The Relationship between Spirituality and Personality

Kimberly C. Koessel

Western Michigan University

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THE RELATIONSHIP BETWEEN
SPIRITUALITY AND
PERSONALITY

by

Kimberly C. Koessel

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Counseling Psychology and Counselor Education
Advisor: Joseph R. Morris, Ph.D.

Western Michigan University
Kalamazoo, Michigan
December 2011
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Kimberly C. Koessel, Ph.D.

Western Michigan University, 2011

Current literature is lacking a theoretical framework for understanding spirituality within the context of psychological functioning. Despite empirical support for the potential psychological benefits of spirituality, conceptual differences underlying definitions and measurements of spirituality have impeded theory development. Additionally, very few studies have explored spirituality from a secular perspective. The purpose of this dissertation is to examine the relationship between spirituality and personality within a population of undergraduate and graduate students. This research obtains sample data through a demographic questionnaire, a measure of humanistic spirituality, and an inventory of normal personality. Quantitative statistical analyses are employed to explore a variety of relationships between variables.

Findings in the current study support those of previous research and suggest that spirituality and personality are related in a multidimensional manner. It appears that a significant amount of spiritual orientation can be “predicted” or explained by a combination of factors of normal personality. It remains unclear as to whether or not spirituality is influenced by personality, if personality influences the development of spiritual orientation, or if these two constructs are largely independent of one another. Overall, results of this study provide insight into the manner in which personality and
a more secular type of spirituality are related. Additional research using similar measurements will likely add further clarification to this field and help advance the development of a psychological theory of spirituality.
ACKNOWLEDGMENTS

There are a number of individuals that I would like to personally acknowledge for their encouragement and support throughout my doctoral studies. First and foremost, none of this would have been possible without Dr. Joseph R. Morris, my academic advisor and dissertation chairman. Dr. Morris has demonstrated unwavering faith in my personal, professional, and academic abilities since I first began my graduate training. He provided me with unwavering support, thoughtful feedback, countless opportunities for professional growth, and endless amounts of encouragement. I am deeply grateful for, and appreciative of, the outstanding mentorship and guidance that Dr. Morris has offered me throughout my entire doctoral training program. I would also like to extend my sincerest gratitude to Dr. Stephen E. Craig and Dr. C. Dennis Simpson for their dedication, commitment, feedback, and service as members of my doctoral committee.

I possess an immeasurable amount of appreciation for my parents, Jim and Carlee Koessel, and for my brother, Brian Koessel, for all of the love and support with which they have provided me throughout my entire life. They each serve as exceptional role models for me and I credit them with everything that I have become and achieved thus far in my life. They have taught me that no dream is beyond my reach and they have offered me tremendous amounts of encouragement and support in each and every one of my personal and professional pursuits. I would also like to acknowledge my deep gratitude for my extended family: each of my grandparents,
aunts and great aunts, uncles and great uncles, and my cousins. Together, they have
provided me with an unflinching network of love and encouragement that sustains me
in all that I do. Regardless of the physical distance between us, I am genuinely blessed
to be able to say that I have never felt a lack of love or support from my family.

I would also like to extend my heartfelt appreciation to my personal friends
and my graduate classmates who have been a great source of strength, support, and
stress relief throughout my graduate education and professional development. My
sincerest thanks go out to each of you; I would list you all by name but, if you are
reading this, you already know who you are!

To my military family, I am eternally grateful to you for so many wonderful
and different reasons. I have an infinite amount of respect and appreciation for Dr.
Angela Steele, one of my former clinical supervisors. Dr. Steele was an exceptional
supervisor, unwavering advocate, and a great source of both personal and professional
support for me. Further, I would like to extend my gratitude and deep respect for my
former Director of Training, Dr. Brian D. O’Leary. He provided me with endless
opportunities for professional growth as both a psychologist and as a commissioned
officer in the United States Army. Dr. O’Leary truly leads by example and
infectiously inspires others to do the same. I would also like to acknowledge the
remainder of my former supervisors at Tripler Army Medical Center (TAMC) for the
unique contributions each has made to both my personal and professional
development. To my former TAMC peers and colleagues, my heartfelt thanks are
Acknowledgments—continued

extended to each and every one of you for the support, encouragement, and laughs that you each have shared with me. I am deeply honored to serve alongside you, some of the best and brightest junior medical officers in the Army.

Finally, I would like to acknowledge the Service Members of our nation’s Armed Forces. There is not a day that goes by that I do not feel an immense sense of honor and gratitude for the opportunity to serve alongside with, and to use my clinical skills to help, our nation’s Service Men and Women. To my patients and clients, I extend my most sincere appreciation to you. The opportunity to listen to, and be entrusted with, your most personal and painful experiences is my greatest privilege; to journey with you through both your tears and triumphs, is my deepest honor. You are truly the reason that I do what I do; your courage and your strength continue to inspire me day after day.

Kimberly C. Koessel
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CHAPTER I

INTRODUCTION

William James’ (1902/1985), *The Varieties of Religious Experiences*, is widely considered to be the pioneering work in the psychology of religion (Emmons & Paloutzian, 2003; Hill & Pargament, 2003; Kelly, 1995; Powers, 2005). James described religious experiences in a broadly inclusive manner, consisting of a flow of energy which arises into consciousness, and occurring in both secular and traditional religious settings (James, 1902/1985). Largely divergent from James’ position, Sigmund Freud also offered his perspective on religion. In short, Freud equated religion with neuroses, held that religious beliefs were merely an expression of childhood conflict, and believed that religion was simply an illusion (Freud, 1927/1964).

The paradigm shift from the psychoanalytic tradition to behaviorism, and the emphasis placed upon the scientific study of observable phenomena, left little room for religion within the evolving field of psychology (Hothersall, 2004; Powers, 2005). As psychology attempted to gain credibility as a scientific discipline, variables that could not be easily observed and quantified were widely neglected in both new research and new theories (Hothersall, 2004). With the introduction of existentialism and humanism, between the 1960s and 1970s, the field experienced another shift in paradigm. This “third force” in psychotherapy concerned itself with the subjective experiences of individuals and was interested in personal concepts such as values,
sense of meaning and purpose in life, freedom and autonomy (Corey, 2001). Out of this shift, humanistic psychology emerged and variables of a spiritual nature resurfaced as important areas for psychological study (Powers, 2005).

Over the past 40 years, spirituality and religion have received growing attention within the field of psychology. In recent years, there has been a substantial increase in literature published pertaining to the conceptualization, measurement, and psychological correlates of spiritual and religious variables (Emmons & Paloutzian, 2003; Hall, Dixon, & Mauzey, 2004; Hill & Pargament, 2003; MacDonald, 2000; Miller & Thoresen, 2003; Powers, 2005; Richards & Bergin, 2005; Zinnbauer, Pargament, & Scott, 1999).

Some argue that religion and spirituality are part of an inclusive view of multiculturalism and consistent with the direction of postmodern culture (Sue & Sue, 2008; Worthington, Kurusu, McCullough, & Sandage, 1996). Hayes (2009) hypothesizes that the revival of interest in spirituality in the late 20th and early 21st centuries is the result of a larger cultural and intellectual trend away from scientific explanations toward a more organic conception of reality. Others have identified spirituality as “an emerging fifth force in counseling and psychotherapy” (Stanard, Sandhu, & Painter, 2000, p. 6).

Whatever the reason for this rising interest, it has become increasingly clear that a culturally attentive psychology must make the distinction that spirituality is a fundamental aspect of the human condition (Sue, Bingham, Porché-Burke, & Vasquez, 1999). As such, it deserves concerted research attention to further our
understanding of the manner in which spirituality permeates our daily lives and influences psychological functioning. To provide some additional context for this rising interest in the numinous, a brief review of professional proceedings related to religion and spirituality follows.

Background Information

In 1976, Division 36 of the American Psychological Association (APA) was formed to promote the Psychology of Religion (Emmons & Paloutzian, 2003; Miller & Thoreson, 2003). In 1992, Sue, Arredondo, and McDavis published an article which compelled psychologists to address issues of competence with regards to diversity, including religious and spiritual beliefs. In 1994, the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* introduced “Religious or Spiritual Problems” as a condition that may be the focus of clinical attention (American Psychiatric Association, 1994).

In 1998, as president of the APA, Martin Seligman called upon psychologists to shift their attention away from mental illness and client deficits and to redirect their clinical focus to the building upon of individuals’ strengths. Seligman is credited with fueling the positive psychology movement and the subsequent emergence of a growing body of research on life-enhancing variables, including spirituality (Richards & Bergin, 2005; Seligman, 2002; Seligman & Csikszentmihalyi, 2000). Since its emergence as a subspecialty of psychology, positive psychology has sought to locate a number of human strengths and virtues within a comprehensive taxonomy in order to better understand the impact that they have on overall mental health. Some of the
variables that have been identified as life-enhancing include love, hope, forgiveness, humility, gratitude, self-control, and wisdom (Peterson & Seligman, 2002; Seligman, 2002; Seligman & Csikszentmihalyi, 2000). Positive psychology, in part, seeks to facilitate the development of these virtues as a means of coping with and preventing psychological distress (McCullough & Snyder, 2000; Peterson & Seligman, 2002; Richards & Bergin, 2005; Seligman & Csikszentmihalyi, 2000).

In 2002, the APA adopted the Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists which are largely based upon the 1992 work of Sue, Arredondo, and McDavis (APA, 2002). Among other equally salient issues, these guidelines explicitly address the need for psychologists to recognize, and be sensitive to, the impact that spiritual orientations and religious traditions have upon our clients and their worldviews (APA, 2002). Similarly, others would add, that if we are to understand the whole person, we must include that which is meaningful to the individual, that which brings growth and transcendence to their life, that is, spirituality (Ozer & Benet-Martínez, 2002).

Altogether, these events provide an abbreviated professional timeline and a backdrop which briefly highlights how spirituality, a construct once regarded as an immeasurable anomaly, has become increasingly relevant to, and prevalent within, the field of psychology.

Rationale for the Current Study

The rise in professional attention given to spiritual and religious variables over the last three decades has coincided with a sharp increase in the psychological study
of these constructs (MacDonald, 2000; Miller & Thoresen, 2003; Powers, 2005; Richards & Bergin, 2005). In the decade between the 1960’s and the 1970’s, Powers (2005) found that counseling and spirituality literature increased more than tenfold. Since that time, the prevalence of spiritual variables in psychological research has continued to experience steady growth (Emmons & Paloutzian, 2003; MacDonald, 2000; Miller & Thoresen, 2003; Powers, 2005; Richards & Bergin, 2005).

Despite the increasing frequency with which studies of spirituality appear in scholarly journals, Hill and Pargament (2003) note that spirituality has been understudied within the field of psychology. Similarly, Ho and Ho (2007) contend that the role of spirituality in psychological well-being has been widely ignored in the literature and argue for a reintegration of spirituality within contemporary psychology. Spirituality is not a new concept within the field of psychology; as Miller and Thoresen (2004) note, “spirituality and health have long been intertwined in philosophic and healing traditions that form the ancestry of the discipline of psychology” (p.55).

Decades ago, Viktor Frankl (1959/2006) argued for an approach to mental health that embraces the spiritual qualities of life. Spirituality can influence the manner in which individuals make meaning and guide the direction of their lives (Frey, Daaleman, & Peyton, 2005; Ho & Ho, 2007). In fact, the search for meaning in life has been described as a core psychological need (Frankl, 1959/2006) while others, similarly, contend that “spirituality is critical for sound mental health and effective growth and development” (Stanard et al., 2000, p. 6).
Spirituality lies at the core of individuals' value system and fosters the development of worldviews (Ho & Ho, 2007); it can provide a great source of strength, meaning, and enhance one's ability to cope (Hill & Pargament, 2003). Spirituality may yield a sense of Ultimate purpose, providing stability and buffering against stress during times of crisis (Baumeister, 1991; Hill & Pargament, 2003). Spirituality also provides us with a center, binding us to an Ultimate reality (Piedmont, 1999). Spirituality can permeate all aspects of life, facilitating the development of worldviews and offering a greater sense of purpose, meaning, joy, and security in life (Baumeister, 1991; Frey et al., 2005; Hill & Pargament, 2003; Ho & Ho, 2007; Piedmont, 1999; Richards & Bergin, 2005).

In professional practice, if we are to truly know our clients, we must acknowledge their spiritual beliefs and seek to understand the manner in which these beliefs influence their approach to daily life (Ozer & Benet-Martínez, 2002). An assessment of spiritual beliefs can help us to better conceptualize our clients and inform our understanding of their worldviews; it can also highlight if and how spirituality may impact their chief complaint(s) (Richards & Bergin, 2005). Inquiry into clients’ spiritual beliefs can be easily incorporated into the intake process and would simultaneously inform the client that discussion of spiritual issues is welcomed within the therapeutic environment (Johnson & Hayes, 2003; Richards & Bergin, 2005; Stanard et al., 2000). Richards and Bergin (2005) argue for at least some level of spiritual assessment during the course of therapy and research has found that
numerous presenting problems are, at least somewhat, spiritual in nature (Johnson & Hayes, 2003).

Statement of the Problem

Currently, the literature lacks an organizing framework for “understanding the personological significance of spiritual constructs” which “leaves the field in a state of conceptual disarray” (Piedmont, 1999, p. 986). Further, the disparities among definitions of spirituality that exist within the literature obstruct the generalization of existing research and hinder future integration of spirituality into mainstream psychological theories (Piedmont, 2005a).

Scholars consistently differentiate between religion and spirituality yet studies of “spirituality” continue to employ measures written with theistically-biased terminology, a practice which ultimately negates these distinctions and, subsequently, adds to the disarray that already exists within the literature. Indeed, a degree of consensus among scholars is needed in order to summarize existing research and provide a clearer direction for future empirical studies (Zinnbauer et al., 1999). Efforts must also be focused on the transcultural measurement of spirituality in order to expand its applicability, enhance our global understanding of spirituality, and explore the similarities and differences in spiritual constructs that may exist among different cultures (Ho & Ho, 2007).

In order for spirituality to become more relevant to the field of psychology, it must be demonstrated that spiritual variables provide new understanding of psychological functioning that is not already explained by existing psychological
theories (Piedmont, 2001). To achieve this, studies of spirituality should employ
traditional psychological methods and measurements. This would help generate a
body of literature that is easily interpreted within mainstream psychology and
facilitate the inclusion of spirituality into the discussion of human psychological
functioning (Piedmont, 2001).

Existing literature lacks a theoretical backdrop and common language for
describing the relationship between spirituality and psychological functioning
(Piedmont, 1999; Piedmont 2005a; Zinnbauer et al., 1999). Despite the empirical
support for the array of potential psychological benefits of spirituality, the conceptual
differences underlying its definition and measurement have impeded theory
development (Emmons & Paloutzian, 2003; MacDonald & Friedman, 2002;
Piedmont, 2005a).

An overabundance of the spirituality research focuses on a Judeo-Christian
population and very few studies have taken an interest in the spiritual lives of atheists
(Keir & Davenport, 2004). Researchers have noted a paucity of studies which
examine spirituality from a secular perspective, one which is not based solely upon
the views of Western religion (Chiu, Emblen, Van Hofwegen, Sawatzky, & Meryhoff,
2004; Gomez & Fisher, 2003; Ho & Ho, 2007; Keir & Davenport, 2004; MacDonald
& Friedman, 2002; Ng, Yau, Chan, Chan, & Ho, 2005). Scholars have also
highlighted the dearth of research that explores the relationship between a more
humanistic spirituality and a variety of psychological variables (e.g. Chiu et al., 2004;
Ho & Ho, 2007; MacDonald & Friedman, 2002).
Without a working consensus on the definition and measurement of spirituality, additional research in this area may only add to the current disarray in the literature (Emmons & Paloutzian, 2003; Piedmont, 2005a). Assessment of spirituality from a more secular perspective would help to ensure that its universal qualities are also considered (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988; Gomez & Fisher, 2003; Ho & Ho, 2007; MacDonald & Friedman, 2002; Ng et al., 2005). Such studies would likely contribute to a more humanistic understanding of spirituality and its role in psychological functioning. Research of this nature may also lend itself to a more culturally inclusive conceptualization of spirituality (Ho & Ho, 2007; MacDonald & Friedman, 2002; Ng et al., 2005), demonstrate relevance to a wider population, and facilitate greater theoretical understanding of a secular notion of spirituality (Emmons & Paloutzian, 2003; MacDonald & Friedman, 2002; Piedmont, 2005a).

Definitions and Assumptions

Religion can influence the manner in which spirituality is expressed; however, it should not be conceptualized as requisite for the existence of spirituality (Elkins et al., 1988; Fromm, 1950; Maslow, 1964). Any definition of spirituality which is contingent upon religious faith does not assert the construct as conceptually unique from religiosity and, simultaneously, denies atheists and agnostics the capacity for spirituality (Elkins et al., 1988; Ho & Ho, 2007; Keir & Davenport, 2004). Such definitions fail to address the primitive essence of spirituality, which is innate
throughout humanity, and exists beyond the confines of organized religion (Elkins et al., 1988).

The current study assumes that human beings possess an inherent capacity for spirituality regardless of the presence or absence of religious faith. Spirituality is a multidimensional construct and is defined as “a way of being and experiencing that comes about through awareness of a transcendent dimension [of life] and that is characterized by certain identifiable values in regard to self, others, nature, life, and whatever one considers to be the Ultimate” (Elkins et al., 1988, p. 10). The preceding definition was derived from classical psychological and philosophical writings and guided the construction and development of the measure of spirituality that this study will employ (Elkins et al., 1988).
CHAPTER II

REVIEW OF RELATED LITERATURE

The following review of related literature is intended to provide the reader with the background information needed to adequately understand the current state of spirituality within psychological literature. This section will cover some of the relevant issues and difficulties related to defining and measuring spirituality as a psychological construct; it will also discuss some recent research into spiritual variables and their relation to mental health. A brief review of current theories of spiritual development will be presented followed by a detailed discussion of the Five-Factor Model of personality and its utility in studies of spirituality. Finally, research related to the relationship between spirituality and personality will be reported and discussed.

Spirituality

An examination of the literature on spirituality reveals that it has been published throughout scholarly journals that span across numerous scientific disciplines and shares few points of convergence among theses different fields (Berry, 2005; Ellison, 1983; Emmons & Paloutzian, 2003; Frey et al., 2005; MacDonald, 2000). While numerous models and measures of spirituality exist within each of these differing disciplines, the development of a collective body of knowledge has been compromised by a lack of consensus among the fields (MacDonald, 2000; Piedmont,
The disparities among conceptualizations and measurements of spirituality have made it an elusive construct, difficult to research, and have impeded comparisons and generalizations of empirical studies across differing bodies of work (Berry, 2005, Chu et al., 2004, Emmons & Paloutzian, 2003, Ho & Ho, 2007, MacDonald, 2000, MacDonald & Friedman, 2002, Piedmont, 2005a).

One possible way to cultivate a better understanding of spiritual variables would be to examine them in relation to existing, well-defined, psychological constructs. The Five-Factor Model (FFM) of personality has been suggested as a valuable reference point from which spirituality could be explored (McCrae, 1999, Piedmont, 1999). It has yet to be determined whether or not spirituality demonstrates redundancy with, or uniqueness from, personality factors. But, regardless of the findings, including a measure of a well-established framework of personality with studies of spirituality would likely advance dialogue and, perhaps, facilitate the development of a preliminary organizing theory of spirituality (McCrae, 1999, Piedmont, 1999).

Spirituality has been defined in a variety of ways throughout the literature, especially in terms of its distinction from religion (e.g., Elkins et al., 1988, Frey, Daaleman, & Peyton, 2005, MacDonald, 2000, Piedmont, 1999). Consequently, these variations in definitions have guided the development of numerous instruments designed to assess spirituality, each of which does so from a slightly different perspective (Berry, 2005). Despite these operational disparities, researchers have consistently uncovered significant relationships between spiritual variables and a
variety of psychological constructs (e.g. Frey et al., 2005; Gomez & Fisher, 2003; Hackney & Sanders, 2003; Matheis, Tulsky, & Matheis, 2006; McCullough, Emmons, & Tsang, 2002; Steger & Frazier, 2005). A detailed discussion of these findings is presented later in this chapter.

Defining Spirituality

Throughout the literature, scholars have offered a variety of definitions for spirituality and provided differing perspectives on the extent to which the construct is independent from religion and religiosity. A prominent discrepancy among descriptions of spirituality relates to the presence or absence of theistic bias. More specifically, the issue lies with the extent to which varying conceptualizations are dependent upon Judeo-Christian terminology (Berry, 2005; Emmons & Paloutzian, 2003; MacDonald, 2000; MacDonald & Friedman, 2002; Moberg, 2002; Piedmont, 2005a). Such contingencies of spirituality are problematic for two primary reasons: 1) they lack cultural sensitivity and transcultural applicability and 2) they hinder explorations of spirituality from a more organic perspective, one that may be common across humanity-regardless of religious affiliation, or lack thereof.

Spirituality and religiosity must be defined in a conceptually meaningful manner which avoids polarizing the two constructs (Zinnbauer et al., 1999). While they are overlapping constructs, “neither is a necessary or sufficient condition for the other” (Ho & Ho, 2007, p. 65). Spirituality is not necessarily connected to any particular religion (Ho & Ho, 2007); religious belief is not a mandated requisite for spirituality (Elkins et al., 1988). It is possible to be religious but not spiritual, spiritual
but not religious, both spiritual and religious, or neither (Elkins et al., 1988; Richards & Bergin, 2005). Regardless of how it is defined, spirituality represents a significant component of our humanity and of who we are as human beings (Piedmont, 2005a).

Prominent psychologists and social scientists including William James (1902/1961), John Dewey (1934), Alfred Adler (1938/1964), Carl Jung (1938/1966), Gordon Allport (1950), Erich Fromm (1950), Victor Frankl (1959/2006), and Abraham Maslow (1970) have long agreed that the values and principles that comprise spiritual beliefs belong to humanity and are a central component of human functioning. Several theories of individual psychology (e.g. Adler, 1938/1964; Jung, 1938/1966; Maslow, 1970) highlight personal spiritual pursuits as important tasks within psychological development. Spirituality is more organic to human existence than any expression of religiosity (Elkins et al., 1988). Spiritual development is not contingent upon the presence of religious faith; it is an inherent capacity of humankind (Adler, 1938/1964; Dewey, 1934; Frankl, 1959/2006; Fromm, 1950; Maslow, 1970). Although historical, these perspectives highlight what is largely absent in current spirituality literature and they call attention to the need for a humanistic exploration of this organic spirituality (Elkins et al., 1988).

Ho and Ho (2007) argue for a working definition of spirituality which is maximally inclusive and not explicitly dependent upon a theistic worldview. Common to all traditional religions is the recognition of human fallibility and the belief in some higher power or guiding principle (Ho & Ho, 2007). The recognition of the Sacred appears to be the common denominator between religion and spirituality
(Hill & Pargament, 2003). Even among conceptual differences in definitions of spirituality, there exists an underlying theme related to a uniting harmony which permits transcendence of immediate consciousness (Piedmont, 1999).

Spirituality is comprised of orienting values, meaning, and convictions that guide daily life (Ho & Ho, 2007). It provides a center or foundation which can direct the manner in which we live our lives. Spiritual individuals are acutely aware of their own mortality and they seek to create a sense of meaning and purpose in their lives (Piedmont, 2001). The existential quest for meaning, a sense of purpose and direction, and a greater understanding of the self within a larger context are all important components of spirituality (Elkins et al., 1988; Ho & Ho, 2007).

Spirituality is a dynamic and multifaceted phenomenon; as such, it must be defined and measured as a multidimensional variable (Elkins et al., 1988; Ho & Ho, 2007; MacDonald, 2000; Miller & Thoresen, 2003; Moberg, 2002). Multidimensional conceptualizations of spirituality have become increasingly more prevalent within the literature over the last two decades (Berry, 2005; Ho & Ho; 2007; MacDonald & Friedman, 2002; Miller & Thoresen, 2003). Consistent with that trend, multidimensional measures of spirituality have been published with greater frequency in recent years.

Construct Measurement

Originating in the variations among the definitional discrepancies, the instruments designed to measure spirituality vary substantially, as well (Berry, 2005; Moberg, 2002). While many scales share similar names, it cannot be assumed that
they measure the same construct (Piedmont, 2005a). The names of instruments may more accurately reflect the authors’ beliefs rather than the variable(s) that these measures were designed to assess (Berry, 2005; MacDonald, 2000).

Several of the available assessment tools are written with terminology that is unique to a monotheistic interpretation of spirituality (e.g. Ellison, 1983; Kass, Frieman, Leserman, Zuttermeister, & Benson, 1991; MacDonald, 2000; Veach & Chappel, 1992). As a result, these measures are significantly limited in their efficacy to assess spirituality within any group or individual that does not adhere to a more traditional view of God. While there are a handful of instruments that employ neutral language (e.g. Piedmont, 1999; Frey et al., 2005), many are quite short in length with some containing fewer than 20 items. Regardless of item-wording, few of the existing instruments are lengthy or comprehensive enough to adequately capture, or thoroughly examine, the multiple dimensions of spirituality (Berry, 2005; MacDonald, 2000; Moberg, 2002).

While an exhaustive review of measures of spirituality and related spiritual constructs is beyond the scope of the current study, the interested reader is encouraged to review Hill (2005), Hill and Hood (1999), and/or MacDonald, LeClair, Holland, Alter, and Friedman (1995) for a more detailed presentation of available instruments. However, a brief description of some spirituality assessment tools is provided below to offer a glimpse of some of the instruments currently available for use.

The Spiritual Well-Being Scale (SWBS; Ellison, 1983) was one of the first assessments of spirituality to be widely utilized in a variety of research settings.
(Ellison & Smith, 1991). To date, it remains one of the most researched measures of spirituality. The SWBS was developed to assess subjective quality of life, as measured by two subscales: Religious Well-Being and Existential Well-Being (Ellison, 1983). There are 10 items on each subscale, yielding a total of 20 items on the SWBS and each of the items on the Religious Well-Being subscale contains the word “God”. Spiritual Well-Being, as conceptualized by Ellison (1983), results from having attained a solid underlying state of spiritual health and spiritual maturity.

The *Expressions of Spirituality Inventory* (ESI, MacDonald 1997/2000) was initially developed, in part, to help consolidate the numerous different measurements and definitions of spirituality. In a two-stage study which included a combined sample of over 1,400 undergraduate students, the author gathered data from participants on 18 spirituality assessment instruments. The first phase of the study employed factor analysis to explore the underlying factor structure represented throughout these various spirituality inventories; five factors emerged. The second part of the study attempted to replicate the factor findings from the first study and to explore the initial utility of the newly developed ESI. MacDonald (2000) found the five factors to be upheld in the second study. Emerging from this research was the 98-item ESI which assesses spirituality across five dimensions: Cognitive Orientation towards Spirituality (COS), Experiential/Phenomenological Dimension of Spirituality (EPD), Existential Well-Being (EWB), Paranormal Beliefs (PAR), and Religiousness (REL) (MacDonald, 2000).
The *Spiritual Transcendence Scale* (STS; Piedmont, 1999) was developed to assess for and examine individual differences that are not captured or described within the Five-Factor Model of personality. The author hypothesized that spiritual transcendence may represent a sixth dimension of normal personality (Piedmont, 1999). To develop the STS, Piedmont (1999) employed a development sample of 379 male and female undergraduate students ranging in age from 17- to 40-years-old (M=18.5) and a validation sample of 356 undergraduate students ranging in age from 17- to 52-years-old (M=19.7). Items for the STS were derived from a review of religious texts from a range of Eastern and Western religious traditions as well as discussions with elders from these differing faiths; the initial STS item pool contained 65 items (Piedmont, 1999).

In the development phase of the study, responses to these items were correlated with a measure of the FFM and a measure of faith maturity; any items that demonstrated significant correlations solely with markers of the FFM were deleted. After principle components analysis, varimax rotation, and factor analysis, the resulting STS contained 24 items and a three-factor structure (Piedmont, 1999). The validation phase of the study replicated the three-factor structure of the STS which demonstrated minimal overlap with personality as represented within the FFM. Piedmont (1999) named the three subscales of the STS *Universality, Prayer Fulfillment,* and *Connectedness.*

The STS is unique in that items are worded in a blatantly neutral manner. It also demonstrates excellent face validity for a measure of spirituality, as defined
without reference to any particular religious tradition(s). In addition to its brevity, a primary weakness of the STS is that it was intentionally designed to minimize overlap with the FFM; this precludes its use as a tool to explore any potentially meaningful relationships that might exist between spirituality and personality.

The manner in which spirituality is operationalized inherently influences the interpretation of research results; the theoretical implications and perceived relevance of results are impacted by this, as well (Chiu et al., 2004; Emmons & Paloutzian, 2003; MacDonald & Friedman, 2002; Peidmont, 2005a). Among the differences in conceptualizations exists substantial variety in the tools designed to assess spirituality. Consequently, it is not surprising that attempts to consolidate research on spirituality and spiritual variables have also been impeded. With the amount of variation in definitions and measurements employed throughout the research of spirituality and related variables, meaningful comparison of studies becomes complicated and generalizations of scholarly findings are ambiguous (Chiu et al., 2004; Ho & Ho, 2007; MacDonald, 2000; Moberg, 2002; Piedmont, 2005a).

**Spirituality and Psychology**

Religious and spiritual variables have become increasingly common in psychological research studies over the past few decades (Emmons & Paloutzian, 2003; Miller & Thoresen, 2003; Powers, 2005; Richards & Bergin, 2005). While spiritual or religious constructs are often included as add-in variables and not the primary area of researcher interest (Hill & Pargament, 2003), studies have, nonetheless, uncovered a variety of relationships which appear to exist between
spiritual concepts and several psychological phenomena. Overall, research reveals that spirituality appears to have a positive impact on a number of aspects of psychological functioning (e.g. Frey et al., 2005; Ng et al., 2005; Steger & Frazier, 2005).

The beneficial effects of religion and spirituality on behavioral health are well documented (Emmons & Paloutzian, 2003). There is evidence that religious and spiritual beliefs help facilitate the development of a sense of meaning in life and contribute to an overall increase in life satisfaction (Emmons, Cheung, & Tehrani, 1998; Ng et al., 2005; Steger & Frazier, 2005). Spirituality appears to foster a greater understanding of purpose in life (Emmons et al., 1998; Piedmont, 2001) and seems to have a positive impact on sense of well-being (Emmons et al., 1998; Ng et al., 2005; Steger & Frazier, 2005). Studies have also revealed that spirituality shares a positive relationship with self-esteem (Maton, 1989; Steger & Frazier, 2005), facilitates psychological growth, and contributes to higher levels of psychological health (Maton, 1989; Ng et al., 2005; Piedmont, 2001).

In a sample of individuals experiencing high levels of stress, Maton (1989) found that greater levels of perceived spiritual support were significantly related to lower prevalence of depressive symptoms, higher self-esteem, and greater levels of emotional adjustment. In his study, Maton (1989) investigated the stress-buffering effects of spirituality in two different samples; the first sample was comprised of 81 adults, 62 females and 19 males, with an average age of 46-years-old. These participants were recruited from a mutual help group for bereaved parents. The first
sample was split into a high stress group \( n = 33 \) and a low stress group \( n = 48 \),
with the high stress group being comprised of parents whose child passed away within
the past two years. Within the high stress sub-sample, spiritual support demonstrated
a significant negative relationship with symptoms of depression. Spiritual support was
significantly related to greater self-esteem within the high-stress group, as well
(Maton, 1989).

The second sample in Maton’s (1989) study was comprised of 68 recent high
school graduates currently in their first-year of studies at an East-Coast University;
additional demographic for the sample was not provided. Again, the sample was
divided into high \( n = 33 \) and low stress \( n = 35 \) sub-groups. The high stress group
contained participants who reported experiencing three or more negative life events,
such as death of, or serious illness/injury in, a close friend or relative within the past
six months (Maton, 1989). Within the high stress group, spiritual support was
associated with greater levels of personal emotional adjustment \( p < .01 \). Overall,
Maton (1989) concludes that spiritual support appears to be especially beneficial to
individuals enduring highly stressful situations. Further, he hypothesizes that
spirituality helps foster positive appraisals of, and provides emotional support during,
difficult life events (Maton, 1989).

Spirituality can serve as a valuable resource to individuals during times of
stress, providing a buffer and facilitating greater psychological adjustment
(Baumeister, 1991; Hill & Pargament, 2003). It can foster a sense of selflessness
which may decrease egocentrism and fixation in the mind, leading to reductions in
rumination and diminished experiences of distress (Ho & Ho, 2007). Ho and Ho (2007) hypothesize that feelings of alienation and distress may actually result from failures in the existential quest for meaning and purpose in life. In a similar vein, Emmons, Cheunch, and Tehrani (1998) argue that spirituality has positive implications for psychology and contend that it adds a greater sense of meaning and purpose in life, increases life satisfaction, promotes higher levels of well-being and self-esteem, and leads to overall better mental health.

In a study conducted by Steger and Frazier (2005), the authors examined possible mediators of the relationship between religion and psychological health. They were primarily interested in a construct they identified as “meaning in life”. The results were based on a sample of 512 undergraduate males and females with an average age of 20-years-old (Steger & Frazier, 2005). Meaning in life was found to mediate the relationship between religiousness and well-being; in this study, “well-being” was defined as a composite of life-satisfaction and self-esteem. Additionally, religiousness, as measured by four questions pertaining to the frequency of religious activity and self-rating of subjective level of spirituality and religiosity, was found to be significantly correlated with meaning in life, life-satisfaction, optimism, and self-esteem (Steger & Frazier, 2005). Overall, the authors concluded that religion seems to provide a greater understanding of meaning in life and found that religiousness is associated with higher levels of self-regard, increased perceived value of life, and enhanced sense of well-being (Steger & Frazier, 2005).
In a study designed to further assess the adequacy and predictive ability of the recently developed STS, Piedmont (2001) assessed 322 male \((n = 95)\) and female \((n = 227)\) undergraduate students across a number of different psychologically salient variables. The participants were all enrolled in an introductory psychology course at a Midwestern University and ranged in age from 17- to 37-years-old (Piedmont, 2001). Additional support for the psychometric adequacy of the STS was found and the study also revealed statistically significant correlations \((p < .001)\) between Spiritual Transcendence and important components of psychological functioning. More specifically, the aspects of spirituality measured by the STS were found to demonstrate a positive relationship with self-actualization, purpose in life, and prosocial behavior (Piedmont, 2001).

In a four-part study by McCullough, Emmons, and Tsang (2002), spiritually minded individuals were found to possess greater amounts of dispositional gratitude. The study employed a newly developed measure of dispositional gratitude to examine the construct’s uniqueness from other life-enhancing variables, explore possible correlates, and investigate the manner in which dispositional gratitude may relate to the Big Five personality traits (McCullough et al., 2002). Altogether, the results are based upon a total sample size of 1,622 participants, ranging in age from 18- to 75-years old.

Measures of gratitude were positively correlated with almost all measures of spirituality and religiousness. Furthermore, participants who reported greater spiritual or religious dispositions had a tendency to experience more gratitude in their daily
lives than those less spiritually oriented. This provides one explanation for why those who scored higher on measures of spirituality tended to report fewer depressive symptoms and experience less psychological distress (McCullough et al., 2002). Those scoring higher on the measure of gratitude were also found to experience more positive affective states, greater life-satisfaction, and exhibit more pro-social behaviors (McCullough et al., 2002).

In an effort to develop and validate a multidimensional, transculturally applicable measure of holistic health, Ng et al. (2005) employed a sample of 674 Chinese males (n = 188) and females (n = 483) with a median age between 21- and 30-years old. In the validation process, the authors utilized a number of measures to assess the concurrent validity of their newly developed instrument, The Body-Mind-Spirit Well-Being Inventory (BMSWBI). It is notable that the spirituality subscale of the BMSWBI demonstrated statistically significant correlations with each of the validation instruments (Ng et al., 2005). More specifically, spirituality was associated with greater physical and mental health, positive affect, post-traumatic growth, life satisfaction, and hope. Spirituality shared a negative relationship with negative affect and perceived stress (Ng et al., 2005).

In their meta-analysis of 35 studies which examined the relationship between religiosity and mental health, Hackney and Sanders (2003) found that, overall and regardless of how either construct was defined, religion has a positive impact on psychological health. Similarly, Day (2010) notes that “overwhelming evidence”
indicates that religiosity and spirituality have an affirmative impact on psychological well-being in adulthood (p. 216).

Research consistently demonstrates that spirituality has a positive influence on mental health; however, it remains unclear exactly how spirituality exerts its apparent influence on psychological processes. The variation in definitions and measurements of spirituality cloud the interpretation and generalization of findings from studies of these constructs and other closely related variables. Further, spirituality is increasingly conceptualized in the literature as a multidimensional construct and the manner in which its various dimensions may differentially impact mental health has yet to be adequately explored. In this way, it appears that spirituality is related to and influences psychological functioning in a complex, multidirectional manner (MacDonald & Friedman, 2002).

Ho & Ho (2007) suggest that spiritual variables and phenomena are, inherently, psychological phenomena. Many of the modern concepts that permeate current theories of personality reflect secularized aspects of spirituality (Emmons, 1999; Ho & Ho, 2007). For instance, characteristics including humility, altruism, compassion, and honesty are all traits that can be found within both mainstream personality theory and multidimensional conceptualizations of spirituality. Consequently, integration of spirituality into mainstream psychology may not be as daunting of a task as previously believed and efforts to further this process must diligently be continued (Ho & Ho, 2007; Stanard et al., 2000; Sue et al., 1999).
In recent years, increasing attention has been devoted to holistic health, from both a professional and consumer-related standpoint. Holistic healthcare, as a multidisciplinary approach to wellness, provides one avenue through which spirituality and psychology may reunite with greater purpose. As a mission, “holism attempts to bridge the divide between mind and matter, individual and group, and artificial and natural, which have contributed to the psychic and spiritual fragmentation of meaning and purpose in postmodern society” (Hayes, 2009, p. 55).

Holistic thought is humanistic; it is focused on healthy development and it is spiritually attuned (Hayes, 2009). In practice, holistic medicine attends to the mental, emotional, spiritual, and biological needs of those it serves (Hayes, 2009). The holistic model offers one example from which conventional psychotherapy could learn to more readily incorporate spirituality into its mainstream practice.

Spiritual Development

A spiritual person is aware of their existence and is aware of this awareness; they are able to understand their limitations as well as the consequences of losing sense of oneself within the world (Ho & Ho, 2007). A spiritual person is cognizant of, and responsive to, their bidirectional interactions with the world around them. The capacity for introspection and metacognition is essential to the development of spirituality (Ho & Ho, 2007). Self-transcendence, the authentic ability to go beyond the self and establish a genuine sense of community with humanity, and a deep understanding of relationship to a higher power also appear to be vital components of spiritual development (Cartwright, 2001).
In recent years, the concept of postformal thought (Sinnott, 1998), an expansion of Piaget’s stage-model of cognitive development into adulthood, has been integrated into theories of spiritual development (Cartwright, 2001; Griffin et al., 2009). Postformal thought, which is characterized by the ability to bridge multiple realities of self and other to create an “enhanced understating of circumstance”, requires the capability for abstract thought and the recognition that multiple truths exist (Griffin et al., 2009, p. 173).

When applied to spiritual development, the theory of postformal thought suggests that one’s current understanding of an external power is contingent upon one’s current level of cognitive development. That is, as individuals advance through the stages of cognitive development, their understanding of a higher power is able to transcend their previous level of understanding as additional cognitive skills are acquired (Cartwright, 2001; Sinnott, 1998). Consistent with Piaget’s notion that conflict can facilitate change in cognitive structures, personal experiences of adversity may similarly advance the process of spiritual development. Spiritual growth may actually be fostered more by personal or social challenges rather than by the inevitable progression of chronological age (Wink & Dillon, 2002). However, it seems that transcending former stages of cognitive development is necessary to further spiritual development, as well (Cartwright, 2001).

The theory of postformal thought offers an explanation for, among other things, the manner in which adaptive style and search for meaning in life change in accordance with the development of a more complex understanding of “meaning” and
“truth” (Cartwright, 2001; Griffin et al., 2009). The quest for meaning and truth, as previously mentioned, are widely accepted as dimensions of spirituality. A postformal level of thought is believed to be necessary in order for an individual to internalize a complex understanding of God or higher power (Sinnott, 1994).

At earlier stages of cognition, the concept of God seems to be largely dependent upon cultural representations and may be perceived as something others “believe in” to fulfill their needs or find understanding (Cartwright, 2001). However, greater levels of postformal thought allow individuals to develop a more personal understanding of a higher power that is not rigidly based in a particular religious or cultural tradition (Cartwright, 2001). In fact, Hayes (2009) hypothesizes that, in certain circumstances, religion may serve as an “impediment to spiritual growth” (p. 59). However, the development of postformal thought can facilitate a reconciliation of personal realities and lead to a more open-minded understanding of ultimate circumstance (Griffin et al., 2009).

Few scholars have empirically explored the relationship between postformal thought and non-cognitive factors such as personality and spiritual constructs (Griffin, et al., 2009). It is hypothesized that individuals with a disposition toward postformal thought would likely hold more complex views of God, be more tolerant of differing viewpoints, be less rigid in their expressions of religion, and perceive God as more loving and stable (Griffin et al., 2009).

To explore their hypothesis that the development of postformal thought may be correlated with certain factors of personality, Griffin et al. (2009) assessed a
sample of 82 male and female undergraduate students using the NEO Five-Factor Inventory (NEO-FFI, Costa & McCrae, 1992) and a scale designed to measure postformal thought. They found significant positive correlations between postformal thought and both the Openness to Experience and Conscientiousness factors of the NEO-FFI. Causality could not be determined but the authors suspect that postformal thought, for those high in the Openness factor, might help facilitate the integration of new information and alternative understandings to create a more expansive worldview (Griffin et al., 2009).

The Five-Factor Model of Personality

Over the past 30 years, the Five-Factor Model of personality (FFM) has emerged as one of the most comprehensive theories of normal personality (Costa & McCrae, 1992; Digman, 1990; McCrae & Costa, 1987; McCrae & John, 1992; Piedmont, 2004; Piedmont, 2005a; Piedmont, 2005b). The FFM resulted from years of research efforts to identify an overarching framework of the structure of non-pathological personality (McCrae & Costa, 1987; Piedmont, 2004; Piedmont, 2005b). The development of the FFM has historical roots in two paths of research: the lexical approach (Norman, 1963) and through the analysis of personality questionnaires (Costa & McCrae, 1992; McCrae & Costa, 1987; McCrae & John, 1992).

The FFM holds personality to be comprised of five primary factors, or domains, under which the variety of individual characteristics that comprise the unique substance of personality can be located (Costa & McCrae, 1992; McCrae & Costa, 1987; McCrae & John, 1992). These five factors are labeled: Neuroticism (N),
Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C) (Costa & McCrae, 1992; McCrae & Costa, 1987). The assortment of ways in which individuals can vary in areas including attitudes, experiences, motivations, emotions, and interpersonal styles are all thought to be adequately represented within the five factors of the FFM (Costa & McCrae, 1992; McCrae & Costa, 1987; McCrae & John, 1992).

The FFM is an empirically validated and comprehensive taxonomy of individual personality traits (Digman, 1990; McCrae & Costa, 1987; McCrae & John, 1992). Scholars have advocated for use of the FFM as a basis for exploring the relationship between spiritual variables and personality (Emmons & Paloutzian, 2003; McCrae, 1999; Piedmont, 1999; Piedmont 2001; Piedmont, 2005a). It provides a robust framework of personality and has been proposed as a valuable reference point from which spiritual constructs can be studied (McCrae, 1999; Piedmont, 1999).

The FFM can provide a meaningful base for exploring how tendencies toward personality traits “are channeled into characteristic adaptations that include culturally conditioned religious and spiritual goals and attitudes” (Emmons & Paloutzian, 2003, p. 391). Furthermore, research into the manner in which spiritual variables relate to the FFM could facilitate a cohesive discussion of spirituality within personality psychology and may help guide the development of an organizing theory of spirituality within mainstream psychology (McCrae, 1999; Piedmont, 1999; Piedmont, 2005a).
The patterns of relationships demonstrated between dimensions of spirituality and factors of the FFM can provide insight into the personality characteristics represented within different measures of spirituality and the types of outcomes these measures might help predict (Piedmont, 2005a). Likewise, the study of spirituality within the framework of personality can lead to an understanding of the psychosocial outcomes that are uniquely predicted by spirituality (Piedmont, 2001).

Piedmont (2001) contends that spirituality must be studied in conjunction with assessments of personality in order to achieve a comprehensive understanding of individuals and a clearer picture of their unique differences. The FFM provides a reference point for organizing and evaluating individual differences in spirituality (Piedmont, 2001). Piedmont (1999) also maintains that the FFM can facilitate our understanding of the motivations that lead individuals to pursue their own unique spiritual goals. Much can be learned by examining the manner in which spiritual constructs may add incremental predictive ability beyond the existing factors of personality and, thus, should be studied within a well-established framework of personality (i.e: the FFM; Piedmont, 1999).

**Spirituality and Personality**

“Personality psychology has had a longstanding relationship with the psychology of religion” (Emmons & Paloutzian, 2003, p. 390). In essence, both spirituality and personality lie at the core of human existence (Emmons, 1999). Spirituality may be a characteristic adaptation, much like personality, which impacts the manner in which we experience and react to our world and the people in it.
(Donofrio, 2004); it appears to foster a stronger adherence to personality, especially during difficult times which might otherwise provoke a fragmentation of the self (Hill & Pargament, 2003). McLafferty and Kirylo (2001) describe “two simultaneous processes of wellness in the human being: the unfolding of personality and the alignment of that personality with a point of transcendence” (p. 85). In studying spirituality and religious variables, Emmons and Paloutzian (2003) contend that we should seek a psychological understanding of spiritual processes and apply this new knowledge for “human good” (p. 378).

While there are a paucity of studies that directly examine the relationship between spiritual variables and personality (Ozer & Benet-Martínez, 2006), the modest amount of research that does exist reveals consistent correlational trends between spiritual constructs and dimensions of personality (e.g. MacDonald, 2000; Maltby & Day, 2001; Piedmont, 1999; Saroglou, 2002; Saucier & Skrzypinska, 2006). However, these relationships appear to vary, somewhat substantially, dependent upon which dimension of spirituality is being assessed and how it is operationalized (e.g. MacDonald, 2000; Maltby & Day, 2001; Piedmont, 1999). Nonetheless, researchers have found significant correlations between spiritual variables and personality dimensions, as described by the FFM.

In a study of personality and spirituality in 181, middle-age males, ranging in age from 35- to 55-years old ($M = 45$-years-old), Lindquist (1995) found numerous significant relationships between each of the nine subscales of the Spiritual Orientation Inventory (SOI; Elkins, 1986) and the five factors of the FFM, as
measured by the NEO-FFI. Significant correlations with the E, O, A, and C factors were all in the positive direction. However, significant correlations with N were in the negative direction. More specifically, N was significantly and negatively correlated with the following subscales of the SOI: *Altruism, Idealism, Material Values, Meaning and Purpose,* and *Mission in Life* (Lindquist, 1995).

Piedmont (1999) utilized a sample of 356 undergraduate students for the initial development and validation of the STS. During the validation phase, Piedmont (1999) found that each of the three STS subscales demonstrated at least one statistically significant positive correlation with either the E, O, A, and/or C personality factors, as measured by the Revised NEO Personality Inventory (NEO-PI-R, Costa & McCrae, 1992). More specifically, *Universality* shared a relationship with E, O, and A; *Prayer Fulfillment* was correlated with E and C; and *Connectedness* demonstrated a significant correlation with E, O, and A (Piedmont, 1999).

In a similar study, based on a sample of 322 male and female undergraduate students enrolled in a psychology course, Piedmont (2001) further evaluated the utility of the STS. This study revealed that, again, each of the three subscales of the STS demonstrated a statistically significant, positive relationship with at least one of the factors in the FFM. *Universality* was associated with higher O and A; *Prayer Fulfillment* was correlated with A, and *Connectedness* demonstrated a significant relationship with E, O, and A (Piedmont, 2001).

MacDonald (2000) employed a sample of 938 undergraduate students in his initial research on the development and validation of the ESI. During the validation
process, MacDonald (2000) found that a significant correlation existed between each of his five ESI subscales and at least one of the NEO-PI-R domain scales. The Cognitive Orientation towards Spirituality subscale of the ESI demonstrated significant positive correlations with the E, O, A, and C domains of the FFM (MacDonald, 2000).

The Experiential/Phenomenological dimension of the ESI demonstrated significant and positive correlations with factors E and O. The Existential Well-Being scale of the ESI was significantly negatively correlated with N and shared significant and positive relationships with factors E, A, and C of the FFM (MacDonald, 2000). The Religiousness subscale of the ESI demonstrated a positive and significant relationship with E, A, and C as measured by the NEO-PI-R. A final ESI dimension labeled Paranormal Beliefs shared a significantly positive relationship with the O factor of the FFM (MacDonald, 2000).

Saroglou (2002) completed a meta-analysis of studies published between 1986 and May 2000 which explored the association between religiosity and personality, as defined by the FFM. The final sample contained 13 studies which were broken down into four different groups, based upon the aspect of religion that the studies had assessed; to avoid using data from the same samples, a separate meta-analysis was conducted on each of the four groups (Saroglou, 2002). The first group was composed of eight independent samples (N = 3031) from studies that explored intrinsic aspects of religion such as prayer, religious affiliation, orthodoxy, and general religiosity. Intrinsic religion was found to demonstrate a statistically significant, positive
relationship with E, O, A, and C factors of the FFM (Saroglou, 2002). The second group of studies contained 10 independent samples (N = 2891) that had assessed an open and mature aspect of religion and spirituality. The meta-analysis of these studies uncovered significant positive correlations between this type of open spirituality with E, O, A, and C and a statistically significant negative relationship with N (Saroglou, 2002).

The third group contained three studies (N = 443) which explored the relationship between religious fundamentalism and the FFM (Saroglou, 2002). The meta-analysis of these studies revealed a statistically significant inverse relationship between religious fundamentalism and the N and O factors of personality; there was a positive association between fundamentalism and Agreeableness. Finally, the fourth group was comprised of three studies (N = 955) that examined extrinsic religion. Extrinsic religiosity was positively correlated with the N factor of the FFM at $p < .01$. Further, this strength and direction of this association remained stable across the three studies contained in this final group (Saroglou, 2002).

In a study designed, in part, to explore whether or not differences exist between the personality correlates of subjective spirituality and those of tradition-oriented religion, Saucier and Skrzypinska (2006) surveyed a sample of 375 male ($n = 160$) and female ($n = 215$) community members with an average age of 51-years-old ($SD = 12.4$ years). In addition to subjective spirituality, traditional religion, and personality factors of the FFM, the authors assessed participants across a number of additional variables which included conformity, self-consciousness, authoritarianism,
social dominance, collectivism/individualism, and irrational beliefs (Saucier & Skrzypinska, 2006). The authors found strong evidence that traditional religion and subjective spirituality are independent constructs with different psychological correlates. Subjective spirituality demonstrated a statistically significant positive relationship with both the E and O factors of the FFM while traditional religion was correlated with higher A and lower O (Saucier & Skrzypinska, 2006). In summarizing their findings, the authors caution that religion and spirituality should not be treated or assessed as a single construct; they warn that meaningful differences may go unnoticed if these two related, yet conceptually unique, constructs are not examined from appropriately distinct perspectives (Saucier & Skrzypinska, 2006).

While research provides evidence of a relationship between spirituality and personality, a lack of clarity remains regarding the manner in which these constructs are related. Each of the aforementioned studies explored this relationship using a different measure of spirituality and, subsequently, assessed a slightly different component of the construct. Additionally, researchers have increasingly recognized the conceptual differences between spirituality and religious beliefs and have noted the difficulties involved in synthesizing the findings between these differing domains (Piedmont, 1999; Piedmont, 2005a; Zinnbauer et al., 1999). Nonetheless, there appears to be a somewhat stable relationship between spiritual variables and the E, O, A, and C factors of the FFM.
Summary

Research findings in the psychological study of spiritual variables suggest that spirituality enhances psychological functioning in a number of meaningful ways. Despite disparities in how the construct is defined and measured across studies, spirituality has, nonetheless, demonstrated a positive impact on psychological health. It has been associated with increased life-satisfaction (Ng et al., 2005; Steger & Frazier, 2005), greater sense of meaning- and purpose-in-life (Ng et al., 2005; Steger & Frazier, 2005; Piedmont, 2001), higher levels of self-esteem (Maton, 1989; Steger & Frazier, 2005), increased sense of well-being (Ng et al., 2005; Steger & Frazier, 2005), and higher resiliency during times of stress (Maton, 1989).

Discrepancies in the conceptualization and operationalization of spirituality throughout the literature have impeded theory development and delayed consolidation of the growing amount of research related to spiritual constructs (MacDonald, 2000; Moberg, 2002; Piedmont, 2005a). One promising resolution to these conceptual dilemmas involves a humanistic examination of spirituality as a multidimensional variable which would also provide a more inclusive, secular understanding of the construct (Elkins et al., 1988; Ho & Ho, 2007). The Five-Factor Model of Personality has been proposed as valuable taxonomy within which spiritual variables can be more meaningfully explored (McCrae & Costa, 1999; Piedmont, 1999). Studies of spirituality within this well-established framework would provide a reference point for theory development; research of this nature would also foster a personological understanding of spiritual tendencies and support the organization and evaluation of
individual differences with regard to spirituality (Emmons & Paloutzian, 2003; McCrae & Costa, 1999; Piedmont, 1999; Piedmont, 2005a).
CHAPTER III

METHOD

This study was designed to further the understanding of the relationship between spirituality and personality. A sample of undergraduate and graduate students was surveyed across nine dimensions of spiritual orientation and five factors of personality.

Purpose of the Study

The current study seeks to provide insight into the relationship between personality and spirituality. It aims to further the understanding of spirituality, as a secular concept, and the manner in which it relates to personality. It is also hoped that this research might, in some way, contribute to an organizing theory of spirituality within psychology.

Ozer and Benet-Martinez (2006) have noted that there is shortage of studies which address the relationship between spiritual constructs and dimensions of normal personality. Others have acknowledged the paucity of research devoted to an understanding of spirituality from a perspective other than that of Western religion (Chiu et al., 2004; Ho & Ho, 2007; Keir & Davenport, 2004). As noted earlier, scholars contend that spirituality must be defined, measured, and studied as a multidimensional construct (Ho & Ho, 2007; MacDonald, 2000). In summarizing these positions, a need for additional research in this area has emerged.
This study aims to address this need in several ways. First, the instrument selected to assess spirituality employs neutral terminology and makes no explicit references to any specific religion. Second, this instrument examines nine different dimensions of spirituality which provide an expanded assessment of the construct. Third, these multiple dimensions of spirituality are compared to the five factors of personality, as assessed by a measure of normal personality. Finally, through use of a self-report questionnaire, the study explores the manner in which spirituality and personality vary and differ with regard to age, gender, and religious activity—or lack thereof. The primary research question of this study is: “How do the five factors of personality, as measured by the NEO Five-Factor Inventory, relate to spiritual orientation?”

Research Hypotheses

The following hypotheses are based upon research support and were selected to help answer the aforementioned research question:

1) The five factors of personality, in combination, will account for a significant amount of variation in spiritual orientation.

   A) Extroversion will demonstrate a significant positive relationship to spirituality (Maltby & Day, 2001; Piedmont, 1999, 2000).

   B) Agreeableness will demonstrate a significant positive relationship to spirituality (Lindquist, 1995; Piedmont, 1999, 2000, 2005a; Saroglou, 2002).

   C) Openness to Experience will demonstrate a significant positive relationship to spirituality (Lindquist, 1995; Piedmont, 1999, 2000, 2005a).
D) *Conscientiousness* will demonstrate a significant positive relationship to spirituality (Piedmont, 1999, 2000; Saroglou, 2002).

E) *Neuroticism* will demonstrate a negative relationship to spirituality (Lindquist, 1995; MacDonald, 2000).

2) A significant difference within personality domains will exist between persons with high spiritual orientations and persons with low spiritual orientations.

3) There will be a significant relationship between personality factors and self-reported levels of religious activity.

4) There will be a significant relationship between spiritual orientation and self-reported levels of religious activity.

5) Males and females will differ significantly in spiritual orientation.

6) Age will demonstrate a significant correlation with spiritual orientation (Piedmont, 1999).

**Design**

This study employs a passive/observational research design. It examines both within-subject and between-subject variations of the relationship between personality domains and spiritual orientation through the use of quantitative methods.

**Participants**

A total of 254 students from a large Midwestern university participated in this study. Of these students, 94 were male (37%) and 159 were female (63%). The participants ranged in age from 18- to 59 -years-old with an average age of 25-years-
old \( (SD = 6.97) \). Approximately 77% of the sample was comprised of undergraduate students; 22% of the sample was graduate students. Regarding ethnicity, 80% of the participants were White, 7% were Black/African American, 3% were Asian, 2.4% identified themselves as Biracial, and 1.6% were Middle Eastern/Other Arabic Descent. Participants were recruited from a broad range of undergraduate and graduate courses and represented numerous different undergraduate majors and fields of graduate study. Demographic information for the sample is highlighted in Table 1. A more detailed description of the demographic composition of the sample is presented in Tables 2 and 3.

Measures

Spiritual Orientation Inventory

The Spiritual Orientation Inventory (SOI; Elkins, 1986; Appendix C) is an 85-item paper-and-pencil test which assesses spirituality from a humanistic perspective, across nine dimensions (Elkins et al., 1988). Participants read each statement and rate how much they agree with each item. The items are scored on a seven-point likert scale ranging from 1 (intensely disagree) to 7 (intensely agree) (Elkins, 1986). The instrument includes 65 items scored in the positive direction and 20 items which require reverse scoring as they are worded in the negative direction (Elkins, 1986). The SOI yields raw scores which range from 85 to 595, for total SOI score. Examples of items appearing on the SOI are “There is a transcendent, spiritual dimension to life” and “I feel a deep love for all humanity” (Elkins, 1986).
Table 1

**Demographic Background of Participants**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percent</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
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<tr>
<td>18-20</td>
<td>41</td>
<td>16.1%</td>
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<tr>
<td>21-23</td>
<td>124</td>
<td>48.8%</td>
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<tr>
<td>24-26</td>
<td>38</td>
<td>15.0%</td>
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<tr>
<td>27-29</td>
<td>15</td>
<td>5.9%</td>
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<tr>
<td>30-32</td>
<td>8</td>
<td>3.1%</td>
</tr>
<tr>
<td>33 and older</td>
<td>25</td>
<td>9.8%</td>
</tr>
<tr>
<td>Not Reported</td>
<td>3</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>94</td>
<td>37.0%</td>
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<tr>
<td>Female</td>
<td>159</td>
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Table 1 - Continued

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<tr>
<td>Asian</td>
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</tr>
<tr>
<td>Native American/Alaskan Native</td>
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<td>0.8%</td>
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<tr>
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<td>9</td>
<td>3.5%</td>
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Table 2

Demographic Background of Participants by Academic Class Level

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<th>Graduate $(n = 57)$</th>
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<td>14</td>
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<tr>
<td>Female</td>
<td>116</td>
<td>43</td>
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<td></td>
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<td>5</td>
</tr>
<tr>
<td>Hispanic/Latin American</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Asian</td>
<td>5</td>
<td>2</td>
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<tr>
<td>Native Hawaiian/Other Pacific Islander</td>
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<td>0</td>
</tr>
<tr>
<td>Native American/Alaskan Native</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Middle Eastern/Other Arabic Descent</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Biracial</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
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</table>
Table 3

*Religious Preferences Reported by Participants*

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<td>65</td>
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<tr>
<td>“N/A” or “None”</td>
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</tr>
<tr>
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<td>Lutheran</td>
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<td>Non-Denominational Christian</td>
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<tr>
<td>Methodist</td>
<td>11</td>
</tr>
<tr>
<td>Christian Reformed</td>
<td>9</td>
</tr>
<tr>
<td>Agnostic</td>
<td>7</td>
</tr>
<tr>
<td>Baptist</td>
<td>6</td>
</tr>
<tr>
<td>Islam</td>
<td>6</td>
</tr>
<tr>
<td>Presbyterian</td>
<td>6</td>
</tr>
<tr>
<td>Judaism</td>
<td>4</td>
</tr>
<tr>
<td>Episcopalian</td>
<td>3</td>
</tr>
<tr>
<td>Protestant</td>
<td>3</td>
</tr>
<tr>
<td>Atheist</td>
<td>2</td>
</tr>
<tr>
<td>Pentecostal</td>
<td>2</td>
</tr>
<tr>
<td>Seventh Day Adventists</td>
<td>2</td>
</tr>
<tr>
<td>Buddhist</td>
<td>1</td>
</tr>
<tr>
<td>Wiccan</td>
<td>1</td>
</tr>
<tr>
<td>Not Reported</td>
<td>7</td>
</tr>
</tbody>
</table>
The underlying definition of spirituality assumed in the construction of the SOI was derived from the core elements of the construct which the authors derived from a thorough review of spirituality literature published by humanistic psychologists and philosophers (Elkins et al., 1988). Their review yielded nine dimensions of which spirituality is comprised. These dimensions were labeled Transcendent, Meaning and Purpose in Life, Mission in Life, Sacredness of Life, Material Values, Altruism, Idealism, Awareness of the Tragic, and Fruits of Spirituality (Elkins et al., 1988). These nine subscales can be briefly described as follows:

**Transcendent Dimension:** “The spiritual person has an experientially based belief that there is a transcendent dimension to life” (Elkins et al., 1988, p. 10). The belief may range from a traditional view of God to a psychological understanding of a greater collective unconscious. The defining feature of this dimension is the belief “in an ‘unseen world’ and that harmonious contact” with this dimensions is valuable (Elkins et al., 1988, p.10).

**Meaning and Purpose in Life:** This dimension assesses the extent to which an individual has derived an authentic belief that life is deeply meaningful and a genuine understanding that there own existence has a purpose (Elkins et al., 1988).
Mission in Life: The spiritual person experiences a sense of responsibility to humanity and is “metamotivated” to accomplish some type of calling or mission in life (Elkins et al., 1988, p. 11).

Sacredness of Life: This dimension refers to the extent to which an individual recognizes and appreciates a sense of sacredness and awe throughout their daily experiences. The spiritual person acknowledges that “the sacred is in the ordinary” (Elkins et al., 1988, p. 11).

Material Values: The spiritual person acknowledges that “ultimate satisfaction is not found in material, but spiritual things” (Elkins et al., 1988, p. 11).

Altruism: The spiritual person recognizes that we are all part of a common humanity; they have a “strong sense of social justice” and are “committed to altruistic love and action” (Elkins et al., 1988, p.11).

Idealism: “The spiritual person is committed to high ideals and to the actualization of positive potentials in all aspects of life.” They “love things for what they are yet also for what they can become” (Elkins et al., 1988, p.11)

Awareness of the Tragic: The spiritual person is acutely aware of the pain and suffering inherent to human existence which provides them with both a sense
of “existential seriousness towards life” and a heightened spiritual 
appreciation for the value and joy in life (Elkins et al., 1998, pp. 11-12).

**Fruits of Spirituality:** The spiritual person reaps the benefits of their 
spirituality and experiences its positive impact on his or her “relationship to 
self, others, nature, life, and whatever one considers to be the Ultimate” 
(Elkins et al., 1988, p. 12).

The authors report SOI subscale reliabilities ranging from 0.75 to 0.95 (Elkins 
et al., 1988). Although unpublished and not standardized, the authors have made the 
SOI available for research use. Research employing the SOI has provided additional 
support for the psychometric adequacy of the instrument. Lindquist (1995) found 
Cronbach alphas for SOI subscales ranging from 0.71 to 0.95. Salakar (1998) found 
internal reliabilities ranging from 0.81 to 0.98. Goncalves (2000) found a full-scale 
alpha of 0.98. Other scholars have reported internal consistency reliabilities of 0.97 
(Sherman, 1996) and 0.98 (Smith, 1995). Additionally, correlations between scores 
obtained on each of the nine subscales and total SOI score were all found to be 
significant at p < 0.001 (Goncalves, 2000).

McDonald and Friedman (2002) describe the SOI as rare among measures of 
spirituality and highlight that there is good support for its content validity. They also 
describe the SOI as “one of the first and, to date, one of the most effective efforts at
devising a measurement of spirituality that minimizes the confound with conventional
religion and religiousness" (MacDonald & Friedman, 2002, p. 108).

NEO Five-Factor Inventory

The NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992) is a 60-
item paper-and-pencil test of normal personality which is based upon the Five-Factor
model of personality. The instrument takes between 10 and 15 minutes to complete.
Items are scored on a 5-point Likert scale ranging from strongly disagree to strongly
agree and scores for each item range from 0 to 4. The NEO-FFI includes 33 items
scored in the positive direction and 27 items scored in the negative direction. This
measure yields five individual scores, one for each of the following five domains:
Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness (Costa
& McCrae, 1992). The five domains can be described as follows:

Neuroticism (N): At the core, this domain assesses the “the general tendency
to experience negative affects” and a general level of emotional stability (p.
14). Individuals who are higher in N are more inclined to be impulsive, have
poor coping skills, and experience irrational ideas. Those lower in N tend to
be more emotionally stable, relaxed, and able to face stressful situations
without becoming overwhelmed (Costa & McCrae, 1992, p. 15).

Extroversion (E): At a very basic level, this factor describes an individual’s
overall level of preference for interpersonal activity and external stimulation.
Individuals high in Extroversion (E) tend to enjoy excitement, stimulation, and
participation in social gatherings. They are often described as assertive,
talkative, and have an upbeat disposition (Costa & McCrae, 1992, p. 15). Those low in E tend to be more reserved, independent, and demonstrate a preference for solitary activities (Costa & McCrae, 1992, p. 15).

Openness to Experience (O): Briefly stated, this domain assesses for a general sense of openness to, and curiosity about, the world (Costa & McCrae, 1992). High O is indicative of a person willing to entertain novel or unconventional ideas and opinions, who appreciates variety and aesthetics, and has a higher level of overall intellectual curiosity. Individuals high in O also tend to experience emotions more intensely than those lower in O. Those low in O tend to prefer familiarity, have a narrower interests, and hold more conventional and conservative perspectives (Costa & McCrae, 1992, p.15).

Agreeableness (A): At the most basic level, this factor relates to the continuum between altruistic compassion and egocentric antagonism. On the high side of A, individuals are more likely to be helpful and sympathetic. On the low end of A, individuals tend to be skeptical and critical (Costa & McCrae, p.15).

Conscientiousness (C): The core of this domain measures the continuum of individual differences in tendencies to plan, organize, and execute tasks (Costa & McCrae, 1992, p.16). Individuals high in C are punctual, reliable, hard-working, strong-willed, self-motivated, and determined. Those lower in C tend to be more carefree, less purpose-driven, and “more lackadaisical” (Costa & McCrae, 1992, p.16)
Each domain is measured by 12 items and raw domain scores range from 0 to 48. The NEO-FFI has been standardized and T-Scores can be yielded from raw domain scores. Samples of items appearing on the NEO-FFI are “I really enjoy talking to people” and “I work hard to accomplish my goals” (Costa & McCrae, 2003)\(^1\). The test’s manual reports internal consistencies for the five NEO-FFI domains ranging from 0.68 to 0.86 (Costa & McCrae, 1992).

The NEO-FFI is a shortened version of the 240-item NEO Personality Inventory-Revised (NEO PI-R; Costa & McCrae, 1992). The NEO PI-R yields six facet scores under each of the five domains, in addition to producing global scores for each of the five factors. The authors report correlations between the five NEO-FFI scales and their respective NEO PI-R domain scales ranging from 0.77 to .92 (Costa & McCrae, 1992). The NEO-FFI demonstrates sound test-retest reliability (Botwin, 1995) and its psychometric properties have been adequately developed (Juni, 1995).

Demographic Questionnaire

The Demographic Questionnaire (DQ) was constructed by this author as a short survey to obtain descriptive information about participants. In addition to requesting information about age, sex, academic class level, race/ethnic origin, and academic major, the DQ also solicits religious preference, if any. Further, the questionnaire includes four items pertaining to individual spirituality, religiosity, and frequency of religious activity. Each of these four items is scored on an eight-point scale.

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\(^1\) Adapted and reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the NEO Five-Factor Inventory by Paul Costa and Robert McCrae, Copyright 1978, 1985, 1989, 1991, 2003 by PAR, Inc. Further reproduction is prohibited without permission of PAR, Inc.
scale from 1 to 8. A copy of the Demographic Questionnaire can be found in Appendix D.

Procedure

Participation in this study was voluntary and the author offered no incentives for participation. After doctoral dissertation committee approval of the study, permission to proceed with the study was requested and obtained from the Human Subjects Institutional Review Board (HSIRB, Appendix E). After obtaining approval from HSIRB, the author solicited permission from University professors to utilize approximately five minutes of their class time to recruit student participants for this study. To foster greater diversity within the sample, instructors of a wide variety of both undergraduate and graduate courses were approached for this permission. By the end of data collection, participants from 26 different undergraduate and graduate courses, representing 48 undergraduate academic majors and 14 fields of graduate study, had participated in this study.

After a recruitment script was read, students were given the opportunity to ask questions about the study. Following this, interested participants were given an envelope containing the three research instruments and a copy of the anonymous informed consent document. Participants were asked to complete the testing materials at home and return them to the author during their next class session. Instruments were placed in the envelopes in the order in which they were requested to be completed; participants were instructed to complete the materials in the following order: DQ, NEO-FFI, SOI. The author and course instructors prearranged a time for
the author to collect research packets during the next class session. Approximately 375 packets of test materials were distributed throughout the recruitment process; 254, at least partially, completed packets were returned, yielding a return rate of approximately 68%.

Data Entry

All data collected were entered into SPSS for Windows version 11.5.0. The categorical items on the DQ were coded as follows: for “Sex”, males were coded as “1” and females were coded as “2”. For “Academic Class Level”, undergraduate students were coded as “1” and graduate students were coded as “2”. For “Race/Ethnic Origin”, White was coded as “1”. Black/African American was coded as “2”, Hispanic/Latin American was coded as “3”, Asian was coded as “4”, Native Hawaiian/Other Pacific Islander was coded as “5”, Native American/Alaskan Native was coded as “6”, Middle Eastern/Other Arabic Descent was coded as “7”, and Biracial was coded as “8”. For those that selected the option to provide a written specification for Race/Ethnic Origin in the space offered, responses was coded “0” for “other” and their specified response was entered into SPSS as a string variable.

Responses provided to the items “Academic Major/Field of Graduate Study” and “Religious Preference, if any” were also entered into the dataset as string variables. All coded items (i.e. “Sex”, “Academic Class Level”, and “Race/Ethnic Origin”) left blank were coded as “9999”; all string variables (i.e. “Academic Major/Field of Graduate Study” and “Religious Preference, if any”) left blank were recorded as “Did not specify”. The four questions pertaining to spirituality, religiosity,
and religious activity were each coded with the numbers that appear on the DQ (i.e. they were coded from “1” to “8”).

The NEO-FFI contains 27 items that are reversed scored. However, when the response sheet is removed, a carbon-copy underlay is revealed and response options appear with their corresponding numerical values. That is, there was no need to manually reverse-score the items as they already appeared with their appropriate numerical value.

The SOI contains 20 negatively worded items that required reverse scoring (Elkins, 1986). Once all participant responses were entered, the author employed the “Recode” command provided by SPSS to recode items as follows: “1” became “7”, “2” became “6”, “3” became “5”, “4” remained “4”, “5” became “3”, “6” became “2”, and “7” became “1”.

Once data entry was completed, the author employed the “Compute” command in SPSS to compute raw scores for each of the five factors of the NEO-FFI, total SOI score, and for each of the nine SOI subscales/dimensions. Further, the author used the gender-specific means and standard deviations provided in the NEO-FFI manual (Costa & McCrae, 1992) and the “Compute” command in SPSS to compute a T-Score from the raw scores for each participant on each of the five NEO-FFI domains.

The SPSS command “Recode” was used to create a categorical grouping variable to identify whether a participant total SOI score fell within the low, average, or high range. “Low” scores were defined as any total SOI score that fell below 335;
that is, any score that was one standard deviation below the obtained sample mean. Low scores were coded “1”. “Average” scores were defined as falling between 336 and 486 and were coded as “0”. “High” scores were defined as any SOI total score that was above 487; that is, any score that fell above one standard deviation from the mean. High scorers were coded as “2”. These categories were used to create groups to explore hypothesis 2. All of the aforementioned scores were added to the data set as new variables.
CHAPTER IV

RESULTS

Preliminary Analyses

Frequencies and descriptive statistics were computed for all demographic variables. Means and standard deviations were computed on the SOI total score and subscale scores, on each of the NEO-FFI factor T-Scores, and on the religious and spiritual questions from the DQ. These are summarized in Table 4. Internal consistency reliability estimates (coefficient alpha) were obtained for each of the SOI subscales, the SOI total scale, and for the five scales of the NEO-FFI. Internal consistency reliability estimates can be found in Table 5 for the SOI and Table 6 for the NEO-FFI. Intercorrelations among the subscales for both the SOI and NEO-FFI were also computed. A correlational matrix for the scales of the SOI can be found in Table 7. The intercorrelations among NEO-FFI scales can be found in Table 8.
Table 4

*Means and Standard Deviations of Scores across Instruments*

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<th>Scale</th>
<th>Mean</th>
<th>Standard Deviation</th>
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<td><strong>SOI</strong></td>
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<tr>
<td>SOI Total Scale</td>
<td>411.04</td>
<td>76.21</td>
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<tr>
<td>Transcendent</td>
<td>55.63</td>
<td>19.16</td>
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<tr>
<td>Meaning and Purpose in Life</td>
<td>51.54</td>
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<tr>
<td>Mission in Life</td>
<td>45.88</td>
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<td><strong>NEO-FFI</strong></td>
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<td>Neuroticism</td>
<td>50.34</td>
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<td>Extroversion</td>
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<tr>
<td>Openness to Experience</td>
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<tr>
<td>Agreeableness</td>
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<td>Conscientiousness</td>
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<tr>
<td>Religious Person</td>
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<td>1.991</td>
</tr>
<tr>
<td>Spiritual Person</td>
<td>5.21</td>
<td>1.896</td>
</tr>
<tr>
<td>Religious Service Attendance</td>
<td>4.14</td>
<td>2.092</td>
</tr>
<tr>
<td>Other Religious Activity</td>
<td>2.90</td>
<td>1.812</td>
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Table 5

*Internal Consistency Reliability Estimates for SOI Scales*

<table>
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</thead>
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</tr>
<tr>
<td>SOI Total Scale</td>
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</tr>
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<td>Transcendent</td>
<td>.95</td>
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<tr>
<td>Meaning and Purpose in Life</td>
<td>.86</td>
</tr>
<tr>
<td>Mission in Life</td>
<td>.86</td>
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<td>Sacredness of Life</td>
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<td>Material Values</td>
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<td>Awareness of the Tragic</td>
<td>.57</td>
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<tr>
<td>Fruits of Spirituality</td>
<td>.96</td>
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</table>

Table 6

*Internal Consistency Reliability Estimates for NEO-FFI Scales*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
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<td>Neuroticism</td>
<td>.84</td>
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<tr>
<td>Extroversion</td>
<td>.79</td>
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<tr>
<td>Openness to Experience</td>
<td>.75</td>
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<tr>
<td>Agreeableness</td>
<td>.73</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.82</td>
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</tbody>
</table>
Table 7

*Intercorrelations of SOI Subscales*

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<th>3</th>
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<th>7</th>
<th>8</th>
<th>9</th>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Meaning and Purpose in Life</td>
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<td>1.00</td>
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</tr>
<tr>
<td>Mission in Life</td>
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<td>.746</td>
<td>.859</td>
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<tr>
<td>Sacredness of Life</td>
<td>.803</td>
<td>.640</td>
<td>.705</td>
<td>.654</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Material Values</td>
<td>.805</td>
<td>.721</td>
<td>.736</td>
<td>.693</td>
<td>.578</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altruism</td>
<td>.659</td>
<td>.395</td>
<td>.537</td>
<td>.560</td>
<td>.581</td>
<td>.497</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Idealism</td>
<td>.668</td>
<td>.431</td>
<td>.583</td>
<td>.602</td>
<td>.645</td>
<td>.367</td>
<td>.671</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>Awareness of the Tragic</td>
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<td>.438</td>
<td>.537</td>
<td>.476</td>
<td>.471</td>
<td>.466</td>
<td>.359</td>
<td>.301</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Fruits of Spirituality</td>
<td>.898</td>
<td>.930</td>
<td>.782</td>
<td>.759</td>
<td>.587</td>
<td>.741</td>
<td>.430</td>
<td>.445</td>
<td>.438</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note. p < .01 for all correlations.*

Table 8

*Intercorrelations of NEO-FFI Scales*

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>E</th>
<th>O</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor N</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor E</td>
<td>-.310**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor O</td>
<td>-.028</td>
<td>.056</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor A</td>
<td>-.310**</td>
<td>.300**</td>
<td>.040</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Factor C</td>
<td>-.326**</td>
<td>.187**</td>
<td>-.036</td>
<td>.275**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note. **p < .01.*
Primary Analyses

*Hypothesis 1*: The five factors, in combination, accounted for a significant amount of variation in spiritual orientation. Multiple regression was used to test this hypothesis. In the absence of adequate research support or theory to suggest the manner in which spirituality can be “predicted” from personality, T-Scores on each of the five personality factors were entered simultaneously into the regression equation (Myers & Wells, 2003; Wampold & Freund, 1987). Listwise exclusion of missing scores was also employed. The resulting test statistic, $F [5, 186]$, value obtained for the sample was 9.764 and demonstrated statistical significance at $p < .000$.

Hypothesis 1 was supported, providing evidence that Spiritual Orientation can, at least partially, be “predicted” by some combination of the five factors of personality.

*Hypothesis 1A* through *IE* were tested by correlating the T-Scores for each of the five personality factors with SOI total score, employing pairwise exclusion of missing scores. Table 9 displays the results of these correlations.

*Hypothesis 1a*: *Extroversion* will demonstrate a significant positive relationship to spirituality. The Pearson Correlation Coefficient, $r (N = 193)$, obtained was .244 and significant at $p < .001$; Hypothesis 1a was supported. The support for this hypothesis suggests that those higher in spiritual orientation also tend to be more extroverted and enjoy the company of others, and possess an upbeat disposition.

*Hypothesis 1b*: *Agreeableness* will demonstrate a significant positive relationship to spirituality. The Pearson Correlation Coefficient, $r (N = 194)$, obtained was .270 and significant at $p < .000$; Hypothesis 1b was also supported. The support
for this hypothesis suggests that those that are more spiritually oriented also tend to be more compassionate, helpful, and altruistic.

_Hypothesis 1c: Openness to Experience_ will demonstrate a significant positive relationship to spirituality. The Pearson Correlation Coefficient, \( r (N=195) \), obtained was .257 and significant at \( p < .000 \); Hypothesis 1c was supported. Not surprising, those higher in spiritual orientation appear to be more open and curious about the world and have a tendency to experience their lives and emotions more richly than those lower in O.

_Hypothesis 1d: Conscientiousness_ will demonstrate a significant positive relationship to spirituality. The Pearson Correlation Coefficient, \( r (N=196) \), obtained was .238 and significant at \( p < .001 \); Hypothesis 1d was supported. The support for this hypothesis suggests that those more spiritually oriented also tend to be more reliable, self-motivated, determined, and goal-directed. One potential explanation for this may relate to the sense of duty or purpose they may have in their lives.

_Hypothesis 1e: Neuroticism_ will demonstrate a negative relationship to spirituality. The Pearson Correlation Coefficient, \( r (N=195) \), obtained was -.080 with significance of \( p = .265 \). Neuroticism did demonstrate a negative relationship to spirituality, however it was not significant. Hypothesis 1e was only partially supported. While not statistically significant, it is notable to mention that this finding provides some evidence to substantiate the hypothesis that spirituality may lend itself to a decreased frequency of negative affect.
**Hypothesis 2:** A significant difference in personality characteristics will exist between persons with high spiritual orientations and persons with low spiritual orientations. An Independent Samples t-test was computed to compare differences in T-Score means on each of the five personality factors between groups formed by classification as high or low in spiritual orientation. Levene's Test for Equality of Variances was insignificant; thus, equal variance within personality factor scores was assumed to exist between the two groups. Significant differences were found to exist between the high and low spiritual orientation groups on two of the five personality variables: *Openness to Experience* and *Agreeableness*. Respectively, the \( t \) values obtained were \( t[52] = -3.407 \) \((p < .001)\) and \( t[52] = -2.986 \) \((p = .004)\). The high spiritual orientation group obtained higher means than the low spiritual orientation group on each of these two factors. Again, these findings suggest that individuals higher in spiritual orientation are more willing to entertain novel ideas, demonstrate greater curiosity about the world, and tend to be more compassionate and helpful than those less spiritually inclined. Noteworthy, but statistically insignificant, the high spiritual orientation group averaged lower on *Neuroticism* and higher on both *Extroversion* and *Conscientiousness*, as compared to the low spiritual orientation group.

**Hypothesis 3:** There will be a significant relationship between personality factors and self-reported levels of religious activity. The third hypothesis was tested by correlating responses to questions 9 and 10 from the DQ with scores on all five of the personality factors from the NEO-FFI. Frequency of attendance of religious
services (DQ question #9) demonstrated a significant negative relationship with the Openness to Experience personality variable. The Pearson Correlation Coefficient, \( r \) \((N = 233)\), obtained was \(-.215\) with significance of \( p < .001 \). Frequency of attendance of religious services (DQ question #9) demonstrated a significant positive relationship with the Conscientiousness personality variable. The Pearson Correlation Coefficient, \( r \) \((N = 235)\), obtained was \(.132\) with significance of \( p = .042 \). Frequency of participation in activities at a place of worship (DQ question #10) demonstrated a significant positive relationship with the Extroversion personality factor. The Pearson Correlation Coefficient, \( r \) \((N = 232)\), obtained was \(.133\) with significance of \( p = .044 \).

**Hypothesis 4:** There will be a significant relationship between spiritual orientation and self-reported levels of religious activity. This hypothesis was tested by correlating responses to questions 9 and 10 from the DQ with total SOI scores. Both frequency of attendance of religious services (DQ question #9) and frequency of participation in activities at a place of worship (DQ question #10) demonstrated a significant positive relationship with total Spiritual Orientation. Respectively, the Pearson Correlation Coefficients, \( r \) \((N = 203)\), obtained were \(.533\) and \(.491\) with statistical significance of \( p < .000 \) for both correlations. The implication of this finding is that, while the SOI avoids use of overtly religious terminology, the instrument has demonstrated success in measuring spiritual orientation in a sample of individuals who are highly active within their religious faith(s).

**Hypothesis 5:** Males and females will differ significantly in spiritual orientation. An independent samples t-test was computed to compare means for total
scores on the SOI between males ($M_{\text{males}} = 391.6$) and females ($M_{\text{females}} = 421.8$).

Levene's Test for Equality of Variances was insignificant; thus, equal variances in SOI total score was assumed to exist within each of the two groups. A t-test revealed that the difference in total SOI score between males and females was statistically significant at $p = .007$, with $t[201] = -2.731$.

**Hypothesis 6:** Age will demonstrate a significant correlation with spiritual orientation. This hypothesis was tested by correlating age with total SOI score. The Pearson Correlation Coefficient, $r(N=202)$, obtained was .283 with statistical significance of $p < .000$. One interpretation suggested by this finding is that spiritual orientation becomes enhanced as we age.

Table 9

**Correlations between NEO-FFI and SOI Subscales**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Factor N</th>
<th>Factor E</th>
<th>Factor O</th>
<th>Factor A</th>
<th>Factor C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total SOI Scale</td>
<td>-.080</td>
<td>.244**</td>
<td>.257**</td>
<td>.270**</td>
<td>.238**</td>
</tr>
<tr>
<td>Transcendent</td>
<td>-.026</td>
<td>.164*</td>
<td>.150*</td>
<td>.131</td>
<td>.209**</td>
</tr>
<tr>
<td>Meaning and Purpose in Life</td>
<td>-.122</td>
<td>.177**</td>
<td>.192**</td>
<td>.259**</td>
<td>.211**</td>
</tr>
<tr>
<td>Mission in Life</td>
<td>-.055</td>
<td>.249**</td>
<td>.162*</td>
<td>.247**</td>
<td>.201**</td>
</tr>
<tr>
<td>Sacredness of Life</td>
<td>-.138*</td>
<td>.245**</td>
<td>.476**</td>
<td>.260**</td>
<td>.163*</td>
</tr>
<tr>
<td>Material Values</td>
<td>-.077</td>
<td>.026</td>
<td>.140*</td>
<td>.265**</td>
<td>.116</td>
</tr>
<tr>
<td>Altruism</td>
<td>-.150*</td>
<td>.281**</td>
<td>.335**</td>
<td>.400**</td>
<td>.180**</td>
</tr>
<tr>
<td>Idealism</td>
<td>-.129</td>
<td>.408**</td>
<td>.279**</td>
<td>.423**</td>
<td>.225**</td>
</tr>
<tr>
<td>Awareness of the Tragic</td>
<td>.005</td>
<td>.008</td>
<td>.228**</td>
<td>.021</td>
<td>.191**</td>
</tr>
<tr>
<td>Fruits of Spirituality</td>
<td>-.033</td>
<td>.176**</td>
<td>.033</td>
<td>.144*</td>
<td>.208**</td>
</tr>
</tbody>
</table>

*Note.* *$p < .05$** *$**$p < .01$
CHAPTER V

DISCUSSION

Overall, findings in the current study appear to support the contention that spirituality and personality are related in a multidimensional manner. Several of the research hypotheses were substantiated which adds further support for the relationships that have been uncovered in previous studies (e.g. MacDonald, 2000; Piedmont, 1999). More specifically, overall Spiritual Orientation demonstrated a statistically significant positive correlation with the E, O, A, and C factors of the FFM, all at a significance level of \( p < .01 \). These findings suggest that individuals higher in Spiritual Orientation are also more likely to be more interpersonally-oriented and outgoing, compassionate, open to new ideas and activities, and demonstrate greater diligence in their daily lives.

As hypothesized, N was the only factor that was inversely related to Spiritual Orientation. While N was negatively correlated with total SOI score, this relationship was not statistically significant. Nonetheless, there appeared to be some additional support for the inverse relationship between N and spiritual variables found by Lindquist (1995) and MacDonald (2000). Furthermore, N demonstrated statistically significant \( (p < .05) \) negative correlations with the Sacredness of Life and Altruism subscales of the SOI. These findings suggest that individuals more prone to experiencing negative affect would be less likely to recognize the sacredness in everyday life and may tend to lack a strong sense of social responsibility.
Alternatively, individuals limited in a sense of altruism and those who do not find the sacred in the ordinary may be more susceptible to the experience of emotional distress.

Further examination of analyses at the SOI subscale level reveals that the E, O, A, and C, personality factors each demonstrated a statistically significant positive correlations with at least seven of the nine SOI subscales; many of these relationships were significant at the \( p < .01 \) level. Of course, with correlational studies, causation cannot be established. As such, and because of the large number (32 in total) of statistically significant correlations observed at the subscale level, a detailed discussion of the various possible interpretations of these observed relationships will not be included. In short, it appears that there is substantial overlap in the characteristic qualities that are measured by both the SOI and NEO-FFI. Further exploration at the facet level, employing the NEO-PI-R, may provide more definitive insight into the nature of these numerous points of convergence.

Nonetheless, findings from this study appear to suggest that a significant portion of spiritual orientation can be “predicted”, or explained, by a combination of the E, O, A, and C personality factors. Again, it remains unclear as to whether or not spirituality is influenced by personality disposition or if personality influences the development and expression of spiritual orientation. Regardless, considerable overlap between these two constructs was observed and a deeper exploration of this relationship appears to be warranted.
In terms of advancing the current state of the literature, it is imperative to mention that those who reported high levels of religious activity, as measured by items 9 and 10 on the DQ, also endorsed higher levels of spiritual orientation. This finding provides added support for use of the SOI in future studies exploring a more secularly defined spirituality. That is, despite the absence of overtly theistic terminology on the SOI, the instrument appears to have adequately captured the spiritual orientation of participants involved in more traditional religious activities and practices. The personological points of convergence and divergence between the highly spiritual and religiously active group and the group comprised of those less religiously inclined but also high in spiritual orientation, would be a valuable starting point for exploring the psychological phenomena that may contribute to these different dispositions.

The current study revealed a significant correlation between SOI score and chronological age ($r = .283, p < .000$). When the theory of postformal thought is applied to spiritual development, the nature and extent of spirituality is confined by the current level of cognitive development in individuals (Cartwright, 2001; Griffin et al., 2009; Sinnott, 1998). However, it is believed that both cognitive and spiritual development can be stimulated by adversity and conflict. It follows that spiritual orientation may vary more in accordance with life experiences than it does alone with age (Wink & Dillon, 2002). Of course, spiritual development may also be a function of one’s stage of psychological development and of the goals and tasks relevant to the individual during that particular stage. The significant positive correlation between
chronological age and SOI score observed in this study appears to support this idea, as well.

While this study revealed statistically significant correlations between Spiritual Orientation and four of the five factors of the FFM, it remains unclear if spirituality is a construct already represented within the FFM of personality. These observed correlations may, in fact, indicate that the major components of spiritual orientation can already be located among the attributes which comprise the E, O, A, and C factors of personality. Further, some scholars contend that spirituality may actually represent a previously unidentified sixth dimension of personality (MacDonald, 2000; Piedmont, 1999).

Through thorough examination of the universal aspects of numerous different faith traditions, Piedmont (1999) identified a construct he termed “spiritual transcendence” and proposed that spiritual transcendence may characterize a sixth factor of personality. Spiritual transcendence is defined as the capacity to step outside immediate circumstance and examine the fundamental unity that underlies all of life (Piedmont, 1999). Piedmont (2001) contends that spirituality represents a unique dimension of individual differences which can help us better understand individual motivation and goal-seeking behavior. Such arguments have led to the hypothesis that spirituality may function as a characteristic adaptation, much like other personality dispositions (Donofrio, 2004); a suggestion which only compels future research in this area.
Limitations of the Study

Spirituality is increasingly conceptualized as a multidimensional construct within the literature; the instrument employed in the current study, inherently, captures only a few aspects of this highly complex construct. Thus, results are bound by the value base and operationalization of spirituality employed by the authors of the SOI (Moberg, 2002). Also, the sample upon which results are based consists of Midwestern university students and, as a result, findings can only be generalized to this population. Another limitation of this study is that it employed an abbreviated measure of normal personality (i.e. the NEO-FFI); use of the full version NEO-PI-R may provide greater insight into the specific individual personality differences through examination of the facet scales contained within that instrument.

In order to develop a comprehensive understanding of spirituality and meaningful variations in the construct, it is necessary to examine these qualities in a culturally diverse sample. This study is limited in that it is based on a somewhat homogenous sample, largely lacking in racially and ethnically diverse individuals. Further, Table 3 displays the religious preferences reported by participants and highlights that this sample is predominantly comprised of individuals who identify with some form of Christianity. As atheists, agnostics, and adherents to non-Christian religions were vastly underrepresented in the sample, this study was unable to adequately capture and explore variations in personality and spiritual orientation within a spiritually diverse population.
Finally, while participants ranged in age from 18- to 59-years old, almost half of the participants were between the ages of 21- and 23-years old. Although SOI scores were significantly correlated with age, SOI score comparisons between groups of older and younger individuals was not possible due the low number of older individuals represented within the sample. Comparisons of this nature would likely yield a greater understanding of the variations in spiritual orientation that may exist between individuals at different stages of psychological development.

Implications for Practice

Therapeutic dialogue surrounding meaning making of life events is one avenue through which issues of a spiritual nature may be discussed in therapy without delving directly into specific religious or spiritual beliefs (Steger & Frazier, 2005). For instance, to tap into the spiritual significance of a client’s presenting problem, a therapist may say, “you mentioned that you are experiencing some difficulty with…, what does that mean for you?” Other approaches include asking a client how they have derived meaning from traumatic situations in their past and from where they have drawn strength during times of adversity in the past. These questions would likely evoke a sense of the client’s spiritual orientation and whether it may be a source of strength which could be drawn upon to help facilitate therapeutic growth. This approach would also allow therapists and clients from differing spiritual orientations to discuss spiritual issues without directly confronting any dogmatic beliefs that could potentially disrupt the therapeutic alliance. When used appropriately and with
sensitivity, psychospiritual interventions can be an effective approach to alleviating psychological distress (Richards & Bergin, 2005; Stanard et al., 2000).

To some practitioners, assessment of spiritual beliefs may seem slightly invasive or outside the realm of traditional psychotherapy. However, researchers have found that many clients demonstrate a preference for discussing issues related to spirituality within the therapeutic environment (Rose, Westefeld, & Ansley, 2001). Research has also revealed that spiritual distress can impact and, sometimes, intensify the problems that bring clients into counseling (Johnson & Hayes, 2003).

In a study examining the beliefs and preferences of psychotherapy clients, participants indicated that they believe spiritual concerns are appropriate topics for discussion within psychotherapy (Rose et al., 2001). These results were based on a sample of 10 male and 64 female (N = 74) clients ranging in age from 18- to 67-years-old. Study participants also endorsed a preference for discussing spiritual issues within the context of therapy (Rose et al., 2001).

Similarly, Johnson and Hayes (2003) studied the prevalence of spiritual and religious concerns within a sample comprised of university counseling center clients and non-client college students from 39 schools across the United States. A total of 5,472 males and females, averaging 22.5-years old (SD = 5.4), participated in this study. Within the non-client university student sub-sample (n = 2,718), approximately one-fourth of the students reported that they were experiencing at least moderate distress related to a religious or spiritual concern in their life (Johnson & Hayes, 2003). Among the group of counseling center clientele (n = 2,754), almost one in
three participants reported at least some level of distress related to a spiritual or religious issue they were currently experiencing (Johnson & Hayes, 2003). This research is briefly presented to substantiate the relevance of spirituality within the therapeutic environment and to highlight the need for at least some level of spiritual assessment during treatment planning and psychotherapy. For more detailed information on incorporating spirituality and religion into psychotherapy, the interested reader is referred to Kelly (1995) and Richards and Bergin (2005).

Implications for Training

Counseling psychology, as a psychological specialty, is committed to addressing issues of cultural diversity in professional research, training, and practice. This dedication to promotion of cultural sensitivity and multicultural competency is one of the defining features that sets counseling psychology apart from other psychological disciplines. Despite substantial research support for the psychological benefits of spirituality, surveys of counselor training programs have revealed that few programs require and/or provide specific coursework on religious and spiritual issues and how to appropriately address these factors within the therapeutic environment (Brawer, Handal, Fabricatore, Roberts, & Wajda-Johnston, 2002; Kelly, 1994; Pate & High, 1995; Schulte, Skinner, & Claiborn, 2002).

For instance, Shulte, Skinner, and Claiborn (2002) conducted a survey of counseling psychology programs to assess the degree to which issues related to religion and spirituality are incorporated into students’ training experience. Of the 40 training directors that participated in this study, 82% indicated that their training
program did not offer a specific course devoted to furthering understanding of, or sensitivity to, religious and spiritual issues (Shulte et al., 2002). If counseling psychology is to maintain its precedence at the forefront of multiculturalism, our training programs must commence a more rigorous incorporation of religion and spirituality into diversity training and cultural competencies. The training received by counseling psychology doctoral students, inherently, impacts their later professional work as practitioners, supervisors, researchers, and educators. If spiritual and religious issues are neglected in training programs, it follows that these areas are more likely to be neglected in later professional work, as well.

In order to ethically train or supervise others to appropriately address religious and spiritual issues in psychotherapy, a psychologist must first achieve a level of competence in these areas. Professionals who lack formal training in these areas might consider locating a mentor, taking additional courses, attending a seminar or conference, sponsoring a guest lecturer, and reading the most current literature. With the convenience of the internet, additional learning and training opportunities can be located with greater ease.

Areas for Future Research

The relationship between spirituality and psychology is well-established within the literature (e.g. MacDonald & Friedman, 2002; Ng et al., 2005; Piedmont, 2001; Saroglou, 2002). As such, an important area for future research is on the development and empirical validation of spiritually-based psychological interventions. Simultaneously, additional studies are needed to further explore
secular spirituality as a multidimensional construct. Research of this nature should seek to obtain a culturally diverse sample, including international participants representing various regions of each country participating in the study, and incorporate multiple existing multidimensional measures of spirituality (e.g. ESI, MacDonald, 2000; SOI, Elkins, 1986) with multiple measures of normal personality. Utilizing factor analysis in such studies may facilitate a better psychological understanding of spirituality and quite possibly provide the groundwork for a more comprehensive theory of spirituality.

Future research should also include longitudinal studies designed to examine and assess changes in spirituality over time. Studies of this nature, especially when spirituality is assessed alongside personality, would provide greater insight into the process of spiritual development and the manner in which spirituality is influenced by age, stage of psychological development, and various life events. Such studies would provide a more comprehensive overview of spirituality as a developmental process and offer a richer view of the construct as a constantly evolving phenomenon.

Similarly, in the decade since MacDonald (2000) published his research on the development and validation of the ESI, numerous new measures of spirituality have emerged. It seems a fitting time to replicate MacDonald’s (2000) work by incorporating these additional measures into a factor analytic study with the intent of reconsolidating the library of spirituality measures into a single, comprehensive, multidimensional instrument for use in future research use. If a model of spirituality
is to become a part of mainstream psychology, we must first organize the existing literature, measures, and research. From there, future studies can be more clearly designed to further theory development and enhance our scholarly understanding of the relationship between spiritual variables and psychological health.

Conclusion

The psychology of religion dates back to the turn of the 20th century. However, perspectives on religious or spiritual variables have varied substantially among psychologists since that time. Humanistic psychology renewed the field's interest in the subjective experiences of human beings and paved the way for a more secular integration of spiritual concepts into mainstream psychology. The emergence of multiculturalism has emphasized the need for cultural sensitivity, advocated for greater cultural competency, and has highlighted the importance of training in diversity issues. One of the many components of cultural competence includes the understanding of, and sensitivity to, the impact that spiritual or religious beliefs have on individuals' worldviews.

Accordingly, spirituality and religion have become increasingly popular variables within counseling and psychological literature over the past four decades. While research studies have consistently demonstrated that spirituality is beneficial to psychological health, scholars have not yet consistently agreed upon how best to define or assess the construct. Nonetheless, it has become more widely recognized that spirituality, somehow, enhances psychological functioning.
The purpose of this study was to explore the relationship between personality and spirituality, with the latter defined from a secular, humanistic perspective. The hope was to uncover meaningful relationships that would help provide a better understanding of spirituality as a secular construct. To help accomplish this, spiritual orientation, a multidimensional conceptualization of spirituality consisting of nine spiritual variables, was examined alongside the personality factors represented within the FFM.

The study revealed support for several of the research hypotheses; however, considerable overlap among the primary research variables precluded straightforward interpretation of the results. Overall, spiritual orientation demonstrated significant correlations with four of the five personality factors that were assessed. Additional research in this area, utilizing a larger and more diverse sample, would likely add additional understanding of spirituality, from a humanistic perspective, and its relationship to personality and other salient psychological processes.
REFERENCES


Appendix A

Permission to Use the SOI
I understand you inquired about the SOI. You have my permission to use the SOI without charge. Do you need a scoring sheet? If so, let me know and I will have to mail it thru the U.S. mail -- as I do not have it on my computer.

David Elkins, Ph.D.
Professor Emeritus of psychology
Pepperdine
Kimberly,
You have my permission to print the inventory and items. I am the sole owner of the copyright and I have allowed the inventory to go into the public domain. However, because this was recent and people do not know this, it would probably be a good idea for you to include a statement such as the following: (You can adapt the statement for the entire inventory in the appendix)

Permission to reprint items from the Spiritual Orientation Inventory was granted by David N. Elkins.
Appendix B

Spiritual Orientation Inventory
<table>
<thead>
<tr>
<th></th>
<th>Intensely Disagree</th>
<th>Intensely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is a transcendent spiritual dimension to life</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2</td>
<td>Whether or not it is always clear to us the universe is unfolding in a meaningful purposeful manner</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3</td>
<td>When I am old and look back at my life I want to feel that the world is a little better place because I lived</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4</td>
<td>Even such activities as eating, work and sex have a sacred dimension to them</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5</td>
<td>My primary goal in life is to become financially secure</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6</td>
<td>I feel a strong identification with all humanity</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7</td>
<td>When I see what is I have visions of what can be</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8</td>
<td>While one should not overdo it or become morbid I think it is good for us to be aware of pain suffering and death</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9</td>
<td>Our highest good lies in harmoniously adjusting ourselves to the transcendent spiritual dimension</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10</td>
<td>I know how to contact the transcendent spiritual dimension</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11</td>
<td>The universe is not yet done but is unfolding in a meaningful way</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12</td>
<td>It is important to search for one's purpose or mission in life</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>13</td>
<td>I do not divide life into sacred and secular I believe all of life is infused with sacredness</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>14</td>
<td>It is much more important to pursue spiritual goals than to pursue money and possessions</td>
<td>1 2 3 4 5 6 7</td>
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<td>15</td>
<td>I seldom show my love for humanity through action</td>
<td>1 2 3 4 5 6 7</td>
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<td>16</td>
<td>In spite of all I continue to have a deep positive belief in humanity</td>
<td>1 2 3 4 5 6 7</td>
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<td>17</td>
<td>I have grown spiritually as a result of pain and suffering</td>
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<td>18</td>
<td>Contact with the transcendent spiritual dimension has given me a sense of personal power and confidence</td>
<td>1 2 3 4 5 6 7</td>
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<td></td>
<td>Intensely Agree</td>
<td>Intensely Disagree</td>
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<td>Number</td>
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<td>Intensely Disagree</td>
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<tr>
<td>37</td>
<td>I have had transcendent spiritual experiences which seem almost impossible to put into words</td>
<td>1 2 3 4 5 6 7</td>
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<td>38</td>
<td>If one has a reason or purpose for which to live, one can bear almost any circumstances</td>
<td>1 2 3 4 5 6 7</td>
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<td>39</td>
<td>I have a sense of personal mission in life I feel I have a calling to fulfill</td>
<td>1 2 3 4 5 6 7</td>
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<td>40</td>
<td>I have never felt a sense of sacredness</td>
<td>1 2 3 4 5 6 7</td>
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<td>41</td>
<td>I have a spiritual hunger which money and possessions do not satisfy</td>
<td>1 2 3 4 5 6 7</td>
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<td>42</td>
<td>I am often overcome with feelings of compassion for human beings</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>43</td>
<td>Idealists are usually just romantic neurotics</td>
<td>1 2 3 4 5 6 7</td>
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<td>44</td>
<td>It seems pain and suffering are often necessary to make us examine and reorient our lives</td>
<td>1 2 3 4 5 6 7</td>
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<td>45</td>
<td>Contact with the transcendent spiritual dimension has enhanced my physical health</td>
<td>1 2 3 4 5 6 7</td>
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<td>46</td>
<td>I have had transcendent, spiritual experiences in which I felt deeply and intimately loved by something greater than I</td>
<td>1 2 3 4 5 6 7</td>
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<td>47</td>
<td>My belief that there is a transcendent, spiritual dimension gives meaning to my life</td>
<td>1 2 3 4 5 6 7</td>
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<td>48</td>
<td>I am personally devoted to what I consider to be a meaningful cause</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>49</td>
<td>Nature often inspires in me a solemn sense of awe and reverence</td>
<td>1 2 3 4 5 6 7</td>
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<td>50</td>
<td>If I had to choose between being rich or being spiritual, I would choose to be rich</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>51</td>
<td>People who know me would say I am very loving and reach out to help others</td>
<td>1 2 3 4 5 6 7</td>
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<td>52</td>
<td>While there is much evil in the world I believe goodness, integrity and love also abound</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>53</td>
<td>Contact with the transcendent spiritual dimension has enhanced my emotional health</td>
<td>1 2 3 4 5 6 7</td>
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<td>54</td>
<td>I have had transcendent spiritual experiences in which I let go and surrendered my life to something</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>55</td>
<td>The fact that we ultimately have to die shows that life is meaningless</td>
<td>1 2 3 4 5 6 7</td>
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<tr>
<td>56</td>
<td>Humans are sometimes called to fulfill a certain spiritual destiny</td>
<td>1 2 3 4 5 6 7</td>
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</table>
I believe it is a mistake to attach sacredness only to religious places, objects, and activities.

Generally I value love and cooperation more than competitiveness.

I believe humans have great potential for goodness and love.

Contact with the transcendent, spiritual dimension has deepened my relationships with others.

I have had transcendent spiritual experiences in which I felt an unusual oneness with and acceptance of the universe.

Even though I may not always understand it, I believe life is deeply meaningful.

I have either found or am searching for my mission in life.

To be honest, I almost never experience a sense of sacredness about anything.

There is no hope for the human race.

Contact with the transcendent, spiritual dimension has helped me to feel closer to my Higher Power.

I have had transcendent spiritual experiences in which deeper aspects of truth seem to have been revealed.

I believe people should just enjoy themselves and not worry about such philosophical issues as the meaning of life.

All I really want from a job is an excellent income so that I can live well and enjoy what money can buy.

In our modern scientific world, we should stop believing in such unscientific ideas as sacredness.

I am very cynical about the human race.

Contact with the transcendent, spiritual dimension has helped me to sort out what is really valuable in life from what is not.

I have had transcendent spiritual experiences in which I felt transformed and reborn into new life.

One can find meaning even in suffering, pain, and death.

Nonreligious people who think of themselves as being spiritual are deceiving themselves.
<table>
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<tr>
<th></th>
<th>Intensely Disagree</th>
<th>Intensely Agree</th>
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<tbody>
<tr>
<td>76</td>
<td>It is good to dream of what can be and to build castles in the air</td>
<td>1 2 3 4 5 6 7</td>
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<td>77</td>
<td>Contact with the transcendent spiritual dimension gives me optimism and energy to live life wholeheartedly</td>
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<td>78</td>
<td>I have had transcendent spiritual experiences in which I was overcome with a sense of awe, wonder, and reverence</td>
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<td>79</td>
<td>Religious people are more spiritual than nonreligious people</td>
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<tr>
<td>80</td>
<td>I have never had a transcendent spiritual experience</td>
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<tr>
<td>81</td>
<td>Spirituality means being part of a church or temple and actively participating in religious activities</td>
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<td>82</td>
<td>Emotionally healthy people do not have transcendent spiritual experiences</td>
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<tr>
<td>83</td>
<td>I often experience feelings of awe, reverence and gratitude even in nonreligious settings</td>
<td>1 2 3 4 5 6 7</td>
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<td>84</td>
<td>I often experience feelings of awe and gratitude in regard to my close friendships</td>
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<td>85</td>
<td>Persons who talk of life being sacred seem a little strange to me. I simply do not experience life in that way</td>
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Appendix C

Demographic Questionnaire
DEMOGRAPHIC QUESTIONNAIRE

1) Sex: ___Male ___Female

2) Age: ___Years ___Months

3) Academic Class Level: ___Undergrad ___Graduate

4) Academic Major/Field of Graduate Study: _______________________________________________________

5) Race/Ethnic Origin:
   *NOTE: Please feel free to specify in the above blank the racial/ethnic group with which you most closely identify OR check one of the following boxes:
   
   ____White
   ____Black/African American
   ____Hispanic/Latin American
   ____Asian
   ____Native Hawaiian/Other Pacific Islander
   ____Native American/Alaskan Native
   ____Middle Eastern/Other Arabic Descent
   ____Biracial

6) Religious Preference, if any:
   *NOTE: Please be as specific as possible (i.e: Baptist, Islam, Catholic, Judaism, etc).
   If you do not have a religious preference, please write “N/A” or “None”.

7) To what extent do you consider yourself a religious person?
   *NOTE: Please select only ONE of the eight possible responses

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Not at all | | | | | | | Extremely Religious |

8) To what extent do you consider yourself a spiritual person?

Continued on next page…
**NOTE:** Please select only **ONE** of the eight possible responses

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<td>Not at all</td>
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<td>Extremely Spiritual</td>
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9) How often do you attend religious services?

**NOTE:** Please select only **ONE** of the eight possible responses

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<tr>
<td>Never</td>
<td>Less than once a year</td>
<td>Once or twice a year</td>
<td>Several times a year</td>
<td>Once a month</td>
<td>Two or three times a month</td>
<td>Once a week</td>
<td>More than once a week</td>
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10) Besides religious services, how often do you take part in other activities at a place of worship?

**NOTE:** Please select only **ONE** of the eight possible responses

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<td>Never</td>
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<td>Once or twice a year</td>
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<td>Once a month</td>
<td>Two or three times a month</td>
<td>Once a week</td>
<td>More than once a week</td>
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Appendix D

Human Subjects Institutional Review Board
Letter of Approval
Date:  May 22, 2009

To:    Joseph Morris, Principal Investigator
        Kimberly Koessel, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re:    HSIRB Project Number: 09-05-13

This letter will serve as confirmation that your research project entitled “The Relationship Between Spirituality and Personality” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination:  May 22, 2010
Appendix E

NEO Five-Factor Inventory
Permission Agreement
Sent Via Email: Kimberly.C.Koessel@wmich.edu

Apr 15, 2010

Kimberly C Koessel
Western Michigan University
550 Kalamazoo Way
Kalamazoo, MI 49008-5834

Dear Ms Koessel,

In response to your recent request, permission is hereby granted to you to include up to a total of three (3) sample items from the NEO Five-Factor Inventory (NEO-FFI) in the Methods/Instrument section of your Dissertation titled, "The Relationship between Spirituality and Personality." If additional material is needed, it will be necessary to write to PAR for further permission.

This Agreement is subject to the following restrictions:

1. The following credit line will be placed at the bottom of the verso of each page or similar front page on any and all material used:

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"W/O COPIES of this Permission Agreement should be signed and returned to me to indicate your agreement with the above restrictions. I will then sign it for PAR and return a fully executed copy to you for your records.

Sincerely,

Yours truly,
Pamela M. McFadden
Permissions Specialist
978-675-4909 (phone)
1-800-444-7411 (fax)

ACCEPTED AND AGREED.

Kimberly C. Koessel
DATE: __________________________

ACCEPTED AND AGREED:

Vicki M. McFadden
DATE: April 16, 2010