DISSERTATION

MODERATION AND MEDIATION OF THE SPIRITUALITY AND SUBJECTIVE WELL-

BEING RELATION

Submitted by

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In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2015

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ABSTRACT

MODERATION AND MEDIATION OF THE SPIRITUALITY AND SUBJECTIVE WELL-BEING RELATION

The present study aims to replicate the finding that spirituality correlates positively with subjective well-being and examines important moderating and mediating variables within this relationship (Koenig and Larson, 2001; Hill and Pargament, 2003). First, spiritual affiliation (religious denomination) is tested as a moderating variable and is found to significantly moderate the positive relationship between spirituality and subjective well-being furthering the case that spiritual affiliation should be considered in this line of research. Next, social support, spiritual support, spiritual strivings, and meaning in life are tested as mediators of the relationship between spirituality and subjective well-being. Social support, spiritual support, and spiritual goals/strivings are not found to mediate the relation between spirituality and subjective well-being, but meaning in life fully mediates this relationship suggesting that meaning in life may play a key role in understanding the spirituality and subjective well-being relation. Finally, a combined mediated moderation analysis is tested with spiritual affiliation as the moderating variable and meaning in life as the mediating variable. Evidence for mediated moderation was not found. Implications for future research and clinical practice are discussed.

ACKNOWLEDGEMENTS

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Introduction

Beginning with the early works of William James, spirituality has been an area of scientific study with implications for many facets of the human experience. Whether exploring the costs and benefits of religious affiliation or measuring outcomes of religious attendance, researchers have taken on the task of learning about a phenomenon that is difficult to measure and is often fraught with ambiguity and controversy. Early studies focused on prejudice and pathology associated with religious belief whereas the last two decades of research have moved in the direction of examining how to define and measure spirituality in ways that facilitate investigation of its outcomes (Emmons & Paloutzian, 2003; Hall, Meador, & Koenig, 2008).

Many variables have been tested in this burgeoning literature with a variety of promising findings suggesting a consistent link between spirituality and health and well-being (e.g. George, Larson, Koenig, & McCullough, 2000; Idler, Boulifard, Labouvie, Chen, Krause, Contrada, 2009; Koenig & Larson, 2001; Powell, Shahabi, & Thorensen, 2003). Researchers have argued that the basic positive link between spirituality and well-being has long been established and have called for more sophisticated models to further explain the link in more detail (Hill & Pargament, 2008). A variety of moderators and mediators, which will be explored in more detail, have been tested with promising results that explain significant portions of the variance between health and spirituality. The purpose of this study is to test some of the established mediators in the context of several religious or spiritual denominations or traditions, attempting to further explain the positive relationship with subjective well-being.

Defining Spirituality and Religiousness

The similarities and differences of the terms *spiritual* and *religious* have received much attention in the literature. More than a decade ago, Hill and Hood (1999) conducted an exhaustive review of tools designed to measure religiousness/spirituality and found over 100 different available measures which serves to demonstrate the wide variety of conceptualizations and measurement strategies researchers have put forth. Researchers have posited a wealth of arguments and crafted a variety of studies designed to answer which of the terms is preferred in psychological research, which term is the broader more encompassing of the two, and if the terms represent different constructs altogether (Hill, Pargament, Hood, McCullough, Swyers, Larson, & Zinnbauer, 2000; Shafranske & Malony, 1990; Wulff, 1997; Zinnbauer & Pargament 1997; Zinnbauer & Pargament, 1999). Particular attention to the terms and constructs used in the study of religion is, however, warranted given that historically, the definitions used to define spirituality/religiousness have indeed been found to influence findings in religiousness and spirituality research (Hackney & Sanders, 2003).

Several theoretical and empirical attempts have been made to define and separate the terms spiritual and religious with limited success. These attempts have included asking experts such as members of the clergy define or rate descriptions and definitions or by more ideographic methods asking participants to define spiritual and religious in their own terms. This method of study has consistently demonstrated ambiguous and often conflicting findings (Hyman & Handal, 2006; Zinnbauer & Pargament, 1997). Hill et al. (2000) discussed the importance of exercising caution when operationalizing variables within the realm of religion. Specifically, the authors outlined the rich overlap that exists between the terms religious and spiritual and warn against viewing the terms as entirely distinct. They argue that to view the terms as mutually

exclusive is an oversight that ignores the multidimensional nature of the constructs and the interaction that exists between them.

Hill and Hood (1999) stated that in the general public, the term "spirituality" has adopted connotations of a more positive personal experience of transcendence whereas "religiousness" has taken on a more pejorative connotation representing a construct that is rooted in authority and tradition. Zinnbauer et al (1999) stated that "the present day American religious and spiritual landscape reflects a decline in many traditional religious institutions, an increase in personalized and individualized forms of expression, and a culture of religious pluralism" (p. 892). The authors conclude that "even the meanings of the central constructs themselves, religiousness and spirituality, are subject to diverse interpretations" (p. 892). However, Pargament et al. (2000) warned that polarizing the terms religion and spirituality runs the risk of labeling religion as "bad" and spirituality as "good." They argued that this distinction would be based on false definitions of the terms and a broad assumption that "religious" refers to an organization or institution of dogma and ritual whereas "spiritual" refers to an individual expression or connection. Rather, Pargament et al. (2000) stated that "spirituality is at the heart and soul of religion" (p. 13).

Overall, it seems that people who view themselves as spiritual tend to see more of a distinction between the terms spiritual and religious whereas participants that identify as religious tend to see less of a distinction (Ammerman, 2013; Pargament et al., 2000). Zinnbauer et al. (1997) confirmed this notion reporting that of their large diverse sample, 78% identified as religious whereas 90% identified as spiritual; and in fact, most studies over the past several decades have found that nearly all who identify as religious also identify as spiritual. This again

supports the notion that spirituality, as a construct, is central to religion, and that the concepts overlap considerably.

Although there has been little evidence that the constructs religiousness and spirituality are easily distinguishable, researchers have reported that people defining themselves as "spiritual but not religious" is a relatively new and growing trend that may warrant further investigation. In fact, some researchers have found generational differences, with college-aged students reporting higher frequencies of spiritual but not religious identity than older adults (Hyman & Handal, 2006; Roof & Greer, 1993; Zinnbauer et al., 1997).

Zinnbauer et al. (1997) conducted a study aimed at measuring similarities and differences between participants who self-identified as "spiritual," "religious," "spiritual and religious" or "spiritual but not religious" with interesting findings regarding those who identified as "spiritual but not religious." Compared to participants who rated themselves as "spiritual and religious," those who identified as "spiritual but not religious" were found to evaluate religion less positively, were less likely to engage in traditional forms of worship, and were less likely to hold traditional or orthodox beliefs. Furthermore, those who identified as "spiritual but not religious" were more likely to be independent and agnostic, hold "new age" beliefs and report mystical experiences, and view religion and spirituality as separate concepts with more pejorative views regarding religion. These findings are consistent with Roof and Greer's (1993) earlier research examining a group of "Baby Boomers" they labeled "highly active seekers." This group also regarded themselves as spiritual but not religious and held more "new age" beliefs, were more individualistic, and had parents who attended religious services less frequently. Important to the present study, these results demonstrate that there are important between-group differences in

those who self-identify as "spiritual but not religious" and those who identify as spiritual and religious.

Hodge and McGrew (2005) asked groups of Social Work students to define the terms spiritual and religious in a qualitative analysis. The results suggested that participants most commonly define spirituality as the broader concept that includes a belief in a higher power/God that may be of an organized fashion or may be more personally constructed. Religion, on the other hand, was defined as the practice of faith/spirituality through rituals or worship in the context of organized beliefs or doctrines. The authors reported that 60% of the participants viewed the terms as overlapping and the biggest distinction participants made between the terms was that they viewed religion as being more reflective of an organized or doctrine-based relationship with God/a higher power. These findings fit within the notion that spirituality and religion overlap considerably as constructs but that when participants make a distinction between the terms, they are often distinguishing between searching for the sacred either inside or outside of an organized religious framework. It follows that a person who identifies as religious is also likely to identify as spiritual, and a person who identifies as spiritual but not religious engages in their search for the sacred outside of an organized or doctrine-driven framework.

Hyman and Handal (2006) conducted an analysis to determine if common measures of religion and spirituality would be able to empirically distinguish between groups who identified as spiritual, religious, both or neither. The analysis was conducted to help reduce the ambiguity of the terms, explore if the groups were able to be distinguished from one another empirically and to measure the groups' negative psychological distress and positive well-being. In a sample of over 500 students and adults, the results suggested that none of the most common measures of spirituality and religiousness were able to distinguish between the 4 groups. Furthermore, all of

the measures were highly correlated regardless of whether they purported to measure spirituality or religiousness, suggesting that they were measuring the same or parts of the same construct. There were very few between-group differences found with regard to psychological distress; however, participants who identified as both spiritual and religious reported higher well-being than those who identified as just spiritual or just religious. Participants who identified as just spiritual or just religious did not differ from one another on measures of well-being but they were both higher than the group that identified as neither spiritual nor religious. Similar to previous findings, these results suggest that although the constructs "spiritual" and "religious" are unable to be distinguished empirically, significant differences do exist between people who self-identify as "spiritual but not religious" and those who identify as spiritual and religious.

Overall, little evidence has been gathered suggesting that spirituality and religiousness are separate constructs. However, those who identify as "spiritual but not religious" do appear to have some commonality as a group and merit further investigation.

For the purpose of this study, the constructs *spirituality* and *religiousness* will be conceptualized in a way that focuses on the large overlap between the terms, as they have been found to be more similar than different. The term *spirituality* will be used in the present study to represent the broader construct (that includes religiousness) as it is more inclusive of participants who identify as spiritual but not religious. Spirituality will be defined as "the subjective feelings, thoughts, and behaviors that arise from a search for the sacred. The term 'search' refers to attempts to identify, articulate, maintain or transform. The term 'sacred' refers to a divine being, divine object, Ultimate Reality, or Ultimate Truth as perceived by the individual" (Hill et al., 2000, p. 68). Religiousness will therefore be defined as the subjective feelings, thoughts, and behaviors that arise from a search for the sacred *within an organized or communal context*

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(Hodge & McGrew, 2005). This definition of spirituality was chosen as it captures both traditional beliefs/practices (prayer, church attendance, etc) as well as less traditional or personally constructed searches for the sacred that may exist outside of an organized context. This broad and inclusive definition is important to the present study as participants from a variety of spiritual orientations will be compared.

Relations of Spirituality to Health and Well-being

Physical health. There is a long history and large number of studies dedicated to looking at the connection between spirituality and physical health and particularly spirituality and mortality. Overall, spirituality has been consistently related to better physical health and reduction in mortality (e.g., Idler & Kasl, 1997; Koenig & Larson, 2001; Krause 1998; Park & Slattery, 2012; Powell, Shahabi, & Thoresen, 2003; Seeman, Dubin, & Seeman, 2003; Seybold & Hill 2001; Thoresen, 1999; Thoresen, Harris & Oman, 2001).

In a particularly rigorous review, Powell, Shahabi and Thoreson (2003) examined prior studies that test the health benefits of spirituality that meet sound methodological standards. They discovered that after controlling for SES, demographic, and health-related confounds, churchgoing predicted a 30% reduction in mortality with some studies suggesting a dose-response effect such that as participation in religion increased, life expectancy also increased. McCullough, Hoyt, Larson, Koenig and Thoreson (2000) also conducted a meta-analysis on 41 studies in the literature exploring spirituality and mortality concluding that conservative estimates appear to reflect 129% survival rates for participants who scored high on measures of religious involvement compared to low scorers on religious involvement, suggesting that those who are more involved in religious pursuits live substantially longer lives. In another review of the literature on religion and health, George, Larson, Koenig, & McCullough (2000) concluded

that spirituality generally has maintained a moderate association with reduced onset of illness, reduced mortality, and increased recovery or adjustment to illness. Koenig and Larson (2001) reported that 76 of the 86 studies examined in their systematic review revealed that spirituality was inversely related to alcohol use and 48 of 52 studies found that spirituality was inversely related to illicit drug use. Based on a review of the rich history of findings in this area, Park and Slattery (2012) propose a reciprocal model that suggests that perhaps the causal relationship between spirituality and physical health occurs in both directions and that directional studies are lacking in this body of literature. Furthermore, the authors advocate for the inclusion of emotions as a mediating variable between spirituality and physical health.

In a study of patients who underwent kidney transplant surgery, Tix and Frazier (1998) found that patients who were higher in religious coping showed better adjustment to their procedure over time. They also determined that patients' significant others who relied on religious coping reported less distress and higher life satisfaction. It is also important to note that in addition to these findings, the authors found that religious affiliation, that is, what group participants belonged to, was a significant moderator in the analysis, which will be discussed further below.

The most common measure of spirituality in these meta-analyses was a single item measure asking participants to report how often they attend church. Although the results are compelling, simply knowing rates of church attendance does little to explain the relationship between spirituality and health and therefore, the authors encouraged future studies to examine moderators and mediators that may influence the relationship between spirituality and health.

To summarize, several decades of studies have led researchers to conclude that there is a positive, yet complex, relationship between spirituality and physical health. Of even greater

interest to psychologists is the link between spirituality and mental health, and in fact, a large body of research exists examining this relationship.

Spirituality and mental health and well-being. The seminal works of G. Stanley Hall, William James, and E.D. Starbuck ushered religion into the world of formal psychological inquiry and started what was to become a long tradition of research. Gordon Allport brought religion back into the spotlight of psychological research after the topic lost momentum during the rise of behaviorism. Allport's early work in the 1950s shaped much of the landscape that was to become the study of religion in psychology (Allport, 1950; Kirkpatrick & Hood, 1990). Allport's research put forth the controversial but lasting idea of "intrinsic" vs. "extrinsic" spirituality. His theory suggested that one who "used" religion was thought to be extrinsically oriented and one who "lived" one's religion was thought to be intrinsically oriented and should reap more benefits psychologically. Contemporary authors have critiqued Allport's theory as a value-laden with culturally specific premises (Slater, Hall, & Edwards, 2001). However, much of the research that followed over the next several years was tested within the intrinsic/extrinsic (I/E) framework and although this theory has not been entirely discarded, current studies have trended away from the I/E distinction. Subsequently, over the last several decades a large body of evidence has accumulated suggesting that spirituality is related to and predictive of mental health and well-being (e.g., Batson, Schoenrade & Ventis, 1993; Hill & Pargament, 2008; Koenig & Larson, 2001; Larson, Swyers, & McCullough, 1998; Maton, 1989; Park & Slattery, 2013; Plante, & Sherman, 2001; Poloma & Pendleton, 1990; Tix, & Frasier, 1998).

In one of the most comprehensive reviews of the literature, Koenig and Larson (2001) reviewed decades of research examining the link between mental health and spirituality. They indicated that early research suggested a fairly ambiguous and sometimes negative association

between mental health and spirituality. The authors note that much of this early cross-sectional research failed to account for important covariates, and occasionally found an inverse relationship between mental health and religiousness. The authors emphasize that because people often turn to religion and spirituality when facing stressful life events and illness, simple correlations of this nature have to be interpreted with caution.

Although detailed statistics were not provided, the authors reported that of the 100 studies included in their analysis of positive well-being, 79 report positive associations between religious beliefs and practices and greater life satisfaction, happiness, positive affect, and higher morale. They reported that 10 of the 12 longitudinal studies found spirituality to be predictive of greater well-being and the magnitude of the association either equaled or exceeded the association between well-being and variables such as social support or income. Also, 15 of the 16 studies reviewed that examined purpose or meaning in life suggested a positive association and hope and optimism were found to be positively associated with spirituality in all of the relevant studies reviewed.

Koenig and Larson (2001) also identified and reviewed 123 studies that examined the relationship between spirituality and depression, 93 of which were observational studies, 22 of which were prospective cohort studies and eight of which were clinical trials. Of the 93 observational studies, 60 found lower rates of depression in those who were more religious. Five of the eight clinical trials found that participants who received religious interventions recovered from their depression more quickly than those that received non-religious interventions and those that received no intervention. Of the 22 prospective cohort studies, 15 suggested that increased spirituality predicted less depression.

Consistent with previous findings, the studies that measured anxiety and spirituality were less clear. Of the 69 observational studies reviewed, 35 found lower levels of anxiety and fear for more spititual individuals and four of the five prospective cohort studies found that increased spirituality at baseline predicted lower anxiety and fear. Finally, six of the seven clinical trials demonstrated reduced anxiety with religious interventions.

Due to the enormous number of studies that have investigated spirituality and mental health, Hackney and Sanders (2003) conducted their own meta-analysis combining the cumulative findings of prior meta-analyses that had been conducted. They claimed that although some analyses reported more ambiguous findings, the overall message drawn from prior literature was that there is a generally positive relationship between spirituality and mental health. In their analysis, Hackney and Sanders (2003) found that spirituality had a positive relationship with psychological adjustment ($r = .10$), which is consistent with prior meta-analytic findings. The authors suggested that more research was needed to clarify some of the ambiguity between the relationships. Their call for additional research to clarify and explain the relationship between spirituality, mental health, and well-being is a consistent request from many researchers in the field hoping to uncover new understandings of the relationship.

Koenig and Larson (2001) offer some possible explanations as to why they believe spirituality is associated with increased well-being, decreased depression, and decreased anxiety. They posit that in general, spirituality provides an optimistic worldview that increases people's sense of meaning that subsequently enhances hope and direction. Furthermore, they argue that spirituality generally encourages positive behaviors such as compassion, kindness and forgiveness. Finally, they suggest that spirituality often provides social support, which may buffer against emotional struggles and increase positive coping. Similarly, Steger and Frazier

(2005) state that "religion gives people a sense of meaning and coherence about ultimate truths" (p. 574). Koenig and Larson (2001) also note that spirituality may not always positively impact individuals, which may explain some mixed findings in the literature. Specifically, the authors suggest that for some, spirituality can induce guilt, shame, and fear and promote rigid thinking.

Mediators of the Religiousness/Spirituality and Mental Health/Well-being Relation

In an attempt to further explain the link between spirituality and health, researchers have turned to possible psychospiritual mediators that could offer enhanced explanations for that link. Mediating variables are those that are thought to explain the link between two related variables. In this case, several mediators have been consistently established as partially explaining the relationship between spirituality as the predictor and mental health and well-being as the outcome. Hill and Pargament (2003) suggests that the following mediators "are in some sense psychospiritual constructs: They have roots in religious and spiritual worldviews as well as in psychological theory. In addition, they have clear implications for religious and spiritual functioning as well as for health status" (p. 72).

Social support. Previous studies have tested the assumption that spirituality offers social contact and social support that positively benefits the health of participants who are highly religious (Cohen & Wills, 1985; Fiala, Bjorck, & Gorsuch, 2002; Holt, Schulz, Williams, Clark, & Wang, 2014; Krause, Ingersoll-Dayton, Ellison & Wulff, 1999; Taylor & Chatters, 1988). Social support has been studied as a mediator of spirituality and health because it was thought to increase health behaviors, social resources, or group connectedness. Holt et al. (2014) found that social support, and specifically, "belonging", mediated the relationship between religious involvement and both physical functioning and symptoms of depression in a national probability sample of African Americans. The support people receive from their religious community has

been shown to be positively related to psychological adjustment beyond the effects of general social support, suggesting that there may be additional benefits from religious support in particular (Holt et al., 2014; VandeCreek, Pargament, Belavich, Cowell, & Friedel, 1999). Koenig and Larson (2001) found that 19 of the 20 studies included in their systematic review demonstrated a positive relationship between social support and spirituality.

Perceived connection with God/spiritual support. In addition to establishing religious social support, researchers have suggested that perhaps a strong feeling of spiritual support or connection to God acts as an explanation for the link to mental health. Due to the nature of the construct, a direct measure of connectedness to God cannot be obtained so researchers have developed many measures of perceived closeness to God (Hill & Pargament, 2008). Researchers have found that spiritual support or a perceived connection to God is in fact positively related to many health outcome variables including better coping with life stressors such as dealing with natural disasters and transplant surgery (Smith, Pargament, Brant, & Oliver, 2000; Tix & Frazier, 1998).

Goals or strivings. Because religion is often believed to be an orienting and motivating force that can offer some guidance and direction for life as a "unifying framework," researchers have also tested the link between spiritual strivings and well-being (Pargament, 1997; Tix & Frazier, 2005). Emmons (2005) defined spiritual strivings as "goals that are oriented toward the sacred. They are those personal goals that are concerned with ultimate purpose, ethics, commitment to a higher power, and a seeking of the divine in daily experience." (p. 736) Typically asking participants to list several things they are currently striving towards, researchers have found support suggesting that the more spiritual strivings people report, the higher their reported well-being, life satisfaction, and purpose in life (Emmons, Cheung, & Tehrani, 1998;

Schnitker & Emmons, 2013). Strivings that are spiritual in nature are also rated as more meaningful and participants report that they devote more time and effort to spiritual strivings than to others with a more material focus (Emmons, 2005). In a college population, Leak, DeNeve, and Greteman (2007) found that spiritual self-transcendent strivings predicted satisfaction with life along with many other positive psychological characteristics such as self-actualization, healthy relationship attachments, and overall psychological health.

       Meaning in life. Because religion is thought to "give people a sense of meaning and coherence about ultimate truths" (p. 574) researchers have examined and confirmed that meaning in life also mediates the relationship between spirituality and mental health (Chamberlaine & Zika, 1992; Pargament 1997; Poloma & Pendelton 1990; Steger & Frazier, 2005). In a large sample of Jewish Israeli students, Vilchinsky and Kravetz (2005) tested the link between religious beliefs and outcomes of well-being and replicated the common positive association. Furthermore, through path analysis, the authors determined that meaning in life partially mediated the positive correlation between religious belief and psychological well-being as well as the negative correlation between religious belief and psychological distress. Vilchinsky and Kravetz (2005) tested a number of mediators along with meaning in life finding no other significant mediators. Their explanation for the lack of findings (such as social support) is that perhaps such relationships are more salient for Christian populations than their Jewish sample. This study highlights the importance of considering religious affiliation in future research. Steger and Frazier (2005) tested meaning in life as a mediator in two studies that assessed spirituality and well-being using measures of life satisfaction, optimism, and self-esteem. The authors found that meaning in life partially mediated the positive relationship between spirituality and all three measures of well-being and they concluded that the positive relationship

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between daily religious behaviors (measured by a daily diary) and well-being was also mediated by meaning in life.

Pargament (2002) cautioned that simply studying "mundane mediators" may uncover partial explanations about why spirituality positively impacts health, but may neglect to fully explain the bigger picture of the relationship. That is, testing mediators of this relationship is not intended to "explain away" religion as there may be transcendent elements of spirituality that are unable to be captured by testing mediators in a traditional sense. Additionally, much of the research that has been conducted thus far has considered spirituality and religiousness as global constructs without taking into account the specific context of the participant's spiritual or religious faith. This generalization assumes, for example, that a high degree of spirituality reported by a Catholic has the same impact as a high degree of spirituality reported by someone who identifies as spiritual but not religious. Therefore, more tradition-specific relationships must be considered.

Religious Affiliation as a Moderator

Taking moderator variables into account helps further explain the relationship between spirituality and well-being and provides a more accurate context for the variables (Alferi, Culver, Carver, Arena, & Antoni, 1999; Koenig & Larson, 2001; Park & Cohen, 1992; Tix & Frazier, 1998). Moderator variables influence the strength of the relationship between two other variables. For example, gender might be a moderator of the relationship between a given treatment (therapy) and a measured outcome (mental health), such that a particular therapy might be effective for women but ineffective, or even harmful, for men. In this case, religious denomination or spiritual affiliation are compelling moderators that may influence the relationship between spirituality and mental health. Moderators are important to introduce into a

line of an evolved body of research when a link has been established between two variables and thus far, findings examining moderators of spirituality and well-being have provided compelling evidence for their inclusion (Barron & Kenney, 1986; Frazier, Tix, & Barron, 2004). Pargament (2002) emphasized that although the empirical evidence is anything but well developed, it appears that each denomination and religious affiliation may come with its own benefits and costs and deserves more attention. Tix and Frazier (2005) argued that the link that has been established thus far between spirituality and well-being may be weaker than expected due to the fact that unique differences in religious tradition have not been taken into account. Specifically, the authors argued that perhaps religious denomination should be taken into account as a moderator while testing mediator models, thereby examining more homogeneous groups. This method appears to be a promising way to gain more clarity into the individual relationships between specific denominations of religious faith and health. This method may also allow some clarification in the literature where historical analyses and meta-analyses have found results to be mired in ambiguity.

Tix and Frazier (2005) examined the relationship between spirituality and mental health using three groups of religious faith (Catholic, Mainline Protestant, and Evangelical Protestant) as moderators and tested the participants' spiritual strivings as mediators. Consistent with previous research, they found that overall, intrinsic spirituality was related to less hostility and that this relationship was mediated by spiritual strivings. They also found that religious affiliation did, in fact, moderate the relationship between spirituality and both depression and anxiety. Specifically, intrinsic spirituality was inversely related to anxiety and depression for Conservative Protestants, not related for Mainline Protestants, and positively related for Catholics. These findings suggest that future research may benefit from including religious or

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spiritual affiliation as a moderator variable to more accurately explain the relationship between spirituality and well-being.

Purposes of Current Study

Over the past decade, the research has trended towards testing various mediators and moderators that help explain the positive mental health outcomes of spirituality. However, relatively few models have tested mediators while taking moderators into consideration. Several researchers have called for more detailed studies of spirituality and well-being with spiritual affiliation/religious tradition included. The present study will employ a mediated moderation methodology that will allow the established relevant psychospiritual mediators (social support, spiritual support, spiritual strivings, and meaning in life) to be tested within the specific context of religious or spiritual affiliation. The first step in this study tests the hypothesis that religious affiliation moderates the relationship between spirituality and subjective well-being. The second step examines the possible mediating role of social support, spiritual support, spiritual strivings, and meaning in life on the relation between spirituality and subjective well-being. The final step will test relevant mediators in the context of spiritual affiliation as a moderating variable. Measuring mediators within the context of spiritual affiliation/religious tradition is important because doing so provides further clarity on the relationship between spirituality and subjective well-being, hopefully addressing some the ambiguity that has historically confounded the literature. Furthermore, because people who identify as "spiritual but not religious" have demonstrated consistent group differences and relatively little is known about them, they will be explored as one level of the moderating variable in the present study.

Hypotheses

Hypothesis 1: Historically, spirituality has consistently correlated positively with measures of well-being as it is believed to be a unifying framework that provides support and increased meaning (Hackney & Sanders, 2003; Koenig & Larson, 2001). Based on this data, the present researcher expects to replicate this finding. Stated formally, hypothesis one predicts that spirituality, as measured by the SBI-15, is expected to have a positive relationship with subjective well-being such that participants scoring high on spirituality will score higher on subjective well-being than those scoring low on spirituality.

Hypothesis 2: Spiritual affiliation has been demonstrated to moderate the relationship between spirituality and well-being given that different spiritual traditions promote and emphasize different values and practices (Tix & Frazier, 2005). Given these findings, hypothesis two predicts that religious affiliation is expected to moderate the relationship between spirituality and subjective well-being, such that participants identifying as Protestant, Catholic, or spiritual but not religious will demonstrate a stronger relationship between spirituality and subjective well-being as compared to atheists.

Hypothesis 3: Prior findings have demonstrated that social support serves as a mediating variable between the spirituality and subjective well-being relation as it increases health behaviors, social resources, and group connectedness (Holt et al., 2014; VandeCreek, Pargament, Belavich, Cowell, & Friedel, 1999). Therefore, hypothesis three predicts that social support is expected to partially mediate the relation between spirituality and subjective well-being.

Hypothesis 4: Perceived spiritual support has been thought to provide support above and beyond social support and has demonstrated to mediate the relation between spirituality and well-being (Smith, Pargament, Brant, & Oliver, 2000; Tix & Frazier, 1998). Therefore, hypothesis four predicts that perceived spiritual support will partially mediate the relation between spirituality and subjective well-being.

Hypothesis 5: Because religion is often believed to be an orienting and motivating force that offers guidance and direction for life, spiritual goals and strivings have been studied and have indeed demonstrated a mediating effect between spirituality and subjective well-being (Pargament, 1997; Schnitker & Emmons, 2013; Tix & Frazier, 2005). Given these findings, hypothesis five predicts that spiritual strivings will partially mediate the relation between spirituality and subjective well-being.

Hypothesis 6: Since religion is thought to provide meaning and coherence in life, meaning in life has been examined as a mediating variable and indeed has been found to mediate the relationship between spirituality and subjective well-being (Steger & Frazier, 2005; Vilchinsky & Kravetz, 2005). Given the above findings, hypothesis six predicts that meaning in life will partially mediate the relation between spirituality and subjective well-being.

Hypothesis 7: Hypotheses 3 through 6 are expected to be supported for participants identifying as Protestant, Catholic, and spiritual but not religious, but not for atheists.

Method

Participants

Participants included 307 (217 men, 90 women) students (*M* age = 18.8, *SD* age = 1.72) from an undergraduate PSY100 research pool who were provided with credit for participating. Because little is known about people who identify as spiritual but not religious, college students represent an important population to investigate due to the generational effects that suggest that increasing numbers of young people describe themselves as spiritual but not religious (Hyman & Handal, 2006; Roof & Greer 1993; Zinnbauer et al., 1997). Religious affiliation included 28.2% Spiritual but not Religious (SNR), 25.3% Protestant, 25.3 % Catholic, 8.8% Atheist, 1.8% Buddhist, 1.8% Jewish, .9% LDS, .9% Orthodox, .3% Hindu, .3% Muslim and 6.5% Other. Ethnic representation included 87.0% White non-Hispanic (*n* = 267), 7.5% Latino/Hispanic (*n* = 23), 1.6% African American (*n* = 5), 1.0% Asian American (*n* = 3), 0.7% Native American (*n* = 2) and 2.3% other ethnic background (*n* = 7). Student SES measured by self-estimated average annual family income included 20.4% under $30,000 (*n* = 22), 20.1% between $30,000 to $60,000 (*n* = 59), 20.1% between $60,000 to $90,000 (*n* = 58), 21.2% between $90,000 to $120,000 (*n* = 61) and 31.3% over $120,000 (*n* = 86). Student year in school included, 73.0% Freshman (*n* = 224), 18.6% Sophomore (*n* = 57), 4.9% Junior (*n* = 15), 2.9% Senior (*n* = 9), and 0.7% other (*n* = 2).

Procedures

Participants were directed to a website to complete an online survey consisting of the below listed instruments. They were provided a set of instructions explaining how to complete the forms, a consent form, and debriefing information. Participants completed the questionnaires

online. Participation in this study was in partial fulfillment of a requirement to participate in a research project in their undergraduate psychology course and participants volunteered to participate in "a research project examining health and spirituality/religiousness." Participants completed questionnaires in the order listed below and submitted their responses electronically.

Instruments

Spirituality. The most frequently used measure of spirituality historically has been single item measures of attendance (Hall, Meador, & Koenig, 2008). However, the results from this measurement strategy assume that people only practice their search for the sacred in an organized religious framework and would not be inclusive of many of the populations of interest in the present study namely atheists and spiritual but not religious participants.

The Systems of Belief Inventory (SBI-15R; Holland et al., 1998) is a 15-item inventory designed to measure spirituality and religiousness in health research. Items on the SBI-15R are scored on a 4-point continuous scale (0 = Strongly Disagree to 3 = Strongly Agree) and include items assessing the individual's spirituality and religiousness such as "I feel certain that God in some form exists" and "I have experienced piece of mind through my prayers and meditation." The SBI-15R was designed as an empirical and theoretical hybrid of religious measurement and has demonstrated strong psychometric properties with several diverse groups. Originally the SBI-54 was created to measure spirituality in quality of life and psychosocial health research. The SBI-54 was shortened to the SBI-15 after two main factors were identified in a principal component analysis representing spiritual beliefs, practices and support. The SBI-15 was revised to include both healthy individuals and those who are coping with a serious illness. SBI-15R scores demonstrated convergent validity with scores on the intrinsic scale of the *Religious Orientation Inventory* ($r = 0.84$) as well as the *INSPIRIT* ($r = 0.82$) suggesting that the SBI-15R

"will allow for the measurement of both religious behaviors and spiritual experiences" (p. 466).

Scores on the SBI-15R were successfully able to discriminate between individuals who identified

as religious or atheist/agnostic and has demonstrated discriminant validity lacking a correlation

with the Brief Symptom Inventory (r = -0.004) and the Medical Outcome Study (r = -0.031)

which measure psychological distress and health. SBI-15R scores also demonstrated high

internal consistency (α = 0.97, α = .97 in the present sample) and test-retest reliability (r = 0.95).

The SBI-15 has also been validated with different religious traditions including Protestant and

atheist American (Holland et al., 1998) and Jewish Israeli populations (Baider, Holland, Russak,

& Kaplan De-Nour, 2001).

Hall, Meador, and Koenig (2008) in general caution against using "context free"

measures of "religiosity in general" because people from a variety of different religious/spiritual

backgrounds can score similarly on the measures when in reality their results may be

meaningfully different. However, given the design of the present study where religious tradition

will be separated as a moderator, a general measure of spirituality is appropriate and necessary to

allow for the inclusion of participants from an atheist or spiritual but not religious background.

In fact, Hall, Meador, and Koenig (2008) applaud the SBI-15R as a particularly useful

instrument that measures spirituality when homogeneous groups are separated because it allows

participants to "load their own particular context onto the scale" (p. 156) and therefore provides

more context-specific and meaningful results when religious affiliation is accounted for and

group members "share theologically similar perspectives" (p. 157).

Social support. Social support will be measured using the Interpersonal Support

Evaluation List (ISEL; Cohen & Wills, 1985). The ISEL is a 40-item measure that is comprised

of items that ask participants to rate their perceptions of available social resources. The items are

counterbalanced; half of the items measure positive social support (e.g., "There are several different people with whom I enjoy spending time") and the other half of the items are negative statements (e.g., "I feel that there is no one with whom I can share my most private worries and fears"). Participants respond whether the item is "probably true" or "probably false" about themselves. The ISEL was originally designed to be used in predicting health outcomes and has demonstrated good psychometric properties and has been validated with a wide variety of populations. Scores on the ISEL correlate with scores on the Inventory of Socially Supported Behaviors ($r = 0.46$) and the Rosenberg Self-esteem Scale ($r = 0.74$). ISEL scores have historically demonstrated good internal consistency reliability ($\alpha s = 0.88$ to 0.90, $\alpha = .56$ in the present sample) as well as four-week test-retest reliability ($.88$) although the reliability was below acceptable standards in the present study. ISEL scores do not correlate with social desirability and have been negatively correlated with and predictive of scores on measures of depression and anxiety and positively correlated with scores on measures of well-being (Cohen & Wills, 1985).

 Spiritual support. Perceived connection with God or spiritual support will be measured using the Spiritual Support Scale (SSS; Maton, 1989). The SSS is a three-item measure that assesses participants' perception of their relationship with God. The items include "I experience God's loving and caring on a regular basis," "I experience a close personal relationship with God," and "My religious faith helps me to cope during times of difficulty." Scores on the SSS have demonstrated high internal consistency ($\alpha = 0.92$, $\alpha = .95$ in the present sample) and test-retest reliability of 0.81. SSS scores also correlate negatively with scores on measures of depression and self-esteem and add incrementally beyond measures of general social support (Maton, 1989).

Spiritual strivings. Spiritual strivings were measured using a frequently used method adapted from Emmons, Cheung, and Tehrani's (1998) recommendations. Participants listed ten strivings that they are "typically trying to do." Participants' responses were then coded and scored and strivings that reflect spiritual goals were summed to obtain a measure of spiritual strivings. This method allows for participants to report their strivings ideographically while they can be studied nomothetically (Emmons, 1996). Spiritual strivings have been demonstrated to be related to measures of well-being such as greater purpose in life and life satisfaction (Gorsuch & McPherson, 1989). Spiritual strivings also tend to be rated as more important than other non-spiritual strivings and accounted for variance above religious attendance and prayer frequency (Emmons, 1996).

Meaning in Life. The Meaning in Life Questionnaire (MLQ; Steger, Frazier, Oishi, & Kaler, 2006) is a 10-item measure composed of two 5-item subscales designed to assess participants' presence of, and search for, meaning in life (e.g., "I have discovered a satisfying life purpose"). Participants rate each statement on a continuous scale from 1 ("absolutely untrue") to 7 ("absolutely true"). Confirmatory factor analysis demonstrated good fit indices in several samples. The internal consistency of the Presence scale scores have demonstrated alpha values from .82 to .86, (α = .76 in the present sample) with one-month test-retest values of .70. Scores on the Presence scale have demonstrated convergent validity relating to other measures of meaning in life and have been demonstrated to be sufficiently distinct from measures of optimism, self-esteem, and life-satisfaction.

Subjective well-being. The Satisfaction With Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985) is a widely used measure designed to assess participants' life satisfaction. The SWLS is a five-item measure that asks participants to rate statements (e.g., "In

most ways my life is close to the ideal") from 1 ("absolutely untrue") to 7 ("absolutely true).

Scores on the SWLS have demonstrated high internal consistency ($\alpha = 0.87$, $\alpha = .85$ in the present sample) with a two-month test-retest of .82. SWLS scores do not correlate to measures of social desirability and correlate negatively with measures of psychopathology (Diener, Emmons, Larson, & Griffin, 1985). SWLS scores have been consistently related to, yet are distinct from, scores on other measures of subjective well-being such as optimism and self-esteem as demonstrated by a multitrait-multimethod matrix (Lucas, Deiner, & Suh, 1996).

Analyses

Analyses were modeled after Frazier, Tix, and Barron's (2004) recommendations for a "mediated moderation" model. Participants' self-identified religious or spiritual affiliation were tested as a moderating variable using multiple regression. Social support, goals and strivings, spiritual support, and meaning in life were all explored as potential mediators of the relationship between spirituality and subjective well-being using multiple regression analyses following Baron and Kenny's (1986) recommendations. Identified mediators were then tested in the context of religious affiliation within a mediated moderation model.

Results

Preliminary Analyses

Initial analyses included exploring age ($M = 18.8$, $SD = 1.72$), gender (217 men, 90 women), SES ($M = 113,372.73$, $SD = 107,470$), and ethnicity (87.0% White non-Hispanic, 7.5% Latino/Hispanic, 1.6% African American, 1.0% Asian American, 0.7% Native American and 2.3% other ethnic background) as potential covariates. None of the above variables significantly correlated with the Satisfaction With Life Scale so no covariates were included in the main analyses (See Tables 1-4).

Table 1
Descriptives for all Participants on all Measures

Variable	Min	Max	*M*	*SD*
Spirituality (SBI-15)	15	60	39.10	13.10
Social Support (ISEL)	46	117	81.93	8.47
Spiritual Support (SSS)	3	15	9.10	4.10
Spiritual Goals Strivings	0	5	0.41	0.79
Meaning in Life (MLQ)	10	70	49.58	9.04
Subjective Well-Being (SWLS)	9	35	26.19	5.61

Table 2
Intercorrelations for All Measures

	SBI	ISEL	SSS	STR	MLQ	SWLS
SBI	1					
ISEL	-.077	1				
SSS	.925**	-.093	1			
STR	.342**	.021	.311**	1		
MLQ	.402**	-.196**	.325**	.120*	1	
SWLS	.200**	-.274**	.222**	.060	.281**	1

** $p<.01$ (2-tailed), * $p<.05$ (2-tailed)
SBI=Spiritual Belief Inventory, ISEL= Interpersonal Support Evaluation List, SSS=Spiritual Support Scale, STR=Goals/Strivings, MLQ= Meaning in Life Questionnaire, SWLS= Subjective Well-Being Scale

Table 3
Means and Standard Deviations for Predictor and Outcome Measures by Group

	All		Protestant		Catholic		Atheist		SNR	
Variable	M	SD	M	SD	M	SD	M	SD	M	SD
Spirituality (SBI-15)	39.10	13.10	48.70	8.39	43.11	9.39	17.80	2.51	32.78	10.65
Subjective Well-Being (SWLS)	26.19	5.61	27.13	4.73	26.56	5.71	24.23	6.71	25.54	5.81

Table 4

Mean Comparisons by Group of Predictor and Outcome Variables

Instrument	Comparisons	M Difference	SE	T	df	P
SBI	Protestant-SNR	-15.91	0.13	-12.02*	303	< .001
	Protestant-Atheist	-30.90	1.91	-16.17*	303	< .001
	Protestant-Catholic	-5.59	1.35	-4.13*	303	< .001
	SNR-Atheist	-14.98	1.90	-7.87*	303	< .001
	SNR-Catholic	10.32	1.34	7.68*	303	< .001
	Atheist-Catholic	25.31	1.92	13.15*	303	< .001
SWLS	Protestant-SNR	-1.59	0.81	-1.96	303	0.051
	Protestant-Atheist	-2.90	1.17	-2.48	303	0.014
	Protestant-Catholic	-0.57	0.83	-0.69	303	0.49
	SNR-Atheist	-1.31	1.17	-1.12	303	0.26
	SNR-Catholic	1.02	0.82	1.24	303	0.22
	Atheist-Catholic	2.32	1.18	1.97	303	0.05

*p<.008 (6 comparisons for each variable, so the significance level is .05/6 = .008)

Assumptions and Transformations

Five participants did not complete several of the measures and were dropped from subsequent analyses. A square root transformation was calculated for the Spiritual Support Scale to address significant skewness of 2.641 (*SE* = .132) and kurtosis of 9.011 (*SE* = .263). After conducting square root transformation, values were within acceptable levels (skewness = 1.375 (*SE* = .132), kurtosis = .555 (*SE* = .263)). A square root transformation was also calculated for the Interpersonal Support Evaluation List to address significant skewness of .403 (*SE* = .132) and

kurtosis of 3.207 (*SE* = .263). After conducting transformation, skewness of .042 (*SE* = .132) and kurtosis of 2.361(*SE* = .263) were within acceptable limits.

Multiple linear regression (MLR) assumes that the relationship between independent and dependent variables are linear. Plotted Y and X's in the present study demonstrated a linear relationship. MLR also assumes that residuals are normally distributed. Less than 5% of residuals were non-normal and approximated a normal distribution when plotted on a histogram and approximated a straight line on a probability plot suggesting that the assumption is met. All assumptions of MLR were met.

Groupings

Four conceptually distinct categories of spiritual affiliation were grouped based on participants' self-reported affiliation. Participants were given both a forced choice and a free response option to identify their affiliation. This method of self-identification was designed to capture the participants' affiliation in such a way that the groups could be separated into as homogeneous groupings as possible. Participants were divided into Catholic, Protestant, Atheist, and Spiritual but not religious (SNR). Such a large proportion of Protestant participants marked the "other" category in the forced choice option and provided ambiguous/generic descriptions of their affiliation (i.e. simply "Christian", "follower of Jesus Christ", "non-denominational" or "just Christian," etc.) that both mainline and evangelical Protestants were collapsed into the Protestant category. These categories reflect an attempt to produce the most conceptually homogeneous groups possible.

Moderation Analyses

Analyses were run to determine if an interaction effect existed between religious affiliation and spirituality on subjective well-being.

First, dummy codes were created to represent spirituality. Dummy coded variables were created for Catholics, Protestants, SNR, and atheists. Participants who identified as Catholic were given a 1 on the Catholic dummy code, and a 0 on all other dummy codes; Protestants were given a 1 on the Protestant dummy code, and a 0 on all other dummy codes; and so on, for SNR and atheists. Next, an interaction term was created for each group by multiplying that group's dummy code by the centered spirituality scores on the SBI-15.

Subjective well-being was then regressed on spirituality and the dummy coded variables for religious affiliation to test the simple main effect of spirituality and religious affiliation on subjective well-being. The reference group was changed depending on which simple main effect was being tested for significance.

The results of the model showed a significant main effect for spirituality on subjective well-being, controlling for religious affiliation ($b = .075$, $SE = .035$, $t[302] = 2.159$, $p = .032$). This finding demonstrates that as spirituality scores increase, subjective well-being scores increase while holding religious affiliation constant.

Simple main effects. With Protestants as the reference group, neither SNR ($b = -.387$, $SE = .979$, $t(302) = -.395$, $p = .693$), atheists ($b = -.565$, $SE = 1.586$, $t(302) = -456$, $p = .722$), nor Catholics ($b = -.150$, $SE = .846$, $t(302) = -.178$, $p = .859$) were predicted to have subjective well-being scores significantly different from Protestants. Similarly, neither Protestants ($b = .387$, $SE = .979$, $t[299] = .395$, $p = .693$), atheists ($b = -.178$, $SE = 1.271$, $t[299] = -.009$, $p = .889$), nor Catholics ($b = .236$, $SE = .893$, $t[299] = .019$, $p = .791$) were predicted to have subjective well-

being scores significantly different from SNR. Neither SNR ($b = .178$, $SE =1.271$, $t[299] = .015$, $p = .889$), Protestants ($b = .565$, $SE = 1.586$, $t[299] = .356$, $p = .722$), nor Catholics ($b = .414$, $SE = 1.467$, $t[299] = -=.282$, $p = .778$), were predicted to have subjective well-being scores significantly different from atheists. Finally, neither SNR ($b = -.236$, $SE = .893$, $t[299] = -.265$, $p = .791$), Protestants ($b = .150$, $SE = .846$, $t[299] = .178$, $p = .859$), nor atheists ($b = -.414$, $SE = 1.467$, $t[299] = -.282$, $p = .778$), were predicted to have subjective well-being scores significantly different from Catholics. Simple main effects analyses suggest that subjective well-being scores were relatively consistent irrespective of religious affiliation.

Interaction effects. Next, subjective well-being was then regressed on spirituality, the dummy coded variables for religious affiliation, and the interaction terms for religious affiliation and spirituality. The reference group was changed depending on which slope was being tested for significance.

With Protestants as the reference group, the slope for spirituality represents the relationship between spirituality on subjective well-being for Protestants. For Protestants, the relationship between spirituality and subjective well-being was significant ($b = .201$, $SE = .067$, $t[299] = 3.005$, $p = .003$) demonstrating that higher scores in spirituality for Protestants predict higher scores in subjective well-being. After controlling for the interaction between spirituality and religious affiliation, neither SNR ($b = -.270$, $SE = 1.066$, $t[299]= -.022$, $p = .800$), atheists ($b = 5.957$, $SE = 8.591$, $t[299]= .316$, $p = .489$), nor Catholics ($b = .534$, $SE = 1.057$, $t[299] = .506$, $p = .613$) were predicted to have subjective well-being scores significantly different from Protestants. The interaction term for spirituality and SNR was significant ($b = -.299$, $SE = .085$, $t[299] = -.352$, $p = <.001$), meaning that the slope for the relationship between spirituality and subjective well-being for SNR was significantly different from Protestants. Neither the

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interaction term for atheists (b = .124, SE = .404, t[299] = .306, p = .760) nor Catholics (b = .005, SE = .091, t[299] =. 051, p = .959) was significant, meaning that the relationship between spirituality and subjective well-being for those groups did not significantly differ from the relationship between spirituality and subjective well-being for Protestants (see table 4).

With SNR as the reference group, the relationship between spirituality and subjective well-being was not significant (b = -.097, SE = .052, t[299] = -.227, p = .062). After controlling for the interaction, neither Protestants (b = -.270, SE = 1.066, t[299] = .254, p = .800), atheists (b = 6.227, SE = 8.573, t[299] = .726, p = .468), nor Catholics (b = .805, SE = .895, t[299] = .899, p = .369) were predicted to have subjective well-being scores significantly different than SNR. The interaction term for Protestants (b = .299, SE = .085, t[299] = 3.522, p = <.001), and Catholics (b = .303, SE = .081, t[299] = 3.764, p = <.001) was significant, meaning that the slope for the relationship between spirituality and subjective well-being for Protestants and Catholics was significantly different from SNR. The interaction term for atheists (b = .422, SE = .402, t[299] = 1.050, p = .295) was not significant, meaning that the relationship between spirituality and subjective well-being for atheists did not significantly differ from the relationship between spirituality and well-being for SNR. This analysis demonstrates that the for SNR, no significant relationship exists between spirituality and subjective well-being and is the only religious affiliation for which the relationship is negative.

With atheists as the reference group, the relationship between spirituality and subjective well-being was not significant (b = .325, SE = .399, t[299] = .815, p = .416). After controlling for the interaction, neither SNR (b = -6.227, SE = 8.573, t[299] = -.726, p = .468), Protestants (b = -5.957, SE = 8.591, t[299] = -.693, p = .489), nor Catholics (b = -5.422, SE = 8.572, t[299] = -.633, p = .527) were predicted to have well-being scores significantly different from atheists.

Neither the interaction term for SNR (b = -.422, SE = .403, t[299] = -1.05, p = .295), Protestants (b = -.124, SE = .404, t[299] = -.306, p = .760), nor Catholics (b = -.119, SE = .403, t[299] = -.295, p = .768) was significant, meaning that the relationship between spirituality and subjective well-being for those groups did not differ significantly from the relationship between spirituality and subjective well-being for atheists. This analysis demonstrates that for atheists, no significant relationship exists between spirituality and subjective well-being.

With Catholics as the reference group, the relationship between spirituality and subjective well-being was significant (b = .206, SE = .062, t[299] = 3.344, p = .001). After controlling for the interaction, neither SNR (b = -.805, SE = .895, t[299] = -.899, p = .369), Protestants (b = -.534, SE = 1.057, t[299] = -.506, p = .613), nor atheists (b = 5.422, SE = 8.572, t[299] = .633, p = .527) differed significantly from Catholics. The interaction term for spirituality and SNR was significant (b = -.303, SE = .402, t[299] = -1.050, p = <.001), suggesting that the slope for the relationship between spirituality and subjective well-being for SNR was significantly different from Catholics. Neither the interaction term for Protestants (b = -.005, SE = .404, t[299] = -.306, p = .959), nor atheists (b = .119, SE = .403, t[299] = .295, p = .768) was significant, meaning that the relationship between spirituality and subjective well-being for those groups did not significantly differ from the relationship between spirituality and subjective well-being for Catholics. This analysis demonstrates that for Catholics, a positive relationship exists between spirituality and subjective well-being.

Overall, both Catholics and Protestants demonstrated a positive significant relationship between spirituality and subjective well-being while those who identified as atheist and SNR demonstrated no statistically significant relationship (see Figure 1). This means that although subjective well-being scores were relatively consistent across groups, Catholics and Protestants

subjective well-being was positively related to their spirituality whereas atheists' and SNR's subjective well-being was not related to their spirituality scores.

Hierarchical Regression. Finally, a hierarchical regression was run to examine the variance explained by accounting for religious tradition as a moderator. In the first model, all of the interaction terms were excluded. This model explained 4.1% of the variance in subjective well-being, which was significant ($R= .202$, $R^2= .041$, $F(4,302)= 3.197$, $p = .014$). Next, a model including all of the interaction terms was run. This model predicted 9.9% of the variance in subjective well-being, 5.9% more than the previous model, and this difference was significant ($R= .315$, $R^2= .099$, $\Delta R^2= .059$, $\Delta F(3,299) = 6.489$, $p < .001$). This demonstrates that including religious affiliation as a moderating variable in the relationship between spirituality and subjective well-being accounts for a significant increase in variance (see table 5 and figure 1).

Table 5

Moderating Relationship of Spiritual Affiliation/Religious Tradition on the Relationship Between Spirituality and Subjective Well Being (n=302)

Reference Group	Model		B	SE B	*B*	F	R²	Adj. R²	ΔR²
Protestant	1	Spir. Cen	0.08*	0.04	.18*				
		SNR	-0.39	0.98	-.03				
		Atheist	-0.57	1.59	-.03				
		Catholic	-0.15	0.85	-.01				
						3.20	.04	.03	.04
	2	Spirituality	0.20**	0.07	.47**				
		SNR	-0.27	1.07	-.02				
		Atheist	5.96	8.60	.32				
		Catholic	0.53	1.06	.04				
		Spir. X SNR	-0.30***	0.09	-.35***				
		Spir.XAtheist	0.12	0.40	.14				
		Spir.XCatholic	0.01	0.09	.004				
						4.71	.10	.08	.06
SNR	1	Spir. Cen	0.08*	0.04	.18*				
		Protestant	0.39	0.98	.03				
		Atheist	-0.18	1.27	-.01				
		Catholic	0.24	0.89	.02				
						3.20	.04	.03	.04
	2	Spir. Cen.	-0.10	0.05	-.23				
		Protestant	-0.27	1.07	.02				
		Atheist	6.23	8.57	.33				
		Catholic	0.81	0.90	.07				
		Spir. X Prot	0.30***	0.09	.34***				
		Spir.XAtheist	0.42	0.40	.48				
		Spir.XCatholic	0.30***	0.08	.29***				
						4.71	.10	.08	.06
Atheist	1	Spir. Cen	0.08	0.04	.18*				
		SNR	0.18	1.27	.02				
		Protestant	0.57	1.59	.05				
		Catholic	0.41	1.47	.03				
						3.20	.04	.03	.04
	2	Spir. Cen.	0.33	0.40	.76				
		SNR	-6.23	8.57	-.52				
		Protestant	-5.96	8.59	-.49				
		Catholic	-5.42	8.57	-.44				
		Spir. X SNR	-0.42	0.40	-.50				
		Spir.XProtestant	-0.12	0.40	-.14				
		Spir.XCatholic	-0.12	0.40	-.11				
						4.71	.10	.08	.06
Catholic	1	Spir. Cen	0.08*	0.04	.18*				
		SNR	-0.24	0.89	-.02				
		Protestant	0.15	0.85	.01				
		Atheist	-0.41	1.47	-.02				
						3.20	.04	.03	.04
	2	Spir. Cen.	0.21	0.06	.76				
		SNR	-0.81	0.90	-.07				
		Protestant	-0.53	1.06	-.04				
		Atheist	5.42	8.57	.29				
		Spir. X SNR	-0.30	0.40	-.50				
		Spir.XProtestant	-0.01	0.40	-.14				
		Spir.XAtheist	0.12	0.40	-.11				
						4.71	.10	.08	.06

*p<.05, **p<.01, ***p<.001

Spir. Cen= Spirituality Centered, Prot=Protestant, SNR=Spiritual but not Religious, Spir.=Spirituality
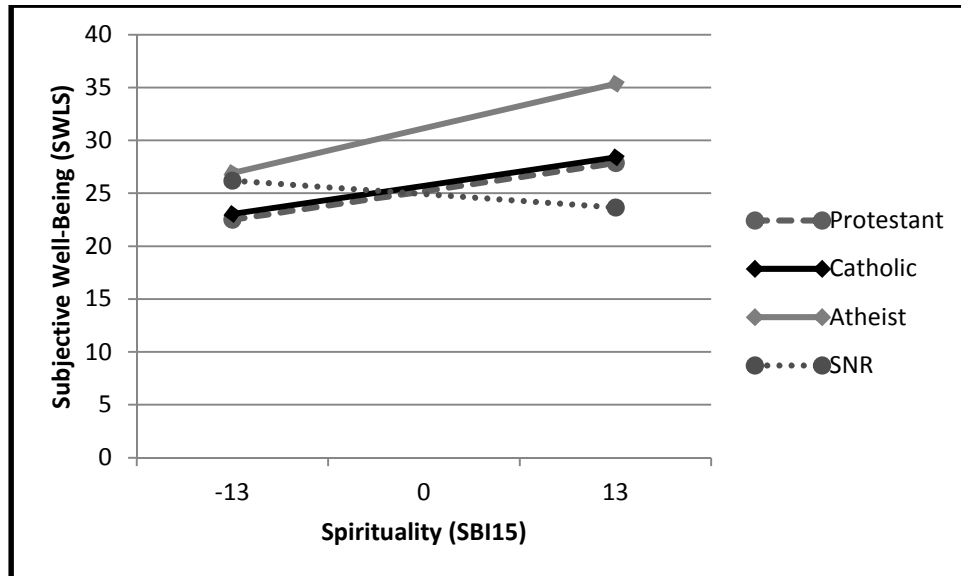
Figure 1

The Moderating Impact of Spiritual Affiliation/Religious Tradition on the Relationship Between Spirituality and Subjective Well-Being

Mediation Analyses

Mediation was assessed using Barron and Kenny's (1986) method. Following step 1 of Barron and Kenny's (1986) method, first a significant relationship between the predictor (X; spirituality) and the outcome (Y; subjective well-being) was tested. If a significant relationship was found, Step 2 of Barron and Kenny's method was used to test for a significant relationship between X (spirituality) and the mediator variable (M). If a significant relationship existed, then Step 3 was tested, and Y was regressed on both X and M. If the slope for both X and M were significant, this was considered evidence of partial mediation. If the slope for X was non-significant, and the slope for M was significant, this was considered evidence of full mediation. If the slope for M was non-significant, this was considered to be no evidence of mediation.

If full or partial mediation existed, an estimate of the indirect effect by multiplying path A (the slope for X when M is regressed on X) by path B (the slope for M when Y is regressed on both X and M) was tested. Finally, a Sobel test was used to test if the indirect effect of X on Y

through M was significantly different from 0. If the Sobel test was significant, this was considered evidence of mediation; if the Sobel test was non-significant, the results were interpreted as not providing evidence of mediation.

Social support was examined to see if it mediated the relationship between spirituality and subjective well-being. First, subjective well-being (Y) was regressed on spirituality (X). The relationship between spirituality and subjective well-being was significant (b = .086, SE = .024, t(304)= 3.567, p <.001) so the analysis continued to step 2.

Next, social support (M) was regressed on spirituality (X). The relationship between spirituality and social support was not significant (b = -.003, SE = .002, t(304)= -1.330, p = .184) so analysis of social support as a mediator did not continue to step 3.

Spiritual support was then examined to determine if it mediated the relationship between spirituality and subjective well-being. First, subjective well-being (Y) was regressed on spirituality (X). The relationship between spirituality and subjective well-being was significant (b = .086, SE = .024, t(304)= 3.567, p <.001) so the analysis continued to step 2.

Next, spiritual support (M) was regressed on spirituality (X). The relationship between spirituality and spiritual support was significant (b = .289 SE =.007, t(304)= 42.451, p = <.001) so the analysis continued to step 3.

Next, subjective well-being was regressed on both spirituality and spiritual support. With both spirituality and spiritual support in the model, neither spirituality (X) (b = -.015 SE = .063, t(303)= -.237, p = .812) nor spiritual support (M) (b = .348, SE = .201, t(303)= 1.729, p = .085) were significant. Thus, the analysis of spiritual support discontinued and did not reveal evidence of mediation.

Spiritual strivings were then explored as a possible mediator. First, subjective well-being (Y) was regressed on spirituality (X). The relationship between spirituality and subjective well-being was significant ($b = .086$, $SE = .024$, t(304)= 3.567, $p <$.001). Because the relationship was significant, the analysis continued to step 2.

Next, spiritual strivings (M) was regressed on spirituality (X). The relationship between spirituality and spiritual strivings was significant ($b = .086$ $SE = .002$, t(304)= 6.625, $p < .001$) so the analysis continued to step 3.

Next, subjective well-being was regressed on both spirituality and spiritual strivings. With both spirituality and spiritual strivings in the model, spirituality (X) ($b = .087$ $SE = .026$, t(303)= 3.366, $p = .001$) remains significant, however, spiritual strivings (M) ($b = -.063$, $SE = .613$, t(303)= -.103, $p = .918$) becomes non-significant. Thus, the analysis of spiritual strivings discontinued as no evidence of mediation was found.

Finally, meaning in life was examined to see if it mediated the relationship between spirituality and subjective well-being. First, subjective well-being (Y) was regressed on spirituality (X). The relationship between spirituality and subjective well-being was significant ($b = .086$, $SE = .024$, t(304)= 3.567, $p <$.001). Because the relationship was significant, the analysis continued to step 2 of Barron and Kenny's (1986) method.

Next, meaning in life (M) was regressed on spirituality (X). The relationship between spirituality and meaning in life was significant ($b = .277$, $SE = .036$, t(304)= 7.661, $p < .001$). Because the relationship was significant, the analysis continued to step 3 of Barron and Kenny's (1986) method.

Subjective well-being was then regressed on both spirituality and meaning in life. With both spirituality and meaning in life in the model, spirituality was non-significant ($b = .045$ $SE =$

.026, t(303)= 1.738, *p* = .083) whereas meaning in life was significant (*b* = .149, *SE* = .037,

t(303)= 4.003, *p* < .001). Thus, there was evidence that meaning in life fully mediated the

relationship between spirituality and subjective well-being.

Finally, the indirect effect of spirituality on subjective well-being through meaning in life

was estimated by multiplying path A by path B. For this model, the indirect effect was estimated

to be .041 (i.e., .277*.149). According to the Sobel test, the indirect path was significantly

different from 0 (Sobel= 3.568, *SE* = .012, *p* < .001). Thus, there was evidence that meaning in

life fully mediated the relationship between spirituality and subjective well-being (see Table 6

and Figure 2).

Table 6
Mediating Impact of Social Support, Meaning in Life, Spiritual Support, and Strivings on the Relationship Between Spirituality and Subjective Well-Being (n=303).

Measure	Step	B	SE B	F	R	R^2	Sobel
ISEL	1 SWB-Spir	0.09***	0.02				
	2 ISEL-Spir	-0.00	0.00				
	3 SWB-Spir	0.08***	0.02				
	SWB-ISEL	-3.03***	0.66	17.27***	0.32	.10	
MLQ	1 SWB-Spir	.09***	.02				
	2 MLQ-Spir	.28***	.04				
	3 SWB-Spir	0.05	0.03				
	SWB-MLQ	0.15***	0.04	14.69***	0.30	.09	3.57
SSS	1 SWB-Spir	0.09***	0.02				
	2 SSS-Spir	0.29***	0.01				
	3 SWB-Spir	-0.02	0.06				
	SWB-SSS	0.35	0.20	7.90***	0.22	0.05	
Strivings	1 SWB-Spir	0.09***	0.02				
	2 STR-Spir	0.02***	0.00				
	3 SWB-Spir	0.09***	0.03				
	SWB-STR	-0.06	0.61	6.35**	0.20	0.04	

*p<.05, **p<.01, ***p<.001
ISEL=Interpersonal Support Evaluation List, SWB=Subjective Well-Being, Spir=Spirituality, MLQ=Meaning in Life Questionnaire, SSS=Spiritual Support, STR=Strivings
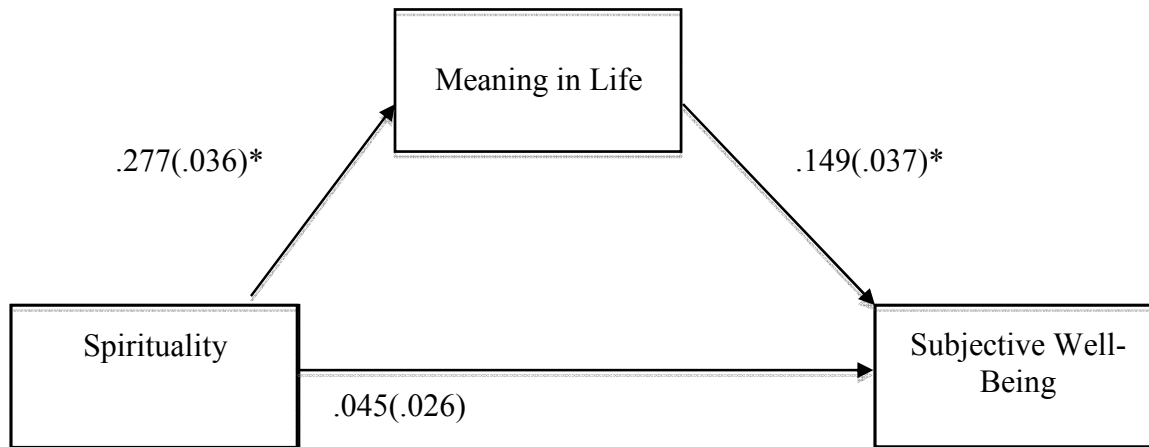

Figure 2
The Mediating Effect of Meaning in Life on the Relationship Between Spirituality and Subjective Well-Being

Mediated Moderation

Mediated moderation was assessed using the method described by Barron and Kenny (1986). This method assesses mediation using three steps:

1) Regress Y (the outcome) on X (the predictor). If this relationship is significant, continue to step 2. If it is non-significant, there is no evidence for mediation.

2) Regress M (the mediator) on X. If this relationship is significant, continue to step 3. If it is non-significant, there is no evidence for mediation.

3) Regress Y on X and M. If M is significant, and X is non-significant, this is evidence of full mediation. If both X and M are significant, this is evidence of partial mediation. If M is non-significant, there is no evidence of mediation.

To assess mediated moderation, the three steps above are followed, but the X variable is substituted with the interaction term (Z).

Results of the moderation analysis showed that only two interaction terms were significant: the relationship between spirituality and subjective well-being for SNR was significantly different than for both Protestants and Catholics. Moderation is a precondition for mediated moderation; thus, mediated moderation analyses were only run for the interaction between Protestants and spirituality, and between Catholics and spirituality, with SNR as the reference group.

First, meaning in life was tested to determine if it mediated the interaction between spirituality and religious affiliation for Protestants and Catholics, with SNR as the reference group.

In the first step of Barron and Kenny's (1986) method, the interaction term is regressed on the outcome (i.e., well-being). For both Catholics ($b = .303$, $SE = .081$, $t(299)= 3.764$, $p <$

.001) and Protestants ($b = .299$, $SE = .085$, $t(299) = 3.522$, $p < .001$), this relationship was significant.

In the second step of Barron and Kenny's (1986) method, the interaction term is regressed on the mediator (i.e., meaning in life). Because two comparisons were being made, the alpha level must be corrected for experimentwise error rate by dividing the original alpha level (.05) by the number of comparisons (2). This yields a more stringent alpha level of .025. For both Catholics ($b = .141$, $SE = .124$, $t(299) = 1.143$, $p = .254$) and Protestants ($b = .09$, $SE = .013$, $t(299) = .694$, $p = .488$), this relationship was non-significant. Because this relationship was non-significant, there is no evidence for mediation and no reason to continue to step 3 (see Table 7).

Table 7
Mediated Moderation Analysis (n=298).

Group	Step	B	SE B	F	R	R^2
Protestant	1 SWB-Spir	0.30**	0.09			
	2 MLQ-Spir	0.09	0.13			
	3 SWB-Spir	0.29***	0.08			
	SWB-MLQ	0.14***	0.04	0.26	0.14	0.02
Catholic	1 SWB-Spir	0.30***	0.08			
	2 MLQ-Spir	0.14	0.12			
	3 SWB-Spir	0.28***	0.08			
	SWB-MLQ	0.14***	0.04	6.10	0.38	0.14***

*p<.05, **p<.01, ***p<.001
SWB=Subjective Well-Being, Spir=Spirituality, MLQ=Meaning in Life Questionnaire

Discussion

Main Effect Results

One of the initial aims of the study was to replicate the established relationship between spirituality and subjective well-being (Hackney & Sanders, 2003; Koenig & Larson, 2001). Replicating this finding builds the foundation for additional testing of established mediators and moderating variables. Consistent with prior research, there was a positive relationship between spirituality and subjective well-being overall ($r = .20$). That is, participants who scored higher on measures of spirituality were more likely to report higher rates of well-being on average. This finding, though not causal, suggests that people who identify as more spiritual, regardless of religious affiliation, are more likely to report higher levels of well-being. This supports Koenig and Larson's (2001) theory that religion provides an optimistic worldview that increases people's ability to make meaning, gives hope, provides direction, and improves overall well-being.

Hackney and Sanders' (2003) meta-analysis that incorporated combined data from several prior meta-analyses reported an overall average value of $r = .10$ when looking at the relationship between religiosity and psychological adjustment broadly. When the authors broke down their results by how both spirituality and health/well-being were measured, the findings most representative of the current study (i.e. life satisfaction as the outcome variable vs. other common measures such as psychological distress) ranged from $r = .11$ to $.13$. This suggests that the relationship measured in the present study ($r = .20$) is consistent, though more robust, than prior findings, which supports hypothesis 1. This robustness is somewhat surprising considering that the present study included a healthy sample of participants who identified as atheist and spiritual but not religious who were determined in later analyses to demonstrate no statistically

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significant relationship between spirituality and subjective well-being. One possible explanation for this more robust finding is that the present findings were based on the use of scores from the SBI-15 as the predictor variable that is designed to be a flexible, inclusive measure of spirituality. Historically, scores of spirituality/religiosity have often been generated by single-item measures of church attendance, which surely fail to capture many facets of participants' search for the sacred and therefore may miss or suppress more robust findings.

Spiritual Affiliation/Religious Tradition as a Moderator

Historically, much of the research examining the link between spirituality and health and well-being has ignored the religious affiliation of the participant and makes the assumption that spirituality for one group means the same thing as spirituality for another (Tix, Johnson, Dik, & Steger, 2013). This may have contributed to some of the unclear and even conflicting results that have historically obfuscated the literature. If a given sample includes heterogeneous participants from a variety of religious traditions, certain groups could potentially demonstrate stronger or weaker relationships with regard to a number of variables. For example, Tix et al. (2013) found a moderating effect of religious denomination on religious commitment and mental health within a Christian sample suggesting that religious commitment predicted better mental health outcomes for Evangelical Protestants than Catholics or Mainline Protestants. High levels of spirituality may mean something completely different to someone who identifies as spiritual but not religious than it does to someone who identifies as Protestant. That is, spiritual affiliation or religious tradition may demonstrate a moderating effect. Different spiritualities promote different worldviews, beliefs, practices, etc. and therefore impact the psychological functioning of participants in different ways (Tix & Frazier, 2005). For this reason, religious affiliation was examined as a moderating variable in the present study.

In an attempt to gain a clearer picture into the nature of the relationship between spirituality and well-being, spiritual affiliation was tested as a potential moderating variable. Given that different affiliations have differing practices, worldviews, and beliefs, it follows that they may also experience the impact of their spirituality differently.

In partial support of hypothesis 2, spiritual affiliation was indeed found to moderate the relationship between spirituality and well-being. Taking spiritual tradition into account explained an additional 5.9% of the variance in the present study, which further promotes the argument of Tix, Johnson, Dik, and Steger (2013) that spiritual affiliation/religious tradition should be considered in this field of study. Tix and Frazier (2005) suggest that one possible explanation for differences found between spiritual affiliations lies in theological differences. They posit, for example, that Catholic theology is typically associated with penance for sins, confession, and doing good works to achieve salvation whereas Protestant theology focuses on the forgiveness of sin through grace alone. The authors suggest that theological differences such as these may explain the differences they have previously uncovered between the traditions (e.g. intrinsic religiosity was related to anxiety and depression for Catholics but not for Protestants).

In further support of hypothesis 2, the relationship between spirituality and well-being was positive and statistically significant for Protestants and Catholics and non-significant for atheists. It logically follows that atheists would be expected to have either a weak or non-existent relationship between their spirituality scores and well-being scores, as spirituality is likely to be less important in their lives and this was, in fact, the case.

Contrary to hypothesis 2, participants who identified as spiritual but not religious had spirituality and well-being scores that formed a non-significant, negative relationship. This suggests that the link between spirituality and subjective well-being is particularly salient for

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Protestants and Catholics. These results could have several interpretations. Perhaps this relationship is more salient for more traditional or organized forms of worship. It is also possible that participants who identify as spiritual but not religious have more ambiguous or yet to be understood relationships with their spirituality that influence their scores (discussed in further detail below).

Mediators in the Spirituality Well-being Relation

In addition to taking into account the context of participant's spiritual beliefs, another aim of the present study was to replicate the consistent prior findings that several psychospiritual variables mediate the relationship between spirituality and well-being (Hill & Pargament, 2003). Specifically, social support, spiritual support, spiritual strivings, and meaning in life have all been demonstrated to partially explain why spirituality and subjective well-being demonstrate a consistent relation (Hill & Pargament, 2003).

Contrary to hypotheses 3 through 5, social support, spiritual support, and spiritual strivings did not mediate the relationship between spirituality and subjective well-being. There are many possible explanations for social support, perceived connection with God, and spiritual strivings not receiving support as mediating variables in the present study. It is possible that these mediators are more salient to particular populations outside of the present sample. Furthermore, many researchers have argued that the specific way spirituality is measured and operationalized has influence over the findings obtained. In the case of the present study, which used a more inclusive and perhaps less traditional measure of spirituality, it is possible that this method of assessment failed to capture these relationships. Specifically, it is possible that the historically often-assessed measure of church attendance relates more strongly to social support (since those who score highly are by definition in social contact with others), which in turn

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would relate to subjective well-being (George et al., 2002). Also, the instrument in the present study used to measure social support (ISEL) demonstrated reliability below what is traditionally considered acceptable, which may have influenced the detection of a mediating relationship for social support specifically due to reduced statistical power.

Vilchinsky and Kravetz (2005) used path analysis to measure a variety of mediators in the relation between religious beliefs and practices and subjective well-being and psychological distress in a group of both secular and religious subsamples of Israeli Jewish participants. The authors also failed to replicate the finding that social support mediates the positive relation to subjective well-being (or the negative relation with psychological distress) and questioned if social support as a mediating variable is perhaps more salient for Christian populations. The present study's findings would contrast with this particular hypothesis, however, as social support was not found to mediate the relationship in a predominately Christian sample.

George et al. (2002) question the role of social support (especially generic non-religious social support) as a mediating variable given that findings have been mixed. The authors state, "It should be noted that when social support fails to mediate the relationship between religion and health, this does not mean that social support is unimportant for health. Indeed, in every study cited in which social support did not mediate that relationship, it was a statistically significant predictor of the health outcome (mortality, disability, depression, physical health). Social support is robustly related to health. The question that remains unanswered is the extent to which it mediates the religion–health connection" (p. 195). This sentiment very much applies to the present study, not just in the case of social support, but also in the case of spiritual support and spiritual strivings. Although these variables did not demonstrate evidence of mediation in the

present study and their relevance in mediating the spirituality-well-being relation remains in question, they remain important variables in the study of subjective well-being.

Consistent with the findings of Vilchinsky and Kravetz (2005), only meaning in life was found to mediate the relationship between spirituality and subjective well-being in the present study. Meaning in life demonstrated full mediation, which suggests that increased spirituality is related to increased meaning in life, which in turn is related to increased well-being. This finding somewhat supports hypothesis 6, which predicted that meaning in life would *partially* mediate the relation. This finding makes theoretical sense in light of Steger and Frazier's (2005) prediction that "religion gives people a sense of meaning and coherence about ultimate truths" (p. 574) and is further supported by prior findings demonstrating that meaning in life is indeed related to a number of positive outcomes including well-being (Zika & Chamberlain, 1987). This finding also fits nicely into Koenig and Larson's (2001) similar theory that perhaps religion provides an optimistic worldview that increases people's sense of meaning that subsequently enhances hope, direction, and perhaps overall well-being.

Mediated Moderation Findings

To understand the complexity of the relationship between spirituality and well-being with more specificity, a mediated moderation analyses was calculated to examine the mediating role of meaning in life within the context of the spiritual affiliations found to have a significant moderating relation (i.e. Catholic and Protestant groups). Contrary to hypothesis 7, no support for a mediated moderation relationship was found. This finding should be interpreted with caution. Although no mediated moderation relationship was found in the present study, future research should continue to explore mediating variables within the context of homogeneous

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religious tradition as it has the potential to allow for a clearer understanding of the relationships involved.

There are several possible explanations for the lack of evidence of a mediated moderation relationship. It is possible that the moderating relationships discovered in the present sample were not as robust as those that may be found with a more diverse sample, particularly if a wider variety of religious traditions were included. Further, it is possible that the measures and operational definitions used in the present study influenced this finding in such a way that they were not detected.

Exploration of Spiritual but not Religious Identity

An additional exploratory aim of the present study was to learn more about the growing population of people identifying as spiritual but not religious. Prior research has suggested that the population of people who identify as spiritual but not religious has continued to grow, particularly among college-aged individuals (Hyman & Handal, 2006; Roof & Greer 1993; Zinnbauer et al., 1997).

Proportionally, this was the largest group identified in the present sample (28.2%), which highlights the importance for their inclusion in this mode of research. Participants identifying as spiritual but not religious had spirituality scores lower on average than Protestants and Catholics but higher than atheists demonstrating that they have qualities that distinguish them from other groups. Furthermore, participants who identified as spiritual but not religious were found to have a non-significant, and in fact negative, relation between spirituality and well-being. It is important to note that SNR participants well being scores were statistically similar to the other groups included in this study, so they were not reporting less well-being overall, their scores simply suggested that as their spirituality increased, their well-being decreased.

Ammerman's (2013) qualitative data suggest that those who identify as spiritual but not religious "do not represent a prevalent new form of religiosity, so much as a prevalent form of cultural rhetoric" (p. 275). Ammerman (2013) argues that people who identify as spiritual but not religious are drawing moral boundaries, often comprised of those who have left organized religious upbringings and wish to presently be unaffiliated with an organized institution. Perhaps this shift in religious identity provides a conflict that impacts the relationship between spirituality and subjective well-being in such a way that it causes strain or existential upheaval. It is also possible that those that search for the sacred outside of what are considered more traditional communal contexts do not reap the same benefits as those who do. For example, given that meaning in life was found to fully mediate the relationship between spirituality and subjective well-being, it is possible that people who identify as spiritual but not religious have different relationships with meaning than those who identify with more traditional forms of worship and in turn have a different relationship to subjective well-being.

It is also possible that those who identify as spiritual but not religious are too diverse from one another to be considered a homogeneous group suppressing what might be more consistent findings. As Ammerman (2013) suggests, people who identify as spiritual but not religious may not represent a new cohesive form of religiosity but may warrant further investigation as the present data reflect potentially important differences between groups.

Overall, subjective well-being scores were statistically similar between those who identified as spiritual but not religious and those who identified as Catholic, Protestant, and atheist which contrasts with Hyman and Handal's (2006) finding that participants who identified as "just spiritual" had lower overall scores of well-being than those who identified as "both spiritual and religious." Since little is known about the population, much speculation could be

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made about this finding but at the very least it highlights the fact that this group has characteristics that may be different from other affiliations and if lumped together with other groups in future analyses, results are likely to be less clear. Findings with regard to this population should be interpreted with caution in the present study due to the absence of data on this population in general. Results from the present study do, however, suggest that future research continue to examine the spirituality well-being relation within the context of religious affiliation.

Specifically, researchers should continue examining qualitatively the core beliefs of those who identify as spiritual but not religious to determine if they are a homogeneous enough group to be assessed as such. If this group were indeed homogeneous and contained the same amount of variability one would expect to see in any denomination of Christianity, for example, then future studies should include those who identify as spiritual but not religious as their distinct group that may moderate outcome variables.

Clinical Implications

Of particular interest to mental health practitioners working to increase well-being for their clients, this study has several implications. Although the findings are not causal, it follows that assessing spiritual/religious values and pursuits, regardless of affiliation, may be of benefit given the positive relation between spirituality and well-being. In individual therapy, having an understanding of a client's worldview is not only an important facet of their identity but has implications for their physical and mental health and their subjective well-being.

Perhaps the most interesting and important clinical implication of the present study is the finding that meaning in life fully mediates the relationship between spirituality and well-being. This supports the existential notion that having meaning and purpose is part of living a fulfilling

healthy life. Practitioners will likely find benefit in helping their more spiritual/religious clients understand the larger framework and guiding principles of their spirituality, which will in turn enhance their well-being. The findings of the present study are not limited to those who identify as spiritual or religious, however.

These findings may also have clinical implications for people who do not identify as spiritual or religious. In the case of atheist or other non-religious identifying clients, a therapy intervention designed to address spirituality may not be warranted, however, they may benefit from discussing pursuits that increase their sense of meaning in life. From the perspective of the practitioner, regardless of their client's religious affiliation, it follows that interventions related to meaning in life may be of benefit to clients who appear to be missing direction or purpose. Steger and Frazier (2005) wrote "Meaning may also be a means for discussing matters of ultimate importance without necessarily touching on religion, or alternatively, may provide a common framework for addressing some religious concerns in session" (p. 580).

Practitioners, particularly those who work with younger adults or in college counseling centers, should be aware of the growing population of people who identify as spiritual but not religious. Given that little is known about this population, it would behoove practitioners to ask their clientele more questions related to this identity to better understand what this identity means to them and how this identity may impact their life.

Limitations and Directions for Future Research

There are several limitations to the present study that should be considered when interpreting results. All of the data collected was self-report and cross-sectional in nature. This means that the scores provided are from the participants' own subjective interpretation of their thoughts/feelings/behaviors rather than objective measurement of testable qualities and may lead

to inconsistent, incomplete, or incorrect data. Furthermore, the cross-sectional nature of the data reflects what the participants reported at the time of completing the instruments and is unable to show how their scores may or may not change over time. Given the design and cross-sectional nature of the study, causal inferences cannot be drawn. The relationships tested are assumed to be in the direction measured and discussed in prior research, however, the present design is unable to determine directionality.

The present sample was taken from one geographic region and only represented a very small number of spiritual traditions so results should be generalized to other groups with caution. Social support measured by the ISEL lacked sufficient reliability in the present sample so the fact that social support was not replicated as a mediator should also be interpreted with caution.

Future research should explore more diverse samples of religious traditions to test if findings replicate across a wider variety of affiliations/traditions. Given the important findings that religious traditions consistently demonstrate differences in the relation of spirituality to mental health and well-being, future studies should continue to include spiritual affiliation as a moderating variable and use prospective designs to improve upon what is known about the relationship. Specifically, Preacher, Rucker, and Hayes (2007) recommend an asymptotic and bootstrapping approach to measure "conditional indirect effects" that would allow for even more statistically refined results when testing multiple mediators and moderating variables within the spirituality well-being relation. This strategy would allow future researchers to assess the fit of the empirical data with the current theoretical assumptions and either refine or confirm current understandings of the relationship between spirituality and subjective well-being and the associated moderating and mediating variables. This method not only tests the direct effects of each mediating and moderating variable as well as the indirect effects on one another, but allows

for the relationships to be tested simultaneously. Additionally, this methodology would allow researchers to use multiple measures per construct without introducing colliniarity issues.

Researchers should be mindful about their choice of instruments and how they operationalize definitions with regard to spirituality specifically. Future research should continue to explore the multifaceted nature of the construct in an attempt to better clarify what specific relationships exist for what specific groups and consider multiple measures of spirituality. Psychospiritual mediators should continue to be tested in prospective models, particularly taking into account spiritual affiliation as a moderating variable to clarify the discrepancy between the present studies lack of findings related to social support, spiritual support, and spiritual strivings.

Given the growing numbers of people identifying as spiritual but not religious, qualitative data gathered on perceptions and definitions of what a spiritual but not religious identity means would be helpful to better understand the population in general. Specifically, it would be useful to know if those who identify as spiritual but not religious have any number of similar traits, beliefs, or behaviors that impact their relationship between spirituality and subjective well-being. Furthermore, this research would help determine if this group is conceptually germane to study as a homogeneous group or if it is more of a "catch-all" descriptor that lacks any cohesive characteristics. If this group is found to have characteristics too heterogeneous to be useful to be studied as a group then additional methods and instruments would become important to better distinguish between participants' spiritual identification.

Given the importance (and robustness) of meaning in life in this line of research, future research should explore the presence of meaning in the lives of those who identify as spiritual but not religious as well as any additional religious groups that have yet to be studied.

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APPENDIX A
(Questionnaire)

SYSTEMS OF BELIEF INVENTORY (SBI-15R)

1* Religion is important in my day-to-day life.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

2* Prayer or meditation has helped me cope during times of serious illness.

    0 None of the time; 1 A little bit of the time; 2 — A good bit of the time; 3 — All of the time

3** I enjoy attending religious functions held by my religious or spiritual group.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

4* I feel certain that God in some form exists.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

5** When I need suggestions on how to deal with problems, I know someone in my religious or spiritual community that I can turn to.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

6* I believe God will not give me a burden I can not carry.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

7** I enjoy meeting or talking often with people who share my religious or spiritual beliefs.

    0 — None of the time; 1 — A little bit of the time; 2 — A good bit of the time; 3 — All of the time

8* During times of illness, my religious or spiritual beliefs have been strengthened.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

9** When I feel lonely, I rely on people who share my spiritual or religious beliefs for support.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

10* I have experienced a sense of hope as a result of my religious or spiritual beliefs.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

11* I have experienced peace of mind through my prayers and meditation.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

12* One's life and death follows a plan from God.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

13** I seek out people in my religious or spiritual community when I need help.

    0 — None of the time; 1 — A little bit of the time; 2 — A good bit of the time; 3 — All of the time

14* I believe God protects me from harm.

    0 — Strongly disagree; 1 — Somewhat disagree; 2 — Somewhat Agree; 3 — Strongly Agree

15* I pray for help during bad times.

    0 — None of the time; 1 — A little bit of the time; 2 — A good bit of the time; 3 — All of the time

Interpersonal Support Evaluation List (ISEL) -- General Population

This scale is made up of a list of statements each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" is you think it is false but are not absolutely certain.

1. There are several people that I trust to help solve my problems. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

2. If I needed help fixing an appliance or repairing my car, there is someone who would help me. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

3. Most of my friends are more interesting than I am. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

4. There is someone who takes pride in my accomplishments. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

5. When I feel lonely, there are several people I can talk to. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

6. There is no one that I feel comfortable to talking about intimate personal problems. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

7. I often meet or talk with family or friends. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

8. Most people I know think highly of me. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

9. If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

10. I feel like I'm not always included by my circle of friends. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

11. There really is no one who can give me an objective view of how I'm handling my problems. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

12. There are several different people I enjoy spending time with. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1) ▯

13. I think that my friends feel that I'm not very good at helping them solve their problems. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

14. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone. ▯ ___definitely true (3) ___definitely false (0) ▯ ___probably true (2) ___probably false (1)

15. If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

16. If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

17. I feel that there is no one I can share my most private worries and fears with. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

18. If I were sick, I could easily find someone to help me with my daily chores. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

19. There is someone I can turn to for advice about handling problems with my family. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

20. I am as good at doing things as most other people are. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

21. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

22. When I need suggestions on how to deal with a personal problem, I know someone I can turn to. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

23. If I needed an emergency loan of $100, there is someone (friend, relative, or acquaintance) I could get it from. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

24. In general, people do not have much confidence in me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

25. Most people I know do not enjoy the same things that I do. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

26. There is someone I could turn to for advice about making career plans or changing my job. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

27. I don't often get invited to do things with others. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

28. Most of my friends are more successful at making changes in their lives than I am. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

29. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.). ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

30. There really is no one I can trust to give me good financial advice. ⬚ ___definitely true (3) ___definitely

false (0) ⬚ ___probably true (2) ___probably false (1)

31. If I wanted to have lunch with someone, I could easily find someone to join me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

32. I am more satisfied with my life than most people are with theirs. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

33. If I was stranded 10 miles from home, there is someone I could call who would come and get me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

34. No one I know would throw a birthday party for me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

35. It would me difficult to find someone who would lend me their car for a few hours. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

36. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

37. I am closer to my friends than most other people are to theirs. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

38. There is at least one person I know whose advice I really trust. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

39. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

40. I have a hard time keeping pace with my friends. ⬚ ___definitely true (3) ___definitely false (0) ⬚ ___probably true (2) ___probably false (1)

Spiritual Support Scale

1. "I experience God's loving and caring on a regular basis,"
    "not at all accurate" 1 2 3 4 5 "completely accurate"

2. "I experience a close personal relationship with God,"
    "not at all accurate" 1 2 3 4 5 "completely accurate"

3. "My religious faith helps me to cope during times of difficulty."
    "not at all accurate" 1 2 3 4 5 "completely accurate"

Spiritual Strivings

One way to describe someone's personality is to consider the purposes or goals that the person seems to be seeking in their everyday behavior. We are interested in the things that you typically or characteristically are trying to do. We might call these objectives "strivings". Here are some examples of strivings:

Trying to be physically attractive to others
Trying to persuade others that one is right
Trying to help others in need of help
Trying to seek new and exciting experiences
Trying to avoid being noticed by others
Trying to avoid feeling inferior to others

Note that these strivings are phrased in terms of what a person is
"trying" to do, regardless of whether the person is actually successful. For example, a person might "try to get others to like them" without necessarily being successful.

These strivings may be fairly broad, such as "trying to make others
happy" or more specific "trying to make my partner happy". Also note that the strivings can be either positive or negative. That is, they may be about something you typically try to obtain or keep, or things that you typically try to avoid or prevent. For example, you might typically try to obtain attention from others, or you might typically try to avoid calling attention to yourself.

You can see that this way of describing yourself is different from using trait adjectives (friendly, intelligent, honest). We do not want you to use trait adjectives. Since you may have never thought of yourself in this way before, think carefully about what we are asking you to do before you write anything down. Please keep your attention focused on yourself. Do not mentally compare the things that you typically do with what other people do. Think of yourself and your purposes alone. Be as honest and as objective as possible. Do not give simply socially desirable strivings or strivings which you think you "ought" to have. You might find it useful to think about your goals in different domains of your life: work and school, home and family, social relationships, and leisure/recreation. Think about all of your desires, goals, wants, and hopes in these different areas.

In the blanks on this page, write down as many strivings as you can. There is no limit to the number of strivings you can list, but we would like you to write down at least 10. Take your time with this task; spend some time thinking about your goals before you begin

The Meaning in Life Questionnaire

Please take a moment to think about what makes your life feel important to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below:

1 Absolutely Untrue
2 Mostly Untrue
3 Somewhat Untrue
4 Can't Say True or False
5 Somewhat True
6 Mostly True
7 Absolutely True

1. I understand my life's meaning.
2. I am looking for something that makes my life feel meaningful.
3. I am always looking to find my life's purpose.
4. My life has a clear sense of purpose.
5. I have a good sense of what makes my life meaningful.
6. I have discovered a satisfying life purpose.
7. I am always searching for something that makes my life feels significant.
8. I am seeking a purpose or mission for my life.
9. My life has no clear purpose.
10. I am searching for meaning in my life.

The Satisfaction With Life Scale

Below are five statements with which you may agree or disagree. Using the 1 -7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is as follows:

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neither agree nor disagree
5 = slightly agree
6 = agree
7 = strongly agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, 1 would change almost nothing.