 1995).

Another example of a stressful life event is caregiving for a loved one with dementia. Acton and Miller (2003) also investigated spiritual meaning in caregivers of family members with dementia. They implemented various intervention strategies and evaluated their impact on the aspects of caregiving. Spirituality was described in their study as a connection between a higher power, others, and oneself that resulted from patterns of process, communication, and discovery.

Traumatic Stress and Spirituality

Lee and Waters (2003) discussed the impact of stressful life experiences and spiritual well-being on trauma symptoms in a sample of 61 graduate and undergraduate male and female college students between the ages of 17 and
55. This research found that spiritual well-being can act as a buffer to traumatic stress associated with cumulative or multiple exposure to traumatic stressors (Lee & Waters, 2003). Galea et al. (2003) analyzed data from three representative cross-sectional surveys of New York City in the first months after the September 11 attacks. They found relatively rapid decline in the prevalence of probable post-traumatic stress disorder related to the September 11 attacks in the general population. However, this study did not present any alternative for treatment, leaving a gap of not discussing coping styles which might have benefited those who were exposed to traumatic stress. It may be concluded only that the terrorist attack is a stressful life event, and as a result of the exposure, people might have developed traumatic stress. Some individuals may have been traumatized and others may not have been. Additionally, others may only have tried to make sense of the situation (Pargament, 1997).

Sprang (1999) studied 472 community members to examine the nature and course of the post-disaster response to the April 19, 1995 bombing in Oklahoma City. The study discussed the degree of exposure experienced with regard to traumatic stress. However, it did not present any discussion of the relationship between traumatic stress and spirituality/religion as a coping mechanism. This opens an opportunity for further research given the gap in the literature to be learned from the community in the post-disaster period (Sprang, 1999).

It is important to remember that these experiences shape the lives of everyone who is touched by the event (Sprang, 1999). Sprang (2000) researched
respondents’ coping styles in the development of traumatic stress symptoms in those that have been indirectly exposed to the stressful life experience. She found those with high levels of avoidance style coping had higher levels of distress across all four dimensions. However, this study did not consider religious/spiritual dimensions of the respondents coping styles. Thus, it is important for this the current study to further investigate traumatic stress and spirituality as a coping mechanism.

In addition, Gallup and Newport (2001) suggested that there might be a relationship between religion/spirituality and traumatic stress. They commented that based on the last December 2001 poll there was no wholesale difference in how people describe the importance of religion in their lives compared to before September 11, 2001. However, it is important to also mention that in the same poll, 61% said that religion/spirituality can answer life’s problems.

Gallup and Newport (2001) analyzed the data and commented that certainly the period immediately following the terrorist attacks could be described as a dark night of the nation’s soul. As a means of coping, studies have shown that many people tended to turn to God at a time of personal emotional, physical, or spiritual pain or turmoil. In a poll conducted between December 14-16, 2001 by Gallup and Newport, participants revealed that after being asked this question “Do you think religion as whole is increasing its influence on American life or losing its influence?”, the poll findings were as follows: 71% of Americans increased belief of the reliance of religion, 24% losing influence, 2% same influence, and 3% no opinion.
Summary

A number of studies have found significant relationships between the sense of meaning in life and indices of health, particularly mental health. The key question for researchers has been whether meaning is inherently religious or spiritual. According to Pargament (1997), the search for meaning becomes religious only when it involves some connection with the sacred. Studies of the search for religious/spiritual meaning as it relates to health and recovery from trauma were also examined.

Research shows that spirituality has received an enormous amount of attention over the last years. A growing amount of quantitative research points to the potential relevance of patient spirituality/religion to physical and mental health (Larson & Larson, 2003). Among patient populations, a significant proportion draw on spiritual/religious resources to cope, whether facing medical illness or mental health problems (Larson & Milano 1995; Miller, 1999; Miller & Thoresen, 2003). A body of research has indicated that spirituality likely reduces the affects of stressful situations (Pargament, 1997).

Findings of several studies revealed that patients who had health problems utilized religious beliefs as a coping mechanism to deal with the traumatic stress of the illness (Finney & Maloney 1985; Holt & Dellmann-Jenkins, 1992; McIntosh et al.,1998). Elderly patients, suffering from a variety of clinical disorders, found important means of coping with their stressful life events, such as the chronic physical and mental illness (Larson et al.,1998; Larson & Milano...
1995). Studies of patients of schizophrenia revealed that those attending church were given supportive aftercare to caregivers and as a consequence lower the overall rates of re-hospitalization (Chu & Klein, 1985). Spirituality has been described through research as a connection with patterns of process, communication and discovery.

It was also important to present findings of a study that suggested that depressive patients utilized religious/spiritual factors to reduce their depressive symptoms, to increase satisfaction in life and to reduce hospital length of stay (Baetz et al., 2002). Thus, the body of literature also has presented an opportunity for further research in the community, and has opened opportunities to learn more with regard to the post-disaster period.

Findings suggested that there might be a relationship between religion/spirituality and traumatic stress. As a means of coping, studies have shown that many people tend to turn to God at a time of personal, emotional, physical, or spiritual strain (Miller, 1999). Therefore, it is important to study the impact of spirituality and stressful life experiences on traumatic stress (Lee & Waters, 2003). In addition, research suggested that spiritual well-being might have acted as a buffer to the traumatic stress in association with the recent stressors to which the United States population has been exposed (Galea et al. 2003; Lee & Waters 2003; Silver et al., 2002; Sprang, 1999, 2000).
Chapter III

METHODOLOGY

This chapter will describe the methodology that was utilized to investigate the relationship between spiritual well-being, trauma symptoms, and stressful life experiences. Following was a description of the research setting, participants, procedures for the data collection, research instruments, and methods of scoring, validity and reliability measures of the instruments used, and the method of data analysis.

Approximately 120 volunteers participated in this study. They consisted of male and female college students ranging in age from 22 to 55. Students were recruited from a medium-sized private, Catholic university in the New Jersey metropolitan area. Recruitment took place both during class time with the cooperation of the instructors, or outside the classroom with graduate students.

Instruments

*Spiritual Well-Being Scale (SWBS)*

The Spiritual Well Being Scale (SWBS), developed by Paloutzian and Ellison (1982), is a 20-item questionnaire. It was designed to measure two dimensions of spirituality: A religious dimension was based on the individual’s relationship with God, and an existential dimension based on the individual’s satisfaction with life. To assess these two dimensions, the scale has two subscales: Ten of the statements assess (religious well-being) RWB and contain the word “God.” The remaining 10 statements assess
(existential well-being) EWB and have no religious connotation; they asked about satisfaction with life and relationship to others.

Even numbered items assessed existential well-being. The sum of the even numbered items indicated the EWB subscale score. Odd numbered items assessed religious well-being, the sum of which indicated the RWB subscale score. The overall SWBS score was computed by summing responses to all 20 items.

The instrument was normed using a variety of populations beginning in 1982 and included college students, nursing students, seminary students, religious groups, convict, and patients with terminal illnesses (Bufford, Paloutzian, & Ellison, 1991). These studies found that scores on the instrument were not appreciably affected by the age and sex of subjects.

**Test-retest Reliability.** Test-retest reliability coefficients were obtained from 100 student volunteers over a 12-week period at the University of Idaho (Paloutzian & Ellison, 1982) and were reported as .93 (SWB), .96 (RWB) and .86 (EWB). Coefficient alphas, indices of internal consistency were reported by Paloutzian and Ellison: .89 (SWB), .87 (RWB) and .78 (EWB). The magnitude of such coefficients suggested that the SWB had high reliability and internal consistency.

Paloutzian and Ellison (1982) reported, in a second study, test-retest reliability coefficients of .93 for the SWB, .86 for the EWB and .96 for RWB when the test was administered to 206 college students within 1 to 10 weeks between testings. Coefficient alpha were reported to be .89 for the SWB, .89 for the RWB, and .78 for the EWB.

**Validity.** Validity studies showed high correlations between the SWB and psychological variables in predicted ways (Ellison, 1983; Miller, 1990; Paloutzian &
Ellison, 1982). Spiritual Well-Being scores correlated in predicted ways with other theoretically related scales. For example, Ellison and Paloutzian (1979) found the SWB to also correlate highly with Intrinsic Religious Orientation (Allport & Ross, 1967). Ellison and Paloutzian reported an \( r_{164} = .67, p < .001 \), while Extrinsic Religious Orientation had a low correlation with the SWBS \( r_{164} = .26, p < .001 \).

**Stressful Life Experiences Screen-Short Form**

The Stressful Life Experiences Screen (SLES: Stamm et al., 1996) is a 20-item self-report questionnaire asked how well each statement described an individual’s experience of a stressful life event such as: exposure to violence, witnessed or experienced; unwanted sexual contact; terrorist attack; death of spouse; friend or family member; human-made disaster; or serious injury.

Margiotta (2000) utilized on her study this measurement tool in order to address the history of stressful events in the participant’s life and the level of past and present stressfulness experienced. Administration time for this 20-item Short Version is estimated to be approximately 10 minutes.

**The Trauma Symptom Checklist (TSC)**

The Trauma Symptom Checklist-40; (TSC-40) (Briere & Runtz, 1989; Elliott & Briere, 1992) is a 40-item self-report research measure that evaluated symptomatology in adults arising from childhood and adult traumatic experiences. The TSC-40 was an expanded version of the Trauma Symptom Checklist-33 (TSC-33; Briere & Runtz, 1989). The subscale composition for the TSC-40 was as follows: (a) Dissociation items, (b)
Anxiety items, (c) Depression items, (d) SATI (Sexual Abuse Trauma Index) items, (e) Sleep Disturbance items, and (f) Sexual Problems items. Each TSC symptom item was rated according to frequency over the preceding 2 months, using a 4-point scale ranging from 0 (never) to 3 (often). Studies using the TSC-33 and TSC-40 scales indicated that they are moderately reliable measures that have reasonable predictive validity with reference to a wide variety of traumatic experiences (Elliott & Briere, 1992; Follette et al., 1996; Gold, Milan, Mayall, & Johnson, 1994; Roesler & McKenzie, 1994). Because it was intended solely as a research measure, and given its only moderate psychometrics and the absence of standardization data, the TSC-40 could not be used as a clinical test of posttraumatic states. It measured not only posttraumatic stress, but also other symptom clusters found in some traumatized individuals. Studies using the TSC-40 indicate that it is a relatively reliable measure. Subscale alphas typically ranged from .66 to .77 with alphas for the full scale averaging between .89 and .91 (Briere, 1996).

Procedures

Before visiting the classroom, permission was obtained from the instructor by sending a packet including a cover letter, informed consent form, demographic data form, and a copy of the instruments with the instructions. Once permission was obtained appointments were made for the researcher to arrive at the classroom during designated times. Before the instruments were distributed by the researcher to the students, the participants were informed that the research was expected to contribute to understanding the relationship among aspects of spirituality, trauma and life experiences. The participants were instructed to read the consent forms
and sign if they would participate. The participants were advised of their right to
decline participation in, or to withdraw from, the study at any time. Consent forms
were signed, which were then collected by placing them in a sealed
envelope by a designated student. The students were informed that the results
would become part of the data analysis. Students’ participation was strictly
voluntary. The scales were distributed, and instructions were explained to the
participants. The completion took 20 minutes for most students.

Planned Statistical Analysis

The purpose of this section is to describe the statistical analyses that will be
carried out to analyze the data collected in this study. Frequency distributions will be
generated for the individual questions that constitute the demographic questionnaire
including age, gender, race/ethnicity, employment status, religion, year in college, level of
educational attainment, whether or not the subject had been in counseling or
psychotherapy, and whether or not the subject had at least one person to whom they could
talk to. Also, frequency distributions and means and standard deviations were generated
on the Stressful Life Experiences Screen scores SLES, the Trauma Symptom Checklist
TSC total score and scale scores, and the Spiritual Well Being Scale SWBS. Coefficient
alpha reliabilities were computed to examine the reliability of the scales and subscales of
these surveys. A table of Pearson correlation coefficients was presented to describe the
relationships between the variables.
The statistical power analysis for Hypothesis 1 indicated that when assuming a medium effect size and alpha at the .05 level, a minimum of 85 subjects were required to analyze the data with a Pearson correlation with a power of .80.

The statistical power analysis for Hypotheses 2 and 3 indicated when assuming a medium effect size and alpha at the .05 level, a minimum of 67 subjects was required to analyze the data with a multiple regression analysis with a power of .80.

In this study, three hypotheses were tested to assess whether they were supported by the data. Hypothesis 1 stated that greater exposure to stressful/traumatic life experiences was correlated with higher level of trauma symptoms. To analyze this hypothesis, Pearson correlation coefficients were computed between the SLES scores and the subscale scores of the TSC-40 including TSC Anxiety, TSC Depression, TSC Dissociation, TSC Sexual Abuse Trauma, TSC Sexual Problems, and TSC Sleep Disturbance. Significant correlations were identified and interpreted.

The second hypothesis predicted that both spirituality and exposure to stressful life experiences were significant predictors of the variance (regression) in trauma symptoms (TSC-40). Multiple regression analyses were conducted to examine the multivariate relationships between spirituality and life experiences with the 6 subscales of the TSC-40 including Anxiety, Depression, Dissociation, Sexual Abuse Trauma, Sexual Problems, and Sleep Disturbance. In each regression, the beta weights were examined and significant relationships were identified and interpreted.

Finally, the third hypothesis posits that higher levels of spirituality were
associated with lower levels of traumatic stress, after controlling for stressful life experiences. Hierarchical multiple regression analysis was used to evaluate this hypotheses. The level of trauma symptoms were the dependent variable, and life experiences and spirituality were the predictors. Six regression analyses were conducted, one for each TSC-40 subscale including Anxiety, Depression, Dissociation, Sexual Abuse Trauma, Sexual Problems, and Sleep Disturbance. In these analyses, the TSC-40 scales were the dependent variable, and the SLES Stressful Life Experiences Screen scores and the Spiritual Well-Being score were the predictors. In each regression, the life stressful experience scores were entered as the first step. Spirituality scores were entered as the second step. The beta coefficients at the first and second step were presented to evaluate the impact of spirituality on trauma symptoms after controlling for the effects of traumatic life experiences. The multiple correlation coefficient and $F$ change statistics were presented to determine if spirituality accounted for significant additional variance in trauma symptoms beyond that explained by traumatic life events.
Chapter IV

RESULTS

The purpose of this chapter is to present the results of the statistical analyses. The chapter begins with a presentation of basic descriptive statistics to report on the participants' demographics and the main study variables.

Demographics and Descriptive Statistics of Study Variables

Data were collected from 120 participants for this study. The entire group of the 120 packets was utilized for the data entry. The participants were graduate students from a private northeastern Catholic university, enrolled in a mental health training program. The sample included 93 females (77.5%) and 27 males (22.5%). The ages ranged from 21 to 66 ($M = 28.55, SD = 8.38$). The majority of the participants were age 29 or younger (see Table 1) and Caucasian (see Table 2).

Table 1

*Frequency Distribution of Ages of Participants ($N = 120$)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 24</td>
<td>51</td>
<td>42.5</td>
<td>42.5</td>
</tr>
<tr>
<td>25 to 29</td>
<td>37</td>
<td>30.8</td>
<td>73.3</td>
</tr>
<tr>
<td>30 to 34</td>
<td>11</td>
<td>9.2</td>
<td>82.5</td>
</tr>
<tr>
<td>35 to 39</td>
<td>4</td>
<td>3.3</td>
<td>85.8</td>
</tr>
<tr>
<td>40 to 44</td>
<td>10</td>
<td>8.3</td>
<td>94.2</td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 to 54</td>
<td>4</td>
<td>3.3</td>
<td>99.2</td>
</tr>
<tr>
<td>55 and over</td>
<td>1</td>
<td>.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2

*Frequency Distribution of Participants' Race*

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>84</td>
<td>70.0</td>
</tr>
<tr>
<td>African American</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7</td>
<td>5.8</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>Arabic</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A frequency distribution of the participants' employment status is presented in Table 3.

Most of the participants were working either full-time or part-time.
Table 3

*Frequency Distribution of Employment Status*

<table>
<thead>
<tr>
<th>Employment</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not working</td>
<td>14</td>
<td>11.7</td>
</tr>
<tr>
<td>Part-time</td>
<td>28</td>
<td>23.3</td>
</tr>
<tr>
<td>Full-time</td>
<td>76</td>
<td>63.3</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>1.7</td>
</tr>
</tbody>
</table>

A frequency distribution of religion is presented in Table 4. More than one half of the participants were Catholic. The next largest group reported their religious affiliation as “other,” and the remaining participants were Protestant, Jewish, Buddhist, and Hindu. Five participants did not report a religious affiliation.

Table 4

*Frequency Distribution of Participants’ Religion*

<table>
<thead>
<tr>
<th>Religion</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td>64</td>
<td>53.3</td>
</tr>
<tr>
<td>Protestant</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td>Jewish</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Hindu</td>
<td>1</td>
<td>8.0</td>
</tr>
<tr>
<td>Buddhist</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>4.2</td>
</tr>
</tbody>
</table>
A frequency distribution on highest degree earned is presented in Table 5. Most participants have earned a BA or BS degree, while over one third of the participants have earned an MA or MS. One participant has earned a doctorate.

Table 5

*Frequency Distribution of Highest Degree Held*

<table>
<thead>
<tr>
<th>Degree</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA/BS</td>
<td>78</td>
<td>65.0</td>
</tr>
<tr>
<td>MA/MS</td>
<td>41</td>
<td>34.2</td>
</tr>
<tr>
<td>Ed.D./Ph.D.</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Slightly more than half of the participants reported previous experience in counseling or psychotherapy. There was one missing response. Almost all participants had at least one person in their life with whom they can talk things over. Only one participant reported not having at least one person to talk with.

Descriptive statistics for the instruments used in this study are presented in Tables 6 and 7. As discussed in Chapter III, Stressful Life Experiences (SLE) was scored using two methods. Method 1 includes calculating the sum of scores. Using a small set of questions as an example, if a participant chose values 3, 5, and 5 to describe her or his experiences for any of the 20 questions, according to Method 1, the score for the questions would be 13, which is the sum of the questions' values ($5 + 5 + 3 = 13$).
Method two includes scoring based on "absolute values," which means that each question valued greater than zero is counted as one. Returning to our example, a participant who circled questions with values 3, 5, and 5 would be scored as three according to the second method ($1 +1 +1 = 3$).

Table 6

*Means and Standard Deviations of the Survey Instruments*

<table>
<thead>
<tr>
<th>Scales and Subscales</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE Score</td>
<td>45.73</td>
<td>23.88</td>
</tr>
<tr>
<td>SLE&gt;0</td>
<td>6.73</td>
<td>3.26</td>
</tr>
<tr>
<td>SWB</td>
<td>46.69</td>
<td>13.23</td>
</tr>
<tr>
<td>EWB</td>
<td>20.11</td>
<td>7.34</td>
</tr>
<tr>
<td>RWB</td>
<td>26.57</td>
<td>13.8</td>
</tr>
<tr>
<td>TSC total score</td>
<td>25.60</td>
<td>15.22</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.60</td>
<td>3.53</td>
</tr>
<tr>
<td>TSC</td>
<td>6.75</td>
<td>4.25</td>
</tr>
<tr>
<td>Depression</td>
<td>3.10</td>
<td>2.78</td>
</tr>
<tr>
<td>TSC SA</td>
<td>3.10</td>
<td>2.78</td>
</tr>
<tr>
<td>Trauma</td>
<td>3.10</td>
<td>2.78</td>
</tr>
</tbody>
</table>
Table 6
(Continued)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC Sleep Disturbance</td>
<td>7.20</td>
<td>4.46</td>
</tr>
<tr>
<td>TSC Sexual Problems</td>
<td>3.23</td>
<td>3.69</td>
</tr>
</tbody>
</table>

*Pearson Correlation Analysis*

The Pearson correlations (Table 7) show the following significant relationships:

The Stressful Life Experiences (SLES) score showed a significant positive correlation with total Trauma Symptom Checklist scores (TSC) scores. Stressful Life Experiences Screen scores greater than zero (SLE>0) demonstrated positive significant relationships with the TSC Anxiety, TSC Depression, and TSC Sleep Disturbance subscales and with Trauma Symptom Checklist total scores.

Spiritual well being showed significant positive relationships with the TSC Depression and Sleep Disturbances subscales and with the TSC total score. All TSC subscales showed positive correlations with each other.

Existential well being showed positive significant correlations with religious well being, spiritual well being, and the TSC Dissociation, Anxiety, Sexual Abuse, Trauma, Depression and Sexual Problems subscales, and with the TSC total scores.

The Religious Well Being subscale demonstrated a significant positive correlation with spiritual well being, and Stressful Life Experiences scores greater than zero (SLE>
demonstrated positive significant relationships with TSC Anxiety \((r = .18, p = .05)\), with TSC Depression \((r = .19, p = .03)\), with TSC Sleep Disorder \((r = .22, p = .05)\), and with Trauma Checklist Symptoms total (TSCTS) scores \((r = .22, p = .01)\).

Spiritual well being showed significant positive relationships with TSC Depression \((r = .31, p = .001)\), TSC Sleep Disturbances \((r = .25, p = .005)\), and TSC total scores \((r = .25, p = .005)\). All TSC subscales showed significant positive correlations with each other.

Existential well being showed positive significant correlations with religious well being \((r = .23, p = .01)\), spiritual well being \((r = .61, p = .001)\), TSC Dissociation \((r = .27, p = .002)\), TSC Anxiety \((r = .33, p = .001)\), TSC Sexual Abuse Trauma \((r = .36, p = .001)\), TSC Depression \((r = .49, p = .001)\), TSC Sexual Problems \((r = .32, p = .001)\), and TSC total scores \((r = .48, p = .001)\).

Religious well being demonstrated a significant positive correlation with spiritual well being \((r = .90, p = .001)\).
Table 7

Pearson Correlations among Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE</td>
<td>1.00</td>
<td>0.84</td>
<td>0.09</td>
<td>-0.04</td>
<td>-0.03</td>
<td>0.09</td>
<td>0.14</td>
<td>0.15</td>
<td>0.12</td>
<td>0.23</td>
<td>0.02</td>
<td>0.18</td>
</tr>
<tr>
<td>SLE&gt;0</td>
<td>1.00</td>
<td>0.29</td>
<td>0.97</td>
<td>0.67</td>
<td>0.20</td>
<td>0.05</td>
<td>0.10</td>
<td>0.09</td>
<td>0.18</td>
<td>0.09</td>
<td>0.81</td>
<td>0.05</td>
</tr>
<tr>
<td>EWB</td>
<td>1.00</td>
<td>0.23</td>
<td>0.61</td>
<td>0.27</td>
<td>0.33</td>
<td>0.49</td>
<td>0.36</td>
<td>0.33</td>
<td>0.32</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWB</td>
<td>1.00</td>
<td>0.90</td>
<td>0.04</td>
<td>0.06</td>
<td>0.12</td>
<td>0.016</td>
<td>0.13</td>
<td>0.05</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWB</td>
<td>1.00</td>
<td>0.08</td>
<td>0.14</td>
<td>0.31</td>
<td>0.14</td>
<td>0.25</td>
<td>0.18</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.67</td>
<td>0.58</td>
<td>0.26</td>
<td>0.49</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.67</td>
<td>0.63</td>
<td>0.47</td>
<td>0.40</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.59</td>
<td>0.72</td>
<td>0.53</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.28</td>
<td>0.63</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.002)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.21</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>TSC</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. SLE = Stressful Life Experience; SLE>0 = Stressful Life Experience greater than zero; EWB = Existential Well Being; RWB = Religious Well Being; SWB = Spiritual Well Being; TSC dis = Trauma Symptom Scale-Dissociation; TSC anx = Trauma Symptom Scale-Anxiety; TSC dep = Trauma Symptom Scale-Depression; TSC sat = Trauma Symptom Scale-sexual abuse trauma; TSC sle = Trauma Symptom Scale-sleep disturbance; TSC sexp = Trauma Symptom Scale-sexual problems; TSC ts = Trauma Symptom Scale-total scores.
Internal Consistency

Alpha Reliability

The Cronbach’s alpha reliabilities for the scales used in this study are presented in Table 8. All scales had moderate to high levels of reliability. In calculating Cronbach’s alpha reliability, interrelated items are summed to obtain an overall score for each subject.

Cronbach’s alpha evaluates the reliability of a scale by determining the internal consistency of the scale or the average correlation of questions within the scale (Cronbach, 1951).

Table 8

Reliability Coefficients

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressful Life Experiences total score (SLE)</td>
<td>.72</td>
</tr>
<tr>
<td>Spiritual Well Being (SWB)</td>
<td>.92</td>
</tr>
<tr>
<td>Existential Well Being</td>
<td>.88</td>
</tr>
<tr>
<td>Religious Well Being</td>
<td>.96</td>
</tr>
<tr>
<td>TSC total score</td>
<td>.90</td>
</tr>
<tr>
<td>TSC Dissociation</td>
<td>.75</td>
</tr>
<tr>
<td>TSC Anxiety</td>
<td>.61</td>
</tr>
<tr>
<td>TSC Depression</td>
<td>.71</td>
</tr>
</tbody>
</table>
Table 8 (continued)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC Sexual Abuse Trauma</td>
<td>.70</td>
</tr>
<tr>
<td>TSC Sleep Disturbance</td>
<td>.86</td>
</tr>
<tr>
<td>TSC Sexual Problem</td>
<td>.75</td>
</tr>
</tbody>
</table>

*Analyses of the Hypotheses*

**Hypothesis 1**

The first hypothesis predicted that greater exposure to stressful life experiences would be positively correlated with higher levels of trauma symptoms.

Pearson correlations were used to analyze this hypothesis. The correlations in Table 7 show the following significant relationships between reported trauma symptoms and stressful life experiences. Stressful life experiences scores showed a significant positive correlation with total Trauma Symptom Checklist scores ($r = .18, p = .05$). Stressful life experience scores greater than zero demonstrated positive significant relationships with TSC Anxiety, with TSC Depression, with TSC Sleep Disorder, and with Trauma Symptoms Checklist total scores. Since SLE scores correlated significantly with total TSC scores as well as several TSC subscales, this hypothesis is supported. Both methods were used to test this hypothesis.
Hypothesis 2

The second hypothesis proposed that spirituality and exposure to stressful life experiences would be significant predictors of trauma symptoms. A multiple regression analysis was used to analyze this hypothesis. Prior to conducting the analysis, the data were checked to insure conformance to the assumptions required to conduct a valid regression analysis including normality, linearity, homoscedasticity, and homogeneity of variance, which were all satisfactory.

The data were examined for outliers, which were defined as scores greater than 3 standard deviations from the mean. One outlier was found for SLE scores (when scored as any experience greater than zero), one for spiritual well being, three for TSC Dissociation, one for TSC Depression, two for TSC Sexual Abuse Trauma, and two for TSC Sexual Problems. These scores were converted to scores at the third standard deviation.

Using standard multiple regression analyses, the dependent variables were the scales of the TSC, and the predictors were the Stressful Life Experience scores and Spiritual Well Being scores.

TSC Total Scores

The regression analysis results for the TSC total scores are presented in Table 9. In this regression model, TSC scores was the dependent variable, and SLE>0 and SWB are the independent variables used to explain TSC total scores. According to this model, SWB and SLE>0 are significant in explaining this variation, $R^2 = .10, F (2,117) = 6.81, p = .002$. The beta coefficients for SLE>0 and spiritual well being are 0.20 and
.22 respectively. The beta coefficients were positive and significant for SLE and spiritual well being, so a significant multivariate relationship was found between these variables. These results indicate that higher levels of stressful life events and higher levels of spiritual well being were associated with higher levels of total TSC scores.

Table 9

Multiple Regression Analysis for TSC Total Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE &gt; 0</td>
<td>.968</td>
<td>.422</td>
<td>.201</td>
</tr>
<tr>
<td>Spiritual Well Being</td>
<td>.220</td>
<td>.078</td>
<td>.247</td>
</tr>
</tbody>
</table>

SWB is significant in explaining the variation in TSC total scores at beyond the 0.01 significance level, whereas SLE>0 is significant at the 0.05 level.

Regression results for the TSC subscales results are reviewed below.

TSC Subscales

TSC Dissociation. The regression results for the TSC Dissociation indicated that the overall regression analysis was not significant, $R^2 = .02$, $F(2,117) = 1.23$, $p = .29$. The beta coefficients were not significant for SLE and spiritual well being.
**TSC Anxiety.** The regression analysis for TSC Anxiety as the dependent variable revealed that the results were not significant, $R^2 = .05, F(2, 117) = 2.76, p = .07$. The beta coefficients were not significant for SLE and spiritual well being. No multivariate relationships were found between these variables.

**TSC Depression.** The multiple regression analysis for TSC Depression is presented in Table 10. The overall regression analysis was significant, $R^2 = .13, F(2, 117) = 8.30, p = .001$. The beta coefficients were positive and significant for spiritual well being. These results indicate that higher levels of spiritual well being were associated with higher levels of depression.

Table 10

**Multiple Regression Analysis for Depression**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE B$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual well being</td>
<td>.078</td>
<td>.021</td>
<td>.318</td>
</tr>
<tr>
<td>SLE score</td>
<td>.028</td>
<td>.015</td>
<td>.162</td>
</tr>
</tbody>
</table>

**TSC Sleep Disorders.** Multiple regression analysis results for TSC Sleep Disorders are presented in Table 11. The overall regression analysis was significant, $R^2 = .11, F(2, 117) = 7.41, p = .001$. The beta coefficients were positive and significant for SLE and spiritual well being, so a significant multivariate relationship was found between these variables. These results indicate that higher levels of SLE and higher levels of spirituality were associated with higher levels of sleep disorder. A multiple correlation of .34 was found between sleep disorder SLE>0 and spiritual well being.
Table 11

*Multiple regression analysis for TSC Sleep Disorders*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE &gt; 0</td>
<td>.308</td>
<td>.123</td>
<td>.218</td>
</tr>
<tr>
<td>Spiritual well being</td>
<td>.064</td>
<td>.023</td>
<td>.249</td>
</tr>
</tbody>
</table>

*TSC Sexual Problems.* The overall regression analysis was not significant, $R^2=.04$, $F(2,117) = 2.66, p = .07$. The beta coefficient was not significant for SLE. A significant beta coefficient was found for spiritual well being (see Table 12).

Table 12

*Multiple Regression Analysis for TSC Sexual Problems*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE &gt; 0</td>
<td>.095</td>
<td>.102</td>
<td>.084</td>
</tr>
<tr>
<td>Spiritual well being</td>
<td>.039</td>
<td>.019</td>
<td>.188</td>
</tr>
</tbody>
</table>

*Hypothesis 3*

Higher levels of spirituality will be associated with lower levels of traumatic stress, after controlling for traumatic/stressful life experiences. Hierarchical multiple regression analysis was used to analyze this hypothesis. TSC total score was the dependent variable. Data were also obtained for TSC subscales. SLE scores (Method 1)
were entered on the first step, and spiritual well being scores were entered on the second step. The beta coefficients at the first and second steps are presented to evaluate the impact of spirituality on trauma symptoms after controlling for the effects of traumatic life experiences. The multiple correlation is presented to determine if spiritual well being accounted for significant additional variance in trauma symptoms after variance is accounted for by stressful life experiences.

Hierarchical multiple regression analysis was used to analyze this hypothesis. The researcher determines the order of entry of variables into the regression equation. As a result, each independent variable is assessed in terms of what it adds to the equation at its own point of entry (Tabachnick & Fidell, 1996).

Hierarchical Multiple Regression Analysis Results for Total TSC Scores

The hierarchical multiple regression analysis results for total TSC, when SLE was entered at the first step, resulted in a significant regression equation, \( R^2 = .03, F(1, 118) = 3.96, p = .04 \). The dependent variable is TSC total score. The correlation between SLE and TSC total scores was .18.

When spiritual well being was added at the second step, the regression equation was significant, \( R^2 = .10, F(2, 117) = 6.48, p = .002 \), and the multiple correlation increased to .31, which indicates that 9.6% of the variance and total trauma symptoms was explained by SLE and spiritual well being. The beta coefficient for SLE was significant at Step 1 and Step 2. The results are displayed in Table 13.

When spiritual well being was added at the second step, its beta coefficient was significant.
Table 13

*Hierarchical Multiple Regression Analysis for Total TSC Scores*

<table>
<thead>
<tr>
<th>Model (Constant)</th>
<th>β</th>
<th>SE B</th>
<th>B</th>
<th>R</th>
<th>$R^2$</th>
<th>$R^2_\Delta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SLE</td>
<td>.180</td>
<td>.058</td>
<td>.115</td>
<td>.18</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>2 SLE</td>
<td>.189</td>
<td>.056</td>
<td>.120</td>
<td>.31</td>
<td>.07</td>
<td>.10</td>
</tr>
<tr>
<td>Spiritual Well Being</td>
<td>.259</td>
<td>.078</td>
<td>.231</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These results were not in accordance with the predicted direction of hypothesis 3. Data were also obtained and reviewed for the TSC subscales.

*Hierarchical Multiple Regression Analysis Results for Anxiety*

The hierarchical multiple regression analysis results for anxiety when SLE was entered at the first step, resulted in a non-significant regression equation, $R^2=.02$, $F(1,118) = 2.56, p = .113$. The correlation between SLE and anxiety was .14. When spiritual well being was added at the second step, the regression model remained non-significant, $R^2=.05$, $F(2,117) = 2.76, p = .07$. The beta coefficients in the regression model were not significant at steps 1 and 2.

*Hierarchical Multiple Regression Analysis for Depression*

The hierarchical multiple regression analysis results for depression when SLE was entered at the first step, revealed a non-significant regression equation, $R^2=.02 F(1,118)$
The correlation between SLE and depression was .15. When spiritual well being was added at the second step, the regression equation was significant, $R^2 = .12, F(2, 117) = 8.30, p = .001$, and the multiple correlation increased to .35. This indicates that 12.25% of the variance in depression was explained by SLE and spiritual well being. The beta coefficient for SLE was not significant at step 1 and step 2. When spiritual well being was added at the second step, its beta coefficient was significant. These results indicate that the inclusion of spiritual well being in this regression model resulted in significance.

Table 14

*Hierarchical Multiple Regression Analysis for Depression*

<table>
<thead>
<tr>
<th>Model</th>
<th>(Constant)</th>
<th>β</th>
<th>SE $B$</th>
<th>$B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SLE</td>
<td>.152</td>
<td>.016</td>
<td>.026</td>
</tr>
<tr>
<td>2</td>
<td>SLE</td>
<td>.162</td>
<td>.015</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>Spiritual well being</td>
<td>.318</td>
<td>.021</td>
<td>.078</td>
</tr>
</tbody>
</table>

*Hierarchical Multiple Regression Analysis Results for Sexual Abuse Trauma*

The hierarchical multiple regression analysis results for sexual abuse trauma when SLE was entered at the first step revealed a non-significant regression equation, $R^2 = .02, F(1, 118) = 2.49, p = .11$.

When spiritual well being was added at the second step, the regression equation remained non-significant, $R^2 = .05, F(2, 117) = 2.85, p = .06$. 
**Hierarchical Multiple Regression Analysis Results for Sleep Disorder**

The hierarchical multiple regression analysis results for sleep disorder when SLE was entered at the first step revealed a significant regression equation, $R^2=.05 \, F(1,118) = 6.95, p =.009$. The correlation between SLE and sleep disorder was .23. When spiritual well being was added at the second step, the regression equation remained significant, $R^2=.13, \, F(2,117) = 8.33, p =.001$, and the multiple correlation increased to .35. This indicates that 12.25% of the variance in sleep disorder was explained by SLE and SWB. The beta coefficients for SLE were significant at step 1 and step 2. When spirituality was added at the second step, its beta coefficient was significant. The inclusion of spirituality in this regression model accounted for additional variance. It indicated that higher levels of spirituality were associated with higher levels of sleep disorder.

Table 15

**Hierarchical Multiple Regression Analysis for Sleep Disorder**

<table>
<thead>
<tr>
<th>Model</th>
<th>(Constant)</th>
<th>$\beta$</th>
<th>SE B</th>
<th>B</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SLE</td>
<td>.236</td>
<td>.017</td>
<td>.044</td>
<td>.23</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>2</td>
<td>SLE</td>
<td>.245</td>
<td>.016</td>
<td>.045</td>
<td>.35</td>
<td>.13</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Spiritual well being</td>
<td>.263</td>
<td>.023</td>
<td>.068</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hierarchical Multiple Regression Analysis Results for Sexual Problems**

The hierarchical multiple regression analysis results for sexual problems, when SLE was entered at the first step, revealed a non-significant regression equation,
$R^2=0.00, F(1,118) = .03, p = .85$. The correlation between SLE and sexual problems was .17. When spiritual well being was added at the second step, the regression equation remained non-significant, $R^2=.04, F(2,117) = 2.24, p = .11$. When spirituality was added at the second step, its beta coefficient was significant but not of sufficient magnitude to result in a significant regression model.

Summary

The purpose of this study was to examine the following hypotheses. The first hypothesis states that greater exposure to stressful/traumatic life experiences will be positively correlated with higher levels of trauma symptoms. The second hypothesis states that spirituality and exposure to stressful life experiences are significant predictors of trauma symptoms. Finally, the third hypothesis states that higher levels of spirituality will be associated with lower levels of traumatic symptoms, after controlling for stressful life experiences.

Significant correlations were presented indicating relationships between the criterion and predictor variables. Stressful Life Experiences (SLE) scores showed a significant positive correlation with total TSC total scores. In addition, significant correlations were found between spiritual well being and TSC total scores.

The first hypothesis was supported. Greater exposure to stressful life experiences was positively and significantly correlated with higher levels of trauma symptoms.

The second hypothesis indicated that higher levels of SLE and higher levels of spiritual well being were associated with higher levels of total TSC scores.

The third hypothesis predicted that higher levels of spirituality would be associated with lower levels of traumatic stress, after controlling for stressful life experiences.
Results revealed that the relationship among these variables was not in the predicted direction; therefore, this hypothesis was not supported.
Chapter V
DISCUSSION

This chapter reviews the major results obtained from the statistical analysis and discusses them in the context of previous research. The inferential results in relation to the three hypotheses of this study are also presented, and the limitations of the study are reviewed. Finally, future directions for practice and research are examined.

The purpose of this study was to explore the relationship between spiritual well-being, trauma symptoms, and stressful life experiences. Many studies have been conducted to investigate spirituality and stressful life experiences, but few have focused on the relationship of spirituality, traumatic stress symptoms, and stressful life experiences. For example, Lee and Waters (2003) found that spiritual well-being can act as a buffer to traumatic stress associated with cumulative or multiple exposure to traumatic stressors. Other studies examined domains such as physiological processes, social support, mental health, anxiety, and re-hospitalization outcomes (Davis et al., 2003; Larson et al., 1998).

Clients generally identify and explore their values during therapy, and many of them have affirmed that their most important core values are spiritual in nature. Research has suggested that individuals who value spirituality have a coping resource to reduce the effects of major life events or stressors (Graham et al., 2001; Koenig et al., 2001; Spaniol, 2001, 2002).

Lee and Waters (2003) established the basis for the current study. In Lee and Waters study, the authors examined the role of spirituality as a possible protective
factor in the relationship between lifetime traumatic stressors and trauma symptoms in an adult population. Lee and Waters' (2003) study was conducted soon after the September 2001 terrorist attacks. On the other hand, the current research was conducted 3 years after the September 2001 terrorist attacks. This chapter will summarize the method and conclusions for the current study. Theoretical and clinical implications and limitations will be discussed as well.

Hypotheses

Hypotheses that guided this research are as follows: H1: Greater exposure to stressful/traumatic life experiences will be positively correlated with higher levels of trauma symptoms. H2: Spirituality and exposure to stressful life experiences would be significant predictors of trauma symptoms. H3: Higher levels of spirituality will be associated with lower levels of traumatic stress, after controlling for stressful life experiences.

The instruments utilized to measure the variables studied were the Spiritual Well Being Scale (Paloutzian & Ellison, 1982), Trauma Symptom Checklist and the subscales TSC Dissociation, TSC Anxiety, TSC Depression, TSC Sexual Abuse Trauma, TSC Sleep Disturbance, TSC Sexual Problem, (Briere & Runtz, 1989), and The Stressful Life Experiences Screen Scale (Stamm et al., 1996).

The first hypothesis stated that greater exposure to stressful/traumatic life experiences will be positively correlated with higher levels of trauma symptoms. Total SLE scores showed a significant positive correlation with total TSC scores ($r = .18$, $p = .05$). The hypothesis was supported. Individuals who reported frequent stressful life events also reported frequent levels of
stress/trauma. In addition, SLE scores were significantly related to higher levels of TSC Anxiety, TSC Depression, and TSC Sleep Disorder. Stressful life experiences were not related to TSC dissociation, TSC sexual problems, and TSC sexual abuse trauma.

The second hypothesis indicated that higher levels of Stressful Life Experiences scale scores and higher levels of Spiritual Well-Being scale scores were associated with higher levels of total Traumatic Symptom scale scores.

Analysis revealed that the second hypothesis was partially supported, and results appeared in the predicted direction. Stressful life experiences and some traumatic symptoms correlated positively. For individuals who experienced a greater level of stressful life experiences it is also likely they experienced trauma symptoms.

The third hypothesis posited that higher levels of spirituality would be associated with lower levels of traumatic stress after controlling for stressful life experiences. However, some of the results of hypothesis testing revealed that the relationship among these variables was not in the predicted direction. This finding may have occurred due to other factors such as; personality, different views of religion, and possible attachment issues. Some of the trauma symptoms from the TSC subscales were associated with lower levels of traumatic stress, after controlling for stressful life experiences. More specifically, greater levels of spirituality were associated with higher levels of sleep disorder, sexual problems, and depression. In this sample of 120 participants, significant correlations were found, indicating relationships between the criterion and predictor variables.

The Stressful Life Experiences scores showed a significant positive correlation with
total TSC scores. Additionally, Stressful Life Experiences scores greater than zero (SLE>0) demonstrated positive significant relationships with the TSC Anxiety ($r = .18, \ p=.05$) TSC Depression, ($r = .19, \ p=.03$), and TSC Sleep Disturbance subscales ($r= .22, \ p=.05$).

Conclusions

_Hypothesis I_

The first hypothesis stated that greater exposure to stressful/traumatic life experiences will be positively correlated with higher levels of trauma symptoms. Total SLE scores showed a significant positive correlation with total TSC scores. The hypothesis was supported. Individuals who reported greater stressful life events also reported greater levels of stress/trauma. Stressful life experiences/trauma symptoms were not related to dissociation, sexual problems, and sexual abuse trauma.

In addition, SLE > 0 scores were correlated to TSC anxiety, TSC Depression, TSC Sleep Disorder, and TSC total scores. Individuals who tend to experience high levels of anxiety, depression, and sleep problems often are experiencing stressful life experiences. These levels might be generated as a direct result of stressful events that have occurred in the past or the present.

_Hypothesis II_

The second hypothesis revealed that spirituality and exposure to stressful life experiences were significant predictors of traumatic stress symptoms. Results
may be interpreted to suggest that individuals tend to seek spirituality when they are experiencing traumatic symptoms. Pargament (1997) suggested that individuals make use of their religious and spiritual beliefs and experiences when they are managing stressful events and they were accompanied with emotional distress.

Spiritual well being scores showed a significant positive relationship with TSC Depression scores, TSC Sleep Disturbances scores, and TSC total scores. In a regression analysis, the beta coefficients were positive and significant for stressful life experiences and spiritual well being. Using standard multiple regression analysis, the dependent variables were the scales of the TSC scores, and the predictors were the Stressful Life Experience scores and Spiritual Well Being Scores. The results indicated that higher levels of spirituality were associated with higher levels of depression. This may suggest that individuals tended to seek spirituality when they were already experiencing symptoms of depression.

In addition, the multiple regression analysis results revealed that higher levels of SLE and higher levels of spirituality were associated with higher levels of sleep disorder. Moreover, higher levels of SLE and higher levels of spirituality were associated with higher levels of total TSC scores.

Additional perspective related to levels of spirituality.

A portion of literature reveals that there is another aspect that warrants further study. For many people of faith the comforting images of God were tragically altered following the attacks of September 11, 2001. The events that took place that morning touched people spiritually. The struggle from the very beginning of the disaster was
the sense of detachment among people who began to doubt in their own beliefs of this
God that watches over and protects us. What kind of God is this? Is this the God I
believed in, will I be able to believe in this God again? These questions and more like
then have been pondered thousands of people since the 9/11 attacks (Whitney, 2002).

Several religious practitioners and educators have shared their profound life
changing experiences either through their efforts in volunteering, for example at
Ground Zero, or by their interaction with people who experienced the attacks. For
example, Reverend Joseph Griesedieck, (as cited in Whitney, 2002) an Episcopal priest,
who volunteered at Ground Zero in the days after Sept. 11, expressed that the
perception of God for many people was one that was strong, secure, and consistent.
After September 11, the face of God was in question with regard to many people’s
perceptions. God could not be counted on in the way some thought God could be
counted on. These are thoughts that came to the reverend’s mind and to many others as
well (Whitney, 2002). Additionally, Brad Hirschfield (as cited in Whitney, 2002) an
Orthodox rabbi, struggled with his own image of God. Rabbi Hirschfield commented in
his public interview that his view of a very nurturing and caring God was changed and
created in him disappointment.

The 9/11 events that led to the loss of thousands of innocent people and hundreds of
thousands of people who mourned their death resulted in a spiritual crisis. It seems that
may have resulted in traumatic experiences with endless stressful life experiences that
are remembered through anniversaries, birthdays, and previous existent memories.

Hypothesis 3

Hierarchical multiple regression was used to analyze this hypothesis. TSC
scales were the dependent variables for each analysis including the Total TSC scores and every TSC subscale scores. The SLE scores were entered on the first step, and spirituality scores were entered on the second step. This analysis was conducted to evaluate the impact of spirituality on trauma symptoms after controlling for the effects of traumatic life experiences.

The correlation between SLE and depression was significant when spiritual well being was added at the second step. Results indicated that the inclusion of spirituality in this regression model resulted in significance. However, results were not in accordance with the third hypothesis that indicated that higher levels of spirituality will be associated with lower levels of traumatic stress, after controlling for traumatic/stressful life experiences. Additionally, results appeared non-significant in relation to scores from TSC Anxiety subscale and SLES scale scores in relation to spiritual well being. Individuals could have perceived the anxiety as part of the daily living stressful experience, but they did not attribute meaning to the spiritual factor.

The inclusion of spirituality in the statistical analysis using the regression model indicated a significant correlation between SLE and TSC Sleep Disorder. Results indicated that higher levels of spirituality were associated with higher levels of sleep disorder. This suggested that individuals who experienced sleeping problems might tend to search for spirituality. Results may also indicate that individuals may seek spirituality when they are traumatized or/stressed.

The impact of spirituality as buffering or protective factor during traumatic stress is important; however, it raises a question in terms of understanding
the role and functioning of spirituality as a protective factor. In relation to this study, the analysis of data obtained from participants who were exposed to traumatic events in the months immediately after the terrorist attacks of September 2001, will be more likely to reveal higher scores in regards to trauma symptoms and spirituality after controlling for traumatic stress than those that were exposed 3 years later.

**Spirituality/religion impact over time.** A significant proportion of the U.S. population, immediately after the terrorist attacks, sought spirituality because spirituality was likely seen as a measure of protection against distress at that time. In December 2001, 71% of the voluntary participants reported in Gallup surveys that spirituality/religion was increasing its influence in American life. Gallup (2007) revealed that 32% of the U.S. population was inclined to be influenced by religion. However, more than 3 years later, 61% of the U.S. population reported that spirituality/religion was losing its influence.

The data for this study were collected in 2004, and the intensity and frequency of individuals seeking religion/spirituality may have decreased its influence over the years.

**Theoretical Implications of Research Findings**

The findings of this study conform to the theoretical basis for this research. For example, Wilson and Moran (1998) posited that traumatic stress is related to spirituality. Lee and Waters (2003) also discussed the impact of stressful life experiences and spiritual well-being on trauma symptoms in a sample of 61
graduate and undergraduate male and female college students between the ages of 17 and 55. Lee and Waters (2003) found that spiritual well-being can act as a buffer to traumatic stress associated with cumulative or multiple exposure to traumatic stressors.

Sprang (2000) examined respondents’ coping styles in the development of traumatic stress symptoms. Results indicated that participants had been indirectly exposed to stressful life experiences. According to Sprang, individuals who had high levels of avoidance coping style would have higher levels of distress. Moreover, this study did not consider one important aspect, the religious/spiritual dimensions of the respondents’ coping styles.

McCann and Pearlman (1992) discussed that based on the constructivist self-development theory (CSDT) consideration needs to be given to individual differences regarding adaptation to trauma. Participants may adopt spiritual well-being to significant dimensions of health, and others will not be inclined to adopt it.

Additionally, Pearlman (1998) suggested that CSDT may help explain and delineate the aspects of the self that are impacted by trauma. The theory rises from the interaction of the aspects of the individual, including his or her psychological resources, defenses, and needs. In addition, the construct schema underlies the social cognition tradition, a construct that is largely derived from Piaget’s cognitive developmental theory. Schemas have been broadly defined as assumptions and beliefs about the self and world. CSDT has been utilized in assessing and treating traumatized individuals. The life experiences that are
collected in our memories directly impact our views toward spirituality/religion.

They can be positive and negative experiences bringing meaning to what we believe and what we attach meaning to in our lives. The CSDT theory is interactive and is based on perspective.

Finally, research shows that spirituality has received an enormous amount of attention over the past years. A growing amount of quantitative research points to the potential relevance of patient spirituality/religion to physical and mental health (Larson & Larson, 2003). Individuals who both participated in a religious group and valued their religious faith were at a substantially reduced risk of depressive disorder, whereas people without any religious links might raise their relative risk of major depression by as much as 60% (Larson & Larson, 2003). Lack of organizational religious involvement was linked with a 20-60% increase in the odds of experiencing a major depressive episode.

Clinical Implications for Practice and Training

Results of the study may have clinical implications for counseling practice and training purposes. One of the most important aspects in relation to practice is how the practitioner is familiarized with the concept of spirituality. Individuals who are exposed to stressful life experiences can also experience high levels of trauma symptoms. The counselor would need to explore if the stressful life experiences have meaning for the client, and if the meaning comes accompanied with his/her views of spirituality. Many individuals that reenact negative experiences have been triggered by trauma symptoms. The trauma symptom may be linked to actual
stressful life experiences as well.

It is crucial to consider in clinical settings how individuals interpret spirituality as a coping mechanism and what meaning they ascribe to this concept. For example, how to use spiritual counseling with special problems, such as grief, divorce, natural disasters, addictions, and terminal illnesses. Moreover, results of this study revealed that higher levels of spirituality is associated with lower levels of trauma symptoms. Therefore, the most important aspect of incorporating spirituality is to be able to utilize spirituality as a coping mechanism.

In addition, practitioners would have to see how spirituality is utilized in their own lives as a resource, one that facilitates or hinders an individual's management of personal events. The integration of spirituality in any informal or formal training should be considered in any educational program curriculum. It is also important for professionals to take into consideration that it is necessary to understand the individual differences in adaptation to trauma in relation to clinical practice for counseling (McCann & Pearlman, 1990).

Sperry (2001) presented that clients may exhibit feelings of being unloved. The process of uncovering what our clients' beliefs are, it is important. The function of the counselor would be to wisely incorporate those beliefs into the clinical setting.

Additionally, Fallot (2001) described how the spiritual needs of patients with severe mental disorder can be addressed as part of their treatment. Some of the interventions include making a spiritual journal log, and exploring spiritual needs in individual psychotherapy. Once the illness is stabilized, it is necessary to connect the patient to communities of faith as spiritual resources.
Recommendations for Future Research

The findings of the present study suggest the following areas for future research.

First, further comparative studies of the relationships between spiritual well-being, trauma symptoms, and stressful life experiences should be performed, considering a larger and more heterogeneous sample such as participants from community colleges and public educational institutions.

Second, other instruments should be used to measure the relationship between spiritual well-being, stressful life experiences, and traumatic symptoms. With regard to the SLES scale, research revealed that the instrument is still under research and it is sensitive to change across time. It is important to take into consideration the individual’s perception of what is a stressful event.

According to Stamm et al. (1996), the SLES screens for major life events that could be stressful or important in a person’s life. Moreover, preliminary self-report on the SLES presented that further research is warranted on this instrument. In fact, the instrument was still under review at the moment of its utilization for this study. However, in spite of what was mentioned above the SLES authors seemed convinced that designing measures based on theoretical orientation that stressful events can motivate growth in positive or negative ways depended on the person-event interaction (Stamm et al., 1996).

Third, as this study did not focus on spirituality as a means of coping, future studies should examine it with stressful life experiences as a coping mechanism. The study of coping as it relates to the amelioration of traumatic stress, and
the lack of standardized measures of coping as well as different measures used to measure traumatic stress make drawing conclusions premature at this time. For future investigation, it is necessary to consider that coping is a key element that must be addressed in the prevention of traumatic symptomatology, and that coping strategies may be related to signs of traumatic stress (Lazarus & Folkman, 1984). This would facilitate generalizations.

Fourth, longitudinal studies might be helpful regarding the long-term outcomes of spirituality as a coping mechanism for stressful life experiences. Research with a more stringent methodology, with the inclusion of a matched control group, may suggest another perspective from the individual's levels of stressful life experiences and their coping style over a period of time. For example, such a study would include a subject pool with similar age, ethnicity, education, religion and employment status, but would differ on the spiritual beliefs (example: believers vs. non-believers).

Fifth, a variable that is important and need to be considered for future research is attachment style.

Sixth, future researchers should examine the possible mediating effects of spirituality in relation to stress along with the individual scale scores of the TSC.

Seventh, because participants were mental health professionals in training, results may not be generalized to individuals representing other occupations.

Finally, future studies should examine how participants assigned meaning to their traumatic experiences in accordance with their developmental experiences and perception of the concept of spirituality. People may have traumatic or negative
associations with religion, not just positive associations, due to other factors such as personality, different views of religion, and possible attachment issues.

**Limitations of the Study**

The findings of this study suggest the following limitations. Because Caucasians were the majority of participants, results may not be able to be generalized to other ethnic/racial groups.

Participants were recruited from a private Catholic educational institution in the Northeast. Therefore, results may not generalize to non-Catholic educational institutions or other areas of the country. The results also revealed that the age span between the participants was from 21 to 66; most participants were age 29 or younger. The results can be generalized to populations that are between 20 to 44 years old, mostly Caucasian, working full time, Catholic and that have a college degree as well.

Religion and spirituality are believed to increase with age (Emery & Pargament, 2004; Lewis, 2001; Moremen, 2005). In the 2000 and 2001 Gallup Polls, surveys suggested that religion was "very important" to 60% of the age group between the ages of 50 to 74 years old. The increased religiousness in older age may be attributed to the recognition that death is approaching (Moreman, 2005) or with the diagnosis of a terminal illness.

Additionally, all subjects with the exception of one indicated that they have someone close to talk to. Therefore, this result may have somewhat affected the results.

Generalizability of the results of this study also seemed limited by the possibility of a confounding variable. For example, serious health conditions were not assessed on this research.
Summary

This study suggested that spiritual well being may serve as a protective factor in relation to the exposure to stressful life experiences and trauma symptoms. In general, two of the three main hypotheses were confirmed. Stressful life experiences scores showed a significant positive correlation with total TSC scores.

In addition, significant correlations were found between spiritual well being and TSC total scores. Clinical implications and limitations of this study were also discussed. In terms of the clinical implications of these findings, mental health practitioners, should be aware of the positive effects that spirituality may offer on traumatic stress. There are other unexpected findings, that can also add a piece to the literature. Results of this study also suggested that the stressful life experiences that we experience in our lives, regardless, if the individual gives importance to the role of spirituality or not the individuals may still experience traumatic symptoms. There could be other factors that may contribute to decrease or increase in traumatic stress, and therefore, this can be clarified with future research.


Religiosity and alcohol behavior; An Exploration of Reference Group Therapy, 3 (2), 256.


Abuse and Neglect, 16, 391-398.


Fallot, R. (2001). The place of spirituality and religion in mental health services. New Directions for Mental Health Services, 91, 798.


Herman, J. (1997). *Trauma and recovery-The aftermath of violence from domestic abuse to political terror.* (2nd Ed). New York: Basic Books.


Levin, J. (1994). Religion and Health: Is there an association, is it valid, and is it causal? *Social Science and Medicine, 38*, 1475-1484.


American Psychological Association.


Rehabilitation, 25 (4), 321.


The National Institute for Healthcare Research. NIHR, (1993), Rockville, MN.


Van der Kolk, B., McFarlane, A., & Weisaeth, L., (1996). Traumatic Stress-
The effects of overwhelming experience on mind, body, and society. New
York/London: The Guilford Press.

analysis of research on religion in seven major American psychological
17, 220-232.

psychological challenges and religious invitations of adult life. Garden
City, New York: Doubleday & Company, Inc.

disorder and spirituality. Journal of Psychology and Theology, 26,(2)
168-178.


Appendix A

Informed Consent Form
Dear Participants,

My name is Mariannette Bonet and I am a doctoral student at Seton Hall University enrolled in the Professional Psychology and Family Therapy Department. I am currently working on research examining the relationship between spiritual well-being, stressful life experiences and traumatic stress. I am asking for your consent to participate in this research. Allow me to explain this project to you.

EXPLANATION OF RESEARCH AND DURATION OF STUDENT PARTICIPATION

The purpose of this study is to determine the relationship between spiritual well-being, stressful life experiences and traumatic stress. Students are asked to fill out the enclosed materials: The Spiritual Well-Being Scale, The Stressful Life Experiences Screen Short Form, The Trauma Symptom Checklist and a demographic data form.

DESCRIPTION OF PROCEDURE

As mentioned above, those interested would fill out three research instruments and a demographic data form. It should take approximately 20 minutes to complete these forms.

QUESTIONNAIRES OR SURVEY INSTRUMENTS USED IN THIS RESEARCH

1. Spiritual Well-Being Scale—is a 20 item questionnaire. Ten of the statements assess (religious well-being) and contain the word “God.” The next ten statements assess
(existential well-being) and have no religious connotation; they ask about satisfaction with life and relationship to others.

Example. I do not find much satisfaction in private prayer with God. (circle the best choice of your agreement or disagreement).

2. Stressful Life Experiences Screen-Short Form is a 20 item self-report questionnaire describing your experience in a stressful life event.

Example. I have witnessed or experienced a natural disaster, like a hurricane or earthquake. (choose from 0 to 10).

3. Trauma Symptom Checklist-40 items that evaluate symptomatology in adults arising from childhood or adult traumatic experiences. Subjects would rate how often they have experienced each in the last two months from 0 = never to 3 = very often.

Example. Headaches 0 1 2 3

4. Demographic Data Form-form that collects information regarding participant's background history.

Example. Age ________

PARTICIPATION IS VOLUNTARY

Participation in this study is strictly voluntary. Students can skip any items that they feel uncomfortable answering. Students can refuse to participate or withdraw from the study at any time. They can also request that their responses not be used in this study at any time.

PROTECTING PARTICIPANT'S IDENTITY

No names or identifying information are requested in any of the forms such as Demographic Data Form, Spiritual Well-Being Scale Form, Stressful Life Experiences
Screening: Short Form and Trauma Symptom Checklist TSC-40. This is to ensure that the data collected will in no way be linked to the participant’s identity.

DATA WILL BE KEPT CONFIDENTIAL

All data will be stored in a locked file cabinet to which only I will have access. Data will be stored separately from the consent forms. In this way, all of the participant’s answers will be kept confidential.

IN CASE OF ANY REASONABLY FORSEEABLE RISKS OR DISCOMFORTS

Although the questions presented in this study were not designed to be emotionally disturbing, some of the questions may deal with sensitive issues or experiences. If by participating in this study you experience anxiety and/or distress you may contact the campus counseling services or referrals to outside agencies.

a. Counseling Services  b. Catholic Charities  c. Counseling Services
   Mooney Hall  Somerville, N.J.  West Orange, N.J.
   973-761-9500  908-927-0869  973-731-6970

Director: Gail P. Pakalns

BENEFITS AND COMPENSATION FOR PARTICIPATING

Subjects who participate in this study will not receive any benefits.

ALTERNATIVE TO PARTICIPATION

If you decide not to participate, there are no penalties for that decision.

CONTACT INFORMATION

If you have questions regarding this study, you can contact me by calling the Seton Hall Department of Professional Psychology and Family Therapy at (973) 761-9451. I would be happy to answer your questions.

COPY OF INFORMED CONSENT FORM
This researcher will be giving a copy to each participant of the signed and dated Informed Consent Form.

APPROVAL OF THE INSTITUTIONAL REVIEW BOARD

This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research (IRB). The IRB believes that the research procedures adequately safeguard the subjects privacy, welfare, civil liberties and rights. The Chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the Office is 973-275-2974.

I have read the material above, and any questions I asked have been answered to my satisfaction. I agree to participate in this activity, realizing that I may withdraw without prejudice at any time.

________________________________________  Date
Subject
Please sign and return this consent form.
Appendix B

Demographic Data Form
DEMOGRAPHIC DATA FORM

Please respond to the following questions, this information will be used for statistical purposes.

Age__________ Gender: Male [ ] Female [ ]

Race/Ethnicity: Caucasian [ ] African American [ ] Hispanic [ ]
Asian [ ] Native American [ ] Arabic [ ] Other_______

Employed: Full time [ ] Part time [ ] Not working [ ]

Religion: Catholic [ ] Protestant [ ] Jewish [ ]
Hindu [ ] Muslim [ ] Buddhist [ ]
Other______ None_______

Present year of college________

Degree obtained__________
High School Diploma_________ B.S._________ B.A._________
M.A.___________ M.S.___________ Ed. S._________

Have you ever been in counseling or psychotherapy?
Yes__________
No__________

Is there at least one person in your life with whom you can talk things over?
Yes__________
No__________
Appendix C

Letter to the Professor
LETTER TO THE PROFESSOR

Dear Professor:

I am currently working toward a doctoral degree at Seton Hall University and at the present time I am conducting an study that examine the relationship between spirituality, stressful life experiences, and symptoms of stress or trauma. This research is under the guidance and supervision of Dr. Sandra S. Lee.

I would greatly appreciate it if you could ask your students if they would like to be part of this study. They will fill out three research instruments and a demographic data form. It should take approximately 20 minutes to complete these forms. All information that the students provide will remain anonymous.

If you want to know more about the study, you can reach me at 201-845-4770, or via e-mail, at Chantaljmb@aol.com.

Thank you in advance for your attention in this matter.

Yours Truly,

Mariannette Bonet, M.S.
Appendix D

Letter of Solicitation
LETTER OF SOLICITATION

My name is Mariannette Bonet. I am a doctoral student at Seton Hall University doing research on students who are enrolled in the graduate programs in the Department of Professional Psychology and Family Therapy. Your participation is completely voluntary, and you have every right not to participate or to withdraw from participation at any time. Not participating or withdrawing will in no way affect your scholarship or enrollment at this institution.

If you do choose to participate in this study, it will take approximately 20 minutes. You will be asked to fill out three questionnaires and a demographic data form. The questionnaires include: 1) The Spiritual Well-Being Scale, 2) The Stressful Life Experiences Screen Short-Form, and 4) The Trauma Symptom Checklist-TSC-40. The questions in the Spiritual Well-Being Scale are to be answered by circling an answer that best indicates the extent of your agreement or disagreement as it describes your personal experience. The Stressful Life Experiences Scale will be answered by selecting the number that best describes your experience from not at all to very much like. The Trauma Checklist has questions to be answered by circling an answer ranging from not at all to fairly often.

Your answers will be completely anonymous and confidential. No names or identifying information are requested. The purpose of the study is to examine the relationship between spirituality, symptoms of stress or trauma and stressful life experiences.

If you are interested in participating, please read the enclosed consent form. Once your questions are answered to your satisfaction, and should you decide to participate, please read and sign the Consent Form before beginning.

Follow the instructions on each instrument. Do not put your name on any materials. When you are finished, tear off this page to keep and place all other materials in the envelope provided. Place the envelope in the box at the front of the classroom.

This project has been reviewed and approved by the Seton Hall University Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subjects’ privacy, welfare, civil liberties and rights. The Chairperson of the IRB may be reached at 973-275-2974.