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Conceptualization and Measurement of Spirituality: Towards the Development of a Nontheistic  
Spirituality Measure for Use in Health-Related Fields

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A thesis  
presented to  
the faculty of the Department of Psychology  
East Tennessee State University

In partial fulfillment  
of the requirements for the degree  
Master of Arts in Psychology

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by  
Valerie M. Hoots  
December 2017

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Dr. Matthew T. McBee  
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Keywords: Spirituality, Nontheistic, Religiosity, Conceptualization, Validation, Measurement

## ABSTRACT

### Conceptualization and Measurement of Spirituality: Towards the Development of a Nontheistic Spirituality Measure for Use in Health-Related Fields

by

Valerie M. Hoots

Relationships between spirituality and health outcomes are well supported in research; however, measurement of spirituality often reflects a Judeo-Christian framework and is predominantly theocentric, neglecting the increasing religious pluralism and non-traditional expressions of spirituality in the United States. A new measure of spirituality was based on a conceptualization of nontheistic spirituality that is understood to be a relatively stable motivational process entailing a search for sacred connection, with “sacred” being defined by individual perceptions and not necessitating divine association. Item development for the current instrument included an initial pool of 65 items and two phases of revision and content validation. The resulting 45-item pool was examined for content validity via two review phases in which expert reviewers rated quality of item form and item congruence with the present spirituality conceptualization. This research addresses current measurement limitations and provides a foundation for continued revision and validation of a nontheistic-based spirituality measure.

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## CHAPTER 1

### INTRODUCTION

#### **Spirituality and the Human Experience**

Spirituality and religiosity are considered to be central to the human experience for most individuals (Berry, 2005; Hall & Edwards, 2002; MacDonald, 2000; Piedmont & Wilkins, 2013). In fact, Piedmont and Wilkins (2013) argue that spirituality and religiosity are so fundamental to the human experience that they represent an independent dimension of personality. Religiosity and spirituality are both abstract and multifaceted constructs that are equated with providing a framework for humans to explore their belief systems surrounding human existence (Baumsteiger & Chenneville, 2015). Because of the centrality of spirituality and religiosity to the human experience, increasing attention across domains (e.g., psychology, counseling, nursing, social work) has led to a growing body of research on how spirituality and religiosity interact with, and impact, various aspects of human nature and functioning (Berry, 2005; Frey, Daaleman, & Peyton, 2005; George, Larson, Koenig, & McCullough, 2000; Jordan, Masters, Hooker, Ruiz, & Smith, 2011; Lawler-Row & Elliot, 2009; MacDonald, 2000; McSherry, Draper, & Kendrick, 2002; Park et al., 2017, Powell, Shahabi, & Thoresen, 2003; Selman, Harding, & Speck, 2011; Sessanna, Finnell, Underhill, Chang, & Peng, 2010). However, the increased attention has brought to light the difficulties in defining spirituality and religiosity in such a way that the constructs can be measured validly and reliably across diverse populations (Berry, 2005; Moberg, 2002; Powell et al., 2003; Sifers, Warren, & Jackson, 2012). Therefore, the purpose of this study is to provide a solid conceptual and theoretical framework for understanding spirituality from which a general measure of nontheistic spirituality is created and ultimately validated for use in health-related fields. While religiosity and spirituality often

overlap within their theoretical underpinnings for some individuals, this study will focus on the construct of spirituality, and within that, specifically nontheistic spirituality (Ellison & McFarland, 2013). To be discussed in more detail later in this chapter and in Chapter 2, measurement of religiosity and spirituality to date predominantly focuses on theocentric measurement resulting in a gap in research literature and subsequent knowledge regarding nontheists' spirituality and correlates with health outcomes (Daaleman & Frey, 2004; George et al., 2000; Hill & Edwards, 2013; Hodge, 2002; Moberg, 2002; Sessanna et al., 2010; Vachon, 2008).

### **Historical and Cultural Context**

In order to understand the dilemmas surrounding the conceptualization and measurement of spirituality, it is important to understand the cultural context of spirituality and religiosity from a historic standpoint within the field of psychology over the last century. Spirituality and religiosity are rooted in culture, and culture is rooted in spirituality and religiosity (Loewenthal, 2013). As such, the cultural interaction between Western religious traditions (predominantly Judeo-Christian) and scientific empiricism in the early 1900's resulted in a psychological research approach to religiosity and spirituality that was founded upon materialism (i.e., emphasis on what is tangible), atomism (i.e., reducible to individual parts), and universalism (i.e., applicable across contexts) (Berry, 2005; Slife, Hope, & Nebeker, 1999). From the 1920s to the 1950s measurement of spirituality experienced two key advances: 1) the influences of Carl Jung and Victor Frankl sparked interest in spirituality with regards to psychological well-being prompting measurement in health-related fields, and 2) Gordon Allport introduced the concept of religiosity from an intrinsic (i.e., religiosity as a motivator in and of itself ) and extrinsic standpoint (i.e., self-focused religious expression with the aim of benefiting beyond the benefit



of religion in and of itself ) which led to a measurement approach that went beyond frequency of religious behaviors (Allport & Ross, 1967; Berry, 2005; Loewenthal, 2013). Several years later, in the 1960s and the 1970s, the United States experienced a cultural shift towards pluralism and multiculturalism, in which there was a much greater degree of spiritual and religious cultural diversity (Berry, 2005). Ellison and McFarland (2013) explain that it was also during this time period that the gradual separation of religiosity from spirituality began within a growing portion of the population. Since the 1980s the population in the United States has become increasingly religiously pluralistic, resulting in a decrease in traditional organized religious involvement and an increase in a focus on spirituality and alternative individualized spiritual/religious expressions (Ammerman, 2013; Berry, 2005; Ellison & McFarland, 2013; Hill & Pargament, 2003; Zinnbauer, Pargament, & Scott, 1999). Hout and Fischer (2002) cite that the number of adults in the US who indicated no religious affiliation on the General Social Survey increased from 7% in 1991 (which had been a steady estimate for approximately 17 years) to 14% in 1998. Ellison and McFarland (2013) refer to this cultural shift as a steady decrease in religious affiliation, citing the baby boomer generation as the start of more judicious selection of various aspects of religion and subsequent generations as having less loyalty to, and faith in, religious institutions. Others, such as Hout and Fischer (2002), attribute this decline to political climate, while Loewenthal (2013) cites a combination of cultural interactions among pluralism, education, individualism, and material success. Nonetheless, this sociocultural movement is the foundation upon which the more expansive construct of spirituality gained, and continues to gain, increasing interest in the United States (Berry, 2005; Hill & Pargament, 2003; Monod et al., 2011). It should be noted that while the majority of adults currently living in the US report religion (predominantly Christianity) to be the source of their spirituality, there has been a growing number of

individualized alternative sources of spirituality over the last couple of decades that range from Eastern traditions (e.g., Buddhism) to expressions of spirituality within life domains such as art and health (Ellison & McFarland, 2013). Due to the importance of culture in psychological science, increasing attention is being paid to the construct of spirituality in psychological research (Berry, 2005; Frey et al., 2005; Hill & Pargament, 2003; Monod et al., 2011). Further, the language used to define spirituality is shifting and evolving with culture, resulting in a more expansive definition of spirituality (Koenig, 2015; McSherry & Cash, 2004; Pargament, 1999). The development of this measure of nontheistic spirituality aims to respond to this cultural shift by examining the construct of spirituality from a more pluralistic perspective outside of the realms of theistic-based belief systems.

### **Rationale and Plans for a General Focus on Nontheistic Spirituality**

In addition to the cultural shift toward individualistic expressions of religion and spirituality, methodological limitations within existing research on the conceptualization and measurement of spirituality inform and guide the empirical rationale for the development of this targeted measure of nontheistic spirituality. The majority of existing research on spirituality is couched within a married construct of religiosity and spirituality, specifically with regards to mental and physical health (Anand, Jones, & Gill, 2015; Baumsteiger & Chenneville, 2015; Daaleman & Frey, 2004; Frey et al., 2005; George et al., 2000; Hill & Pargament, 2003; Monod et al., 2011; Powell et al., 2003; Rosmarin et al., 2011; Sessanna et al., 2010). While a merged construct of religiosity/spirituality (i.e., spirituality as a related dimension of religiosity and vice versa) presents no problems for those individuals who indicate religion to be a source of their spirituality, it limits use of this type of measure, as well as generalizability of results, with regards to health outcomes in nontheistic populations. Current measurement of spirituality is

limited for individuals who maintain spiritual beliefs outside of the realm of theism (Daaleman & Frey, 2004; George et al., 2000; Hill & Edwards, 2013; Vachon, 2008). Operating from a construct that confines spirituality to a theistic-based belief system complicates interpretation of findings regarding health-related outcomes within the population of individuals maintaining a nontheistic-based spiritual perspective (Hodge, 2002; Moberg, 2002; Sessanna et al., 2010). Researchers have called for measurement of, and research on, spirituality outside the bounds of Christianity and beyond theistic frameworks (Hill & Edwards, 2013; MacDonald, 2000; Pargament & Mahoney, 2002; Powell et al., 2003; Sessana et al., 2010; Vachon, 2008), and the development of this measure aims to respond to that call.

### **Rationale for Specified Use in Health-Related Fields**

An increasing number of healthcare fields and providers are recognizing the need to address spiritual dimensions in comprehensive patient care (McSherry et al., 2002; Pearce, 2013; Piedmont, 2001; Pujol, Jobin, & Beloucif, 2016; Selman et al., 2011; Sessanna et al., 2010; Vachon 2008). Not only do patients want their healthcare providers to acknowledge spirituality as part of their identity, empirical literature supports the relationship between spirituality/religiosity and various mental health and physical health outcomes (discussed further in Chapter 2). To establish empirical rationale for measurement of nontheistic spirituality with relation to health outcomes, I will examine health-related research literature for religiosity in so far as it pertains to conceptualization and measurement of spirituality and provide a detailed review of existing research on spirituality with regards to health outcomes in Chapter 2. This approach to literature review is necessary because, although I aim to measure nontheistic spirituality, the research to date has not sufficiently addressed religiosity and spirituality separately; therefore, the basis for examining the relationships between spirituality and health

should be built initially with religiosity included. I will begin with a broad overview of research literature pertaining to religiosity and spirituality with regards to health outcomes, then I will narrow my focus to specifically spirituality. By providing empirical support for the relationship between religiosity/spirituality and health outcomes, I aim to establish empirical rationale for examination of nontheistic spirituality in order to determine how it differs from more thoroughly researched spiritual expressions (e.g., theistic spirituality) with regards to health outcomes. As Rosmarin and colleagues (2011) explain, even though religiosity and spirituality are related, they are not synonymous and may differ with regards to prediction of various health outcomes. Just as religiosity and spirituality are related yet differ in predictive abilities, nontheistic and theistic spirituality may be similar with regards to core content, but they may differ with regards to prediction of health outcomes. Thus, the chosen method of literature review used aims to provide a foundation upon which the need for examination of nontheistic spirituality becomes apparent.

## CHAPTER 2

### LITERATURE REVIEW

#### **Spirituality and Health Outcomes**

Contextually, health-related fields are devoting increasing attention to spirituality. The focus on spirituality with regards to physical and mental health arises not only within research, but also from the applied standpoint of patients and medical professionals. Pearce (2013) provides several reasons as to why religiosity and spirituality are essential to healthcare, including but not limited to the following: the empirically founded relationships among health and spirituality/religiosity, centrality of spirituality/religiosity to the majority of US adults, patients' expressing of desires for this dimension of their identity to be acknowledged, and lastly regulation of inclusion of religious/spiritual dimensions in holistic care. The health-related quality of life (HRQoL) field incorporates spirituality into healthcare from the standpoint of the patient (Frey et al., 2005). Healthcare providers acknowledge the role of spirituality in patient care, and are becoming more and more attentive to the relationship between spirituality and well-being of their patients throughout the course of their medical treatments (McSherry et al., 2002; Piedmont, 2001; Selman et al., 2011; Sessanna et al., 2010). For example, the Joint Commission on Accreditation of Healthcare Organizations requires documentation of spiritual assessment in every patients' medical record (Pearce, 2013). Pearce (2013) explains that providers who acknowledge and are willing to address spiritual issues give patients a sense that the providers are concerned with the patient's whole being. Along these same lines, Rosmarin, Wacholtz, and Ai (2011) discuss a poll conducted in medical settings that found that 40% of the 250 patients surveyed who were receiving care (either psychological or medical) expressed interest in either discussing spiritual concerns (30% indicated religious matters) with their providers or receiving

integrative treatments that incorporate their spirituality. Further, in their review of polls and research literature, Pujol and colleagues (2016) cite that 41-94% of patients (including those that indicate no religious affiliation) express receptiveness to discussion of spirituality with their healthcare providers.

Much of what we do know about spirituality and health comes from merged constructs of spirituality/religiosity and/or from a Judeo-Christian framework (Anand et al., 2015; Baumsteiger & Chenneville, 2015; Daaleman & Frey, 2004; Frey et al., 2005; George et al., 2000; Hill & Pargament, 2003; Monod et al., 2011; Powell et al., 2003; Rosmarin et al., 2011; Sessanna et al., 2010; Vachon, 2008), and little is known with regards to the spirituality of those who identify as nontheistic. Because of the importance of spirituality to humanity and its increasing attention within applied settings, there is a need within research to understand if, and how, nontheistic spirituality relates to health outcomes. Development of a valid measure of nontheistic spirituality that explores the nature of nontheistic spirituality is an initial step towards addressing this need.

When examining research literature surrounding spirituality, I will begin by reviewing literature on both religiosity and spirituality due to the frequency of a merged construct in research literature and then I will move to research literature dealing exclusively with the investigation of spirituality. There is an awareness among researchers of the potential mechanisms by which spirituality and/or religiosity impact health (i.e., social support, health behaviors, presence of meaning and purpose, and a coping resource) (Berry, 2005; George et al., 2000; Idler et al., 2003; Monod et al., 2010; Selman et al., 2011); however, empirical literature regarding the nature of nontheistic spirituality and its correlates with health outcomes is scarce. There is a vast amount of research dedicated to religiosity and spirituality with regards to health

indicating predominantly positive associations between religiosity/spirituality and various physical and mental health outcomes; yet very little is known about how, or if, these health outcomes relate to nontheistic spirituality, and if so, if the association is in the same positive direction. Despite the attention in both research and applied settings, varied conceptualizations of spirituality (i.e., religious-based, theistic-based, and nontheistic-based) and the time lag in research have clouded measurement and subsequently, the interpretation and generalizability of research findings (Baumsteiger & Chenneville, 2015; Daaleman & Frey, 2004; Frey et al., 2005; George et al., 2000; Hill & Pargament, 2003; Monod et al., 2011; Powell et al., 2003; Rosmarin et al., 2011; Sessanna et al., 2010).

Given that spirituality has usually been measured as a combined construct with religiosity over the last several decades with regards to health-related factors, existing research provides much less information on the specific role spirituality, even less so nontheistic spirituality, may play in health outcomes. However, an overview of existing findings regarding the relationship between religiosity/spirituality and health include the following: closeness with God related to a decrease in depressive symptoms (Hill & Pargament, 2003); religiosity is associated with a reduction in the probability of health disorders and/or disabilities, life longevity, and enhanced recovery (George et al., 2000); religious involvement was associated with reduction in the probability of mental health and substance abuse disorders, as well as better recovery (George et al., 2000; Idler et al., 2003;); religiosity/spirituality is a predictor of emotional adjustment and well-being, along with a reduction in likelihood of mortality (Jordan et al., 2011); spirituality and religiosity are used as coping resources (Maltby & Day, 2001; Trankle, 2006); and religiosity/spirituality is a predictor of psychological and physical well-being of aging individuals (Lawler-Row & Elliot, 2009). It is also important to note that religiosity and

spirituality have been linked to negative outcomes (i.e., anxiety and/or depression) in the presence of spiritual distress/religious struggle and/or depending on the type of religious beliefs one holds (Baumsteiger & Chenneville, 2015; Jordan et al., 2011; Monod et al., 2010; Monod et al., 2011). While religiosity and spirituality frequently predict positive health outcomes in existing literature, there are exceptions. In a recent review of empirical findings on the relationships among religiosity/spirituality and health outcomes, Koenig (2015) cited that up to 12% of all studies (3300 studies) between 1932 and 2010 have found a negative association between aspects of spirituality/religiosity (e.g., spiritual struggle, anxiety, distress) across various health outcomes (e.g., well-being, meaning and purpose, hope, self-esteem, optimism, depression, anxiety, suicide, substance abuse, heart disease, cancer, cardiovascular functioning, mortality, exercise, diet, cholesterol, and sexual behavior); whereas, a positive association has been found within 49-93% of all studies.

While the majority of existing literature focuses on a combined construct of religiosity and spirituality, there is a limited amount of health-related research to date that has focused on spirituality as a distinct construct from religiosity, and measures it as such. George and colleagues (2000) cite the review by the National Institute on the Aging Working Group/Fetzer panel and state that of the 200 measures reviewed, less than 10% included specific reference to spirituality and of those that included spirituality, it was connected with religiosity. As mentioned in Chapter 1, measurement of spirituality and religiosity as a merged construct is not problematic if used with appropriate populations (i.e., with individuals who identify as both religious and spiritual). Nonetheless, spirituality measures (whether conceptualized as related to religiosity or independent) represent a minority. However, within this body of research, the following findings have been reported: spirituality has been identified to be an important coping



resource during illness and has been shown to have a positive association with overall psychological and physical functioning (Monod et al., 2010; Monod et al., 2011); it has been negatively linked with various risk markers of cardiovascular health (Holt-lunstad, Steffen, Sandberg, & Jensen, 2011); associated with shorter hospital stays after open-heart surgery (Ai, Wink, & Shearer, 2011); it has been found to be a predictor of self-reported health (Frey et al., 2005); and when comparing spirituality with religiosity, Jordan and colleagues (2011) report spirituality to have a stronger and more consistent relationship with warm and cooperative interpersonal styles. As an aside, it should be noted that existing research also supports religious indicators (relative to spirituality) to be stronger and more consistent predictors of positive health outcomes (e.g., lower levels of psychological distress; higher positive affect and lower rate of mental disorders after trauma; protective factor against substance abuse; reduction in risk of mortality in healthy individuals) (Burriss, Brechting, Salsman, & Carlson, 2009; McIntosh, Poulin, Silver, & Holman, 2011; Park et al., 2017; Powell et al., 2003). Nonetheless, the ability to draw independent predictive conclusions (for religiosity or spirituality) with regards to health outcomes is limited due to confounded measurement of spirituality and religiosity (i.e., predominantly Judeo-Christian and/or merged construct of religiosity/spirituality).

Within the minority of measures that focus on spirituality, even fewer are based on conceptualizations of spirituality outside of theistic-based belief systems. There are a handful of valid measures of spirituality that include a nontheistic spirituality component, including the Existential Well-Being subscale of Paloutzian and Ellison's (1982) Spiritual Well Being Scale (SWBS), the existential spirituality dimension of the RiTE Spirituality Measure (Webb, Toussaint, & Dula, 2014), and the Spiritual Transcendence Scale (STS) (Piedmont, 2001). Of the aforementioned measures, the Existential Well-Being Subscale of the SWBS measures

nontheistic spirituality within the framework of well-being, the RiTE Spirituality Measure allows measurement of both theistic and non-theistic spirituality, and the STS is designed for use with both theistic and nontheistic populations. Strengths and limitations of the aforementioned measures will be discussed later in this chapter. There are a limited number of findings on correlates of nontheistic-based spirituality with health outcomes that have used some of the previously listed measures. Within this body of research, the following findings have been reported: spiritual perceptions (i.e., feelings of inner peace, strong connection to others, being in awe of life, etc.) and religious participation showed independent links with dimensions of psychological well-being, with higher levels of spiritual perceptions associated with greater psychological well-being across eight dimensions (autonomy, personal growth, purpose in life, negative affect, positive affect, positive relations with others, environmental mastery, and self-acceptance) relative to religious participation (Greenfield, Vaillant, & Marks, 2009); spiritual transcendence (i.e., an individual's ability to find meaning in life) correlated with coping and well-being posttreatment in outpatient substance abuse clients (Piedmont, 2004); spiritual transcendence was found to be a predictor of positive sense of meaning in life in late adulthood (Trama & Venus, 2012); and nontheistic daily spiritual experiences were positively correlated (independent of religious commitment) with psychological well-being in hospice patients (Currier, Kim, Sandy, & Neimeyer, 2012). Conversely, spiritual transcendence was positively associated with underage drinking (Burris, Sauer, & Carlson, 2011);

The findings above provide some insight into the importance of measuring spirituality in health-related outcomes; however, interpretation and implication of these findings is limited due to measurement weaknesses. A review of the literature on the relationship between health and spirituality points to the following major criticisms: measurement via use of one or two broad

items (i.e., self-ratings of level of spirituality/religiosity) that do not explore the mechanisms underlying the relationship between health and spirituality (Berry, 2005; Hill & Pargament, 2003; Idler et al., 2003); ad hoc measurement of spirituality in health-related research (Neff, 2008); and varied conceptualizations of spirituality which impacts valid and reliable measurement across diverse populations (Frey et al., 2005; Monod et al., 2011; Powell et al., 2003; Sessanna et al., 2010). Each of these methodological issues shed light on the complexities associated with research that examines the relationship between health and spirituality (Baumsteiger & Chenneville, 2015; Frey et al., 2005; Jordan et al., 2011). Nonetheless, existing research still yields significant findings regarding the predictive value of spirituality for various aspects of physical and mental health (Hill & Pargament, 2003).

### **Conceptualization of Spirituality**

The methodological issues within spirituality and health-related research point to two primary issues of empirical research on spirituality: conceptualization and measurement. Conceptualization and measurement are inherently related and are foundational components of empirical research; therefore, both must be addressed. To begin, a close examination of the concept of spirituality is needed. The core issue within conceptualization of spirituality is its multifaceted nature and its degree of association with, and distinction from, religiosity. Religiosity and spirituality are both abstract and complex constructs which continue to be variably and inadequately explained; therefore, complicating conceptualization and measurement (Berry, 2005; Koenig, 2015, McSherry et al., 2002; Moberg, 2002; Sessanna et al., 2010; Zinnbauer et al., 1999). In response to the cultural shift of spirituality gaining increasing attention, many researchers are calling for refinement in the conceptualization of spirituality while taking into account that it may or may not relate to an organized religious belief system

(Frey et al., 2005; Hodge, 2002; King & Crowther, 2004; McSherry et al., 2002; Moberg 2002; Sessanna et al., 2010; Sifers et al., 2012; Webb, Toussaint, & Dula, 2014). Some researchers acknowledge the distinction between spirituality and religiosity; however, they warn against separation of the two constructs (George et al., 2000; Greenfield et al., 2009; Hill & Pargament, 2003; Zinnbauer et al., 1999).

Within the camp of researchers who acknowledge the distinction, yet support a combined construct of religiosity and spirituality, the general consensus is that religiosity and spirituality are interrelated but vary with regards to predictive qualities across health outcomes (Baumsteiger & Chenneville, 2015; Greenfield et al., 2009; Hill & Pargament, 2003; Jordan et al., 2011; Zinnbauer et al., 1999). Some warn against separating the two constructs, generally defining religiosity as an interpersonal construct that entails one holding a religious belief system and involves engagement in organized religious practices; whereas, spirituality is defined as more intrapersonal in nature and concerns one's feeling of connection with whatever they identify as transcendent and/or sacred (Ammerman, 2013; Baumsteiger & Chenneville, 2015; Greenfield et al., 2009; Hill & Pargament, 2003; Neff, 2008). The underlying argument against separating the two constructs is that individuals experience spirituality within institutionalized religious settings and that religiosity almost always entails spiritual pursuits (George et al., 2000; Hill & Pargament, 2003). Likewise, Koenig (2015) argues that separation of spirituality from religiosity is a deviation from the traditional definition that risks spirituality being defined as just about anything.

Researchers who support a more expansive conceptualization of spirituality support an underlying recognition that individuals who identify as spiritual may or may not participate in organized religion or possess religious and/or theistic beliefs (Frey et al., 2005; Hodge, 2002;

King & Crowther, 2004; McSherry et al., 2002; Moberg, 2002; Sessanna et al., 2010; Sifers et al., 2012; Webb et al., 2014). From this perspective, spirituality is considered to be a more expansive construct than religiosity (Berry, 2005; Monod et al., 2011). Outside of the acknowledgment that spirituality may or may not be connected with religious beliefs and/or practices, there is variation in the characteristics included in the conceptualization of spirituality, which results in inconsistencies in operationalization (Berry, 2005; Moberg, 2002). Moberg (2002) states that spirituality conceptualizations often fall within two categories, a “functional” camp that centers on how spirituality impacts individuals on an existential and personal level, and a “substantive” camp which focuses on transcendence (i.e., sacred and/or theistic-based beliefs and phenomena) (p. 48).

Regardless of which camp definitions fall into, one of the core issues of empirical research on spirituality relates to the variations in conceptualization. When exploring the various conceptualizations of spirituality, the complexity of spirituality becomes apparent. To examine the various facets of spirituality, it is important to understand the common themes within conceptualizations of spirituality. A common theme within spirituality conceptualizations is the centrality of sacred connection and/or search for something transcendent as identified by the individual within natural and/or supernatural realms (Ammerman, 2013; Baumsteiger & Chenneville, 2015; Berry, 2005; George et al., 2000; Greenfield et al., 2009; Hill & Pargament, 2003; Hodge, 2002; McSherry et al., 2002; Monod, 2011; Neff, 2008; Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005; Seidlitz et al., 2002; Webb et al., 2014; Zinnbauer, 1999). Spirituality is also frequently understood to be predominantly intrapersonal as it is often conceptualized as a central and internal motivating force that provides a sense of direction in life (i.e., providing a sense of meaning/purpose)

(Baumsteiger & Cheneville, 2015; Berry, 2005; George et al., 2000; Hill & Pargament, 2003; Jordan et al., 2011; Kneipp, Kelly, & Cyphers, 2009; McSherry et al., 2002; Monod et al., 2011; Neff, 2008; Piedmont, 2001; Sessanna et al., 2010; Sifers et al., 2012; Webb et al., 2014; Zinnbauer, 1999). Furthermore, some researchers identify an interpersonal component of spirituality alongside the intrapersonal foundation (Hill & Pargament, 2003). Additionally, most include a component of spiritual support and/or coping that may be either intrapersonal or interpersonal based on the presence of connection with the sacred (and/or sacred components in life), and the sense of direction that is perceived from the connection(s) (George et al., 2000; Hill & Pargament, 2003; Monod et al., 2011; Seidlitz et al., 2002; Sifers et al., 2012). Lastly, spiritual practices such as pursuit of virtues (i.e., humility, forgiveness, kindness, gratitude, etc.) (Baumsteiger & Cheneville, 2015; Greenfield et al., 2009; Hill & Pargament, 2003; Jordan et al., 2011; Zinnbauer, 1999) and meditation and/or prayer (Zinnbauer, 1999) are included within conceptualizations of spirituality. It is clear from the numerous characteristics contained within varying definitions of spirituality, that spirituality is a multifaceted construct with countless individual differences in expression. Despite the complex nature of spirituality, measurement thus far has approached spirituality from a unitary perspective that is often grounded in theism (Berry, 2005; Cotton, McGrady, & Rosenthal, 2010; Hill & Pargament, 2003; Idler et al., 2003; Monod et al., 2010; Neff, 2008), a shortcoming this line of research seeks to correct.

### **Theoretical Foundation and Conceptualization for Nontheistic Spirituality Measure.**

Two theories driving the conceptualization and development of this nontheistic spirituality measure are Pargament's (1999; 2013) view of spirituality as a motivation to search for sacred connection and Piedmont's (2001) concept of spiritual transcendence that entails acknowledgement of the transience of human life and motivates individuals to find meaning and

purpose. Both Pargament (1999; 2013) and Piedmont (2001) frame spirituality as a motivational trait and both acknowledge a search for sacred and/or transcendence (i.e., search for significance in one's life) that may or may not fall within the realms of theistic-based belief systems. Further, both theorists approach spirituality as a relatively stable trait that represents a lifelong process evolving over the lifespan (Pargament, 2013; Pargament & Mahoney, 2005; Piedmont, 2001; Piedmont & Wilkins, 2013).

Piedmont's (2001) theoretical framework of spiritual transcendence is foundational to the current measure in that spirituality is framed as motivational trait fundamental to the human experience that is highly individualized with regards to source and expression. The present conceptualization frames spirituality in such a way that search for meaning in life is one of many possible motivations for sacred connection. Pargament's (1999) theory provides the core conceptual component for the current measure in that spirituality entails a search for connection with the sacred, however that might be defined by the person. This theoretical framework extends spirituality and sacred matters beyond the traditional religious framework of God to a wider secular context (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). While Pargament acknowledges that both theistic and nontheistic individuals experience spiritual aspects of life, he asserts that spirituality entails secular components only by way of their association with divinity (i.e., sanctification) (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). Pargament (1999) firmly places his theoretical framework within the psychology of religion. The current measure deviates from Pargament's (1999; 2013) theoretical framework via expansion of sacred matters to nontheists specifically. Thus, in this context, sacred matters can entail things that are not associated with divineness of a deity or deities. Moreover, within sacred matters, the

motivation to pursue and maintain connection with the sacred is broken down into three key processes: discovery, conservation, and transformation (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). Discovery entails the following key components: increased personal investment in pursuing what is perceived to be sacred; emotions generated from perceiving the sacred; internal strength and gains in satisfaction from aspects of life that are perceived to be sacred; and deriving a guiding framework that provides a sense of meaning to other areas of life (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). Conservation is a motivational process that entails attempts to maintain and conserve connection with the sacred via spiritual pathways (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). These spiritual pathways can take on many forms, such as spiritual rituals/practices (e.g., music, prayer), relationships (e.g., social justice, religious involvement), spiritual experiences (e.g., meditative activities, nature experiences), and spiritual knowledge (e.g., reading material pertaining to sources of spirituality) (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005). Lastly, transformation is the process of evolving understanding of, and/or approach to, the sacred over the lifespan as a result of spiritual struggles (i.e., interpersonal struggles with others, intrapersonal struggles within, and/or struggles with the divine) (Pargament, 1999; Pargament, 2013; Pargament & Mahoney, 2002; Pargament & Mahoney, 2005).

Building upon the work of Pargament (1999; 2013) and Piedmont (2001), spirituality, at this stage of development for the purposes of the current measure, is conceptualized as a relatively stable motivational process entailing a search for, and connection with, the sacred. The current conceptualization approaches spirituality from a broad perspective. To be discussed in



chapter 6, at this stage of development, the instrument intends to measure general spirituality with the end goal of measuring nontheistic spirituality. Future validation studies will use both theistic and nontheistic samples to allow for in-depth analysis of item performance relative to respondents' designation of the source(s) (i.e., theistic or nontheistic) of their spirituality in order to refine measurement to nontheistic spirituality. Within the present conceptualization, the term "sacred" is understood to be highly individualized and is interpreted according to what the respondent identifies as transcendent and/or sacred in his/her life. Here, sacred and transcendent are understood to entail something that is perceived to transcend the individual and/or is identified as greater than the self. Therefore, sacred can take on a diverse number of meanings (e.g., nature, virtues such as hope or gratitude, life events such as birth or death, roles such as familial/parental or marital, aspects of culture such as art or music, other individuals such as leaders) and may or may not be based on belief in a deity or deities. Further, the current conceptualization of spirituality adopts Pargament's (1999) theoretical framework that the following three processes fuel and maintain search and connection with the sacred: discovery (i.e., motivation to discover what is sacred in one's life), conservation (i.e., motivation to conserve relationship with what is perceived to be sacred), and transformation (i.e., motivation to alter one's understanding of the sacred based on challenges in life). Therefore, nontheistic-based spirituality, for the purposes of this measure, is conceptualized as the degree to which one searches for, and connects with, whatever nontheistic object/aspect of life he/she perceives to be sacred. Search for, and connection with, the sacred are supported by the three key processes outlined above (i.e., discovery, conservation, and transformation). This conceptualization of spirituality extends Piedmont's (2001) framework by specifying the processes by which the motivation to find meaning in life are carried out thereby merging it with Pargament's (1999;

2013) theory. Further, as previously discussed in this section, this conceptualization of spirituality expands Pargament's (1999; 2013) theory via extension of the sacred to a wider secular framework that does not imply or necessitate association with divinity. This measure's conceptualization expands the concept of sacred beyond religious and/or theistic frameworks to a secular context. However, this expansion results in a narrowed nontheistic focus thereby excluding theistic-based aspects of spirituality.

Lastly, this measure is designed to tap into functional aspects (cognitive, behavioral, and affective) of the processes underlying the search for sacred connection. Spirituality is operationalized in such a way that items were designed to tap into the functional components (affective, behavioral, and cognitive) of the three processes (discovery, conservation, and transformation) underlying search for sacred connection. For the purposes of this measure, the affective component of spiritual expression is defined as the emotions and/or feelings one has about his/her spirituality and as a result of his/her spirituality/spiritual beliefs. The behavioral component of spiritual expression is defined as actions and/or behaviors performed as a result of and an extension of one's spirituality/spiritual beliefs. The cognitive component of spiritual expression represents one's beliefs and/or thoughts about his/her spirituality that result from his/her spirituality. This conceptualization of spirituality provided the framework for item development for the current measure.

### **Measurement of Spirituality**

This empirical framework requires a process of operationalization by which constructs can be measured reliably and validly. Operationalization is based upon conceptualization and informs measurement. While operationalization of any variable results in some loss of essence of the construct to be measured (Slife et al., 1999), the measurement of spirituality has experienced

a great deal of loss thus far due to crude measurement of a complex and multifaceted variable (Idler et al., 2003; Neff, 2008). In reviewing the literature, the following core issues regarding measurement of spirituality are cited (See Table 1): lack of theoretical foundation (Hill & Edwards, 2013; Hodge, 2002); use of primarily theistic measures which excludes individuals who do not believe in a deity (Berry, 2005; Hodge, 2002); measurement based in Judeo-Christian framework (Genia, 1997; Hill & Edwards, 2013; King & Crowther, 2004; Moberg, 2002; Powell et al., 2003; Seidlitz et al., 2002); combined construct of spirituality and religiosity (Daaleman & Frey, 2004; Sessana et al., 2010); measurement of a multifaceted construct via use of one broad item (Cotton et al., 2010; Idler et al., 2003; Jordan et al., 2011; Neff, 2008; Rosmarin et al., 2011); majority of spirituality measures are used as one of many predictors and are rarely treated as the outcome of interest, and thus are developed in such a way that it is difficult to functionally tie to health outcomes of interest (Hill & Pargament, 2003); measurement of spirituality as an added on supplemental dimension (i.e., ad hoc measurement) (Neff, 2008); less than half of the spirituality measures assess functional components (affective, behavioral, and cognitive dimensions) (Monod et al., 2011); and psychometric limitations (i.e., limited validation, particularly test-retest reliability, predictive validity, and/or convergent validity for existing measures) (Hill & Edwards, 2013; Monod et al., 2011). Furthermore, from a conceptual standpoint, Selman and colleagues (2011) cite the limitation of there being a discrepancy between the cultural perspective of spirituality as pluralistic and the way in which it is frequently measured as faith-based and within a Judeo-Christian framework.

While a number of spirituality measures exist, many possess the limitations discussed above. For the purposes of this review, attention will be directed to the primary strengths and weaknesses of the most frequently used and validated spirituality measures, which include the

following: The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) (Fetzer Institute/National Institute on Aging Working Group, 1999); The Spiritual Well-Being Scale (SWBS) (Paloutzian & Ellison, 1982); Spiritual Transcendence Index (Seidlitz et al., 2002); Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (FACIT-Sp) (Peterman, Fitchett, Brady, Hernandez, & Cella, 2002); World Health Organization’s Quality Of Life Instrument—WHOQoL—Spirituality, Religion and Personal Beliefs (WHOQoL-SRPB) (WHOQoL SRPB Group, 2006); Spirituality Index of Well-being (SIWB) (Daaleman & Frey, 2004); Ritualistic, Theistic, and Existential (RiTE) Measure of Spirituality (Webb et al., 2014); and Spiritual Transcendence Scale (Piedmont, 2002).

Table 1

*Examples of Spirituality Measurement Limitations*

Limitation	Source(s)
Lacking theoretical foundation	Hill & Edwards, 2013; Hodge, 2002
Theistic-based measurement	Berry, 2005; Hodge, 2002
Judeo-Christian biases	Genia, 1997; Hill & Edwards, 2013; King & Crowther, 2004; Moberg, 2002; Powell et al., 2003; Seidlitz et al., 2002; Selman et al., 2011
Merged religiosity/spirituality construct	Daaleman & Frey, 2004; Sessanna et al., 2010
Use of single item indices	Cotton et al., 2010; Idler et al., 2003; Jordan et al., 2011; Neff, 2008; Rosmarin et al., 2011
Mostly predictive measures (vs. outcome)	Hill & Pargament, 2003
Ad hoc measurement	Neff, 2008
Minimal representation of all functional domains	Monod et al., 2011
Limited validation	Hill & Edwards, 2013; Monod et al., 2011

**Brief Multidimensional Measure of Religiousness/Spirituality.** The BMMRS is a self-report measure consisting of 38 items with various response formats and internal consistency ranging from  $\alpha = 0.56$  to  $0.95$  (Fetzer Institute/National Institute on Aging Working Group, 1999; Monod et al., 2011). The main strength of the BMMRS is that it approaches measurement from a multidimensional framework; however, limitations for this measure include spirituality being measured as a combined construct in all subscales except one (Daily Spiritual Experiences Subscale), inconclusive findings regarding factor structure (i.e., factor analyses do not align with 10 theoretical categories that comprise the measure) (Hill & Edwards, 2013); and that it measures spirituality from a Judeo-Christian framework (Frey et al., 2005; Idler et al., 2003; Neff, 2008). Furthermore, there is debate as to whether the spirituality subscale (Daily Spirituality Experiences) within the BMMRS measures spirituality as a distinct or combined construct (i.e., spirituality as dependent/related aspect of religiosity) with religiosity (Einolf, 2011).

**Spiritual Well-Being Scale.** The SWBS is a self-report measure consisting of 20 items with 7-point Likert-type response scale and internal consistency of  $\alpha = 0.89$  (Paloutzian & Ellison, 1982; Monod et al., 2011). SWBS is a widely used measure consisting of two subscales (Religious Well-Being and Existential Well-Being) (Hill & Edwards, 2013; Paloutzian & Ellison, 1982). A strength of the SWBS is that it acknowledges both theistic-based spirituality (i.e., spiritual well-being associated with God) and existential spirituality (i.e., spiritual well-being associated with life satisfaction, meaning, and purpose) (Paloutzian & Ellison, 1982). Additionally, the SWBS has been shown to have high reliability (Hill & Edwards, 2013). However, limitations of this scale include the following: it measures spirituality from a religious well-being framework which limits use to religious populations (Daaleman & Frey, 2004); it has

ceiling effects (King & Crowther, 2004); and the Existential Well-Being subscale contains items that simply measure positive features of psychological well-being (i.e., meaning in life) which may inflate correlations with psychological health outcome measures (Hill & Edwards, 2013).

**Spiritual Transcendence Index.** The Spiritual Transcendence Index is a self-report measure consisting of 8 items with 6-point Likert-type response scale and internal consistency of  $\alpha = 0.97$  (Monod et al., 2011; Seidlitz et al., 2002). A strength of the Spiritual Transcendence Index is that it distinguishes spirituality from religiosity; however, it fails to measure behavioral components of spirituality (Seidlitz et al., 2002).

**Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale.** The FACIT-Sp is a self-report measure consisting of 12 items with 5-point Likert-type response scale and internal consistency ranging from  $\alpha = 0.86$  to  $0.87$  (Monod et al., 2011; Peterman et al., 2002). Strengths of the FACIT-Sp are that it is cross-culturally validated for use with medical patients and that it measures spiritual state from a multidimensional framework (Jordan et al., 2011; Monod et al., 2011; Selman et al., 2011). The FACIT-Sp has a subscale Meaning and Peace which designed to measure spirituality from a broader framework (i.e., independent from religious or spiritual affiliations); however, this scale fails to distinguish what meaning and purpose in life is related to (i.e., whether it is related to spiritual beliefs or something unrelated to spirituality) (Hill & Edwards, 2013). Similar to the Existential Well-Being subscale of the SWBS (Paloutzian & Ellison, 1982), one major weakness of the FACIT-Sp is that it measures spirituality within the psychological construct of well-being, thereby confounding the association between the predictor (spirituality) and outcome (health/well-being) variables when used in health-related research. Furthermore, an additional limitation of the FACIT-Sp, depending on the way in which the measure is used, is that it measures spiritual state (i.e., current state reflecting

current situation/circumstance) versus measuring a stable trait of spirituality (i.e., consistent degree of spirituality that is stable across time and circumstances) (Monod et al., 2011).

**World Health Organization's Quality of Life—Spirituality, Religion, and Personal Beliefs.** The WHOQoL SRPB is a self-report measure consisting of 32 items with a 5-point Likert-type response scale and internal consistency of  $\alpha = 0.91$  (Monod et al., 2011; WHOQoL SRPB Group, 2006). The WHOQoL SRPB is cross-culturally validated for specific use within a medical setting (Monod et al., 2011); however, respondents are prompted to answer items based on their religious, spiritual, and/or other beliefs with regards to quality of life which results in no distinction between constructs and complicates implications of which variables may be impacting quality of life.

**Spiritual Index of Well-Being.** The SIWB is a self-report measure consisting of 12 items with a 5-point Likert-type response scale and internal consistency ranging from  $\alpha = 0.87$  to  $0.91$  (Daaleman & Frey, 2004; Monod et al., 2011). Similar to the SWBS (Paloutzian & Ellison, 1982) and the FACIT-Sp (Peterman et al., 2002), a primary weakness of the SIWB is that the construct of spirituality is placed within the psychological dimension of well-being (e.g., self-efficacy and meaning/purpose in life) (Daaleman & Frey, 2004; Frey et al., 2005), which complicates interpretation of findings in health-related research that uses measures of psychological well-being that also assess similar facets of positive psychological well-being. As stated earlier, this would result in inflated correlations, as one would be correlating well-being with well-being. Furthermore, the SIWB measures spiritual state (i.e., temporary state typically related to current situation/circumstance) versus a stable construct of spirituality (i.e., enduring aspects of one's spiritual well-being) (Monod et al., 2011).

**Ritualistic, Theistic, and Existential (RiTE) Spirituality Measure.** The RiTE Spirituality Measure is a self-report measure consisting of 30 items with a 5-point Likert-type response scale and internal consistency of subscales ranging from  $\alpha = 0.91$  to 0.98 (Webb et al., 2014). The RiTE consists of three subscales: Ritualistic Spirituality, Theistic Spirituality, and Existential Spirituality (Webb et al., 2014). A core strength of the RiTE spirituality measure is its measurement of both theistic and nontheistic spirituality. A number of items do reference “deity or deities” within the Theistic Spirituality subscale. The instructions for the measure provide examples of deity/deities that extend beyond theism; however, the implication of theism to respondents may remain due to connotation. The RiTE conceptualization of spirituality acknowledges that an “optimal spirituality” represents a balance (in the form of respect of other dimensions) of ritualistic spirituality, theistic spirituality, and existential spirituality, such that one dimension is not dominating (Webb et al., 2014, p. 975). While this balanced view of spirituality may be applicable to many populations, it may not be suited for predominantly nontheistic populations.

**Spiritual Transcendence Scale.** The Spiritual Transcendence Scale (STS) is 24-item self-report measure that assess motivation to create meaning in life via search for sacred connection and employs a 5-point Likert-type response scale (Piedmont, 2001). The STS consists of three subscales: connectedness, universality, and prayer fulfillment (Piedmont, 2001). There is also a peer evaluation rater version of the STS (Piedmont, 2001). Internal consistency of subscales have been reported as follows: self-report version connectedness (.64), universality (.83), prayer fulfillment (.64), along with peer rater version connectedness (.72), universality (.91), and prayer fulfillment (.64) (Piedmont, 2001). Evidence of convergent validity has been found via comparison between self-report version and peer rating version of the STS (Hill &



Edwards, 2013). STS was designed based on an expansive framework for spirituality that allows use with both theistic and nontheistic populations (Piedmont & Wilkins, 2013). As with any broad measure of spirituality, one limitation of this measure relates to its specificity and sensitivity to various aspects of spirituality (Hill & Edwards, 2013).

### **Rationale for the Development of Current Spirituality Measure**

Given the limitations of existing measures and varied conceptualizations of spirituality, the rationale for creating a new measure is based on the aim to address the gaps in literature regarding nontheistic spirituality. Existing measures and research frequently place spirituality within a theistic framework, thereby limiting the ability to investigate spirituality (and its correlates) within nontheistic populations. This points to the need for measurement that is validated for use in nontheistic populations without contingency on a religious and/or theistic-based belief system(s). There is a need to reduce the discrepancy between existing measurement of spirituality (as primarily theistic or faith-based) and the current culture of pluralism and individualistic expressions of spirituality. The current measure was developed as an effort to begin to reduce this discrepancy, while maintaining strong theoretical grounding. Of those measures that assess nontheistic spirituality (e.g., Existential Well-Being Subscale of SWBS, RiTE Existential Spirituality subscale, STS), there are two overarching limitations: 1) nontheistic spirituality is situated within the framework of psychological well-being (i.e., SWBS, SIWB), and 2) existing measures are not designed to examine how spiritual expressions and/or experiences differ based on source(s) of spirituality (nontheistic vs. theistic). The current measure is designed to assess spiritual expressions and processes that may or may not be tied to religious belief systems (i.e., theistic-based and/or nontheistic-based religions), and extends outside of the framework of theistic-based belief systems, while still allowing for analysis of

how theists versus nontheists experience spirituality. At this point in development, the instrument will be used as a measure of general spirituality and the frame of reference item (see Appendix J) will be used to differentiate nontheistic versus theistic spirituality. Pilot testing with both populations (theistic and nontheistic) will allow for more focused analysis of item performance with respect to nontheistic versus theistic spirituality. Further, in response to increasing attention to spiritual dimensions in patient care within health-related fields and the need for spiritual assessment across theistic and nontheistic populations, the current measure is designed to be used in health-related fields. Further, with spiritual assessment cited as a requirement for various healthcare agencies and governing bodies, Pearce (2013) points to the need for assessment of functional aspects of spirituality. Therefore, items for this measure were designed to tap into functional aspects (i.e., cognitive, behavioral, and affective) of the processes (i.e., discovery, conservation, and transformation) underlying the search for sacred connection. The current spirituality measure was designed based on strong theoretical foundations (Pargament, 1999; Piedmont, 2001) and in response to the overview of existing literature pointing to limitations of existing measures and the gap in research on nontheistic spirituality.

## CHAPTER 3

### PHASE 1: MEASURE CHARACTERISTICS AND DEVELOPMENT OF ITEM POOL

Development of items for the current measure was grounded in Pargament's (1999; 2013) and Piedmont's (2001) conceptualizations of spirituality as a motivational trait. Specifically, items were developed to align with Pargament's (1999; 2013) construct of spirituality defined as sacred connection entailing three key processes (discovery, conservation, and transformation). However, as previously discussed in Chapter 2, the concept of sacred connection in this new instrument extends beyond theistic associations. In an effort to address the need for additional research regarding nontheistic spirituality, items for the current measure were developed from a nontheistic spirituality framework; therefore, careful attention was paid to verbiage to minimize theistic bias (e.g., reference to God, gods, Supreme Being). Lastly, in response to criticism of spirituality measures lacking attention to functional components (Monod et al., 2011; Pearce, 2013), the pool of items developed for this measure incorporate the three recommended functional components (e.g., cognitive, behavioral, and affective).

#### **Table of Specifications**

To ensure that all three spiritual processes are represented within items that make up the completed measure, a Table of Specifications (TOS) was developed prior to item development (see Table 2). Table 2 represents the TOS breakdown for the targeted spirituality measure once measure development is complete. The aim of this measure is to assess the three processes within spirituality as a unidimensional construct. There is no intention for these areas of spirituality to be subscales. The three processes are included in the TOS to ensure that core aspects of Pargament's (1999; 2013) theory of spirituality are represented in this measure. Further, as previously mentioned, the current measure aims to address three functional components of

spirituality (affective, behavioral, and cognitive); therefore, the completed measure will incorporate each of the functional components within the spiritual processes outlined in Table 2.

Table 2

*Table of Specifications for the Targeted Measure*

Classification	Percentage of Items
Spiritual Process	
Discovery	33.3
Conservation	33.3
Transformation	33.3
Functional Component	
Affective	33.3
Behavioral	33.3
Cognitive	33.3

It is expected that several items will address more than one functional component of spirituality; however, the aim is to have relatively equal representation for each functional component within the completed measure, as none have been shown to be more or less important to overall spirituality. For the same reason, equal representation of key spiritual processes adopted from Pargament (1999; 2013) is sought. This attention to item representation will directly address cited criticisms of existing spirituality measures.

### **Characteristics of Measure**

In addition to ensuring content representation based on theoretical framework, items were developed according to technical characteristics, specifically item response format. The first item on this measure is a checkbox item that asks respondents to indicate what they will use as the source of their spirituality as they answer questions for the survey (“Using the list below, please tell how you would describe yourself in terms of spirituality. That is, which of the following **best**

describes you in terms of spirituality?”). For this item, respondents will be able to choose one of the following options: I do not seek spiritual connection, I seek spiritual connection from nature, I seek spiritual connection from Mother Earth, I seek spiritual connection from multiple gods, I seek spiritual connection from a general supreme being, I seek spiritual connection from the God of the Christian Bible, I seek spiritual connection from Allah, I seek spiritual connection from Buddha, I seek spiritual connection from the universe, I seek spiritual connection from humanity, I seek spiritual connection from having an awareness of meaning/purpose in life, I seek spiritual connection from many things, and I seek spiritual connection from something other than what is listed above (with a space for them to specify) (See Appendix J for item format). The purpose of including this item is to provide a frame of reference regarding each individual’s source of spirituality when analyzing data during future validation testing of the measure. Having information on respondents’ frames of reference will allow comparison between nontheistic and theistic participants, which will help refine the measure during future iterations. Additionally, on the completed measure there will be approximately 15 to 18 items (5 to 7 items per spiritual process within conceptualization; 5 to 7 within each functional component) with a forced choice 4-point Likert scale response format. The target measure will contain no more than 20 items in an effort to remain brief, as brief instruments are more suitable for health research than are long ones. Anchors for the 4-point Likert response scales will vary according to the structure and content of each item stem (e.g., strongly disagree to strongly agree; not true of me to very true of me; never to always). Respondents will also have the choice to select from two other checkboxes: “Does not apply” or “I do not understand the question.” Inclusion of a not applicable response gives the option for respondents to indicate lack of connection with the item stem. This is particularly important for respondents who may not identify with various aspects of

spirituality. Further, the targeted measure will include both positively and negatively worded items to minimize occurrence of response bias among respondents.

Respondents will be given detailed instructions as to how to respond to the items in this measure. The instructions for the measure will provide respondents a frame of reference for interpreting and responding to items. Wording of the instructions is as follows: “This survey is supposed to tell how spiritual you are. For this survey, spirituality is defined as how much you search for, and whether you connect with, something you think is sacred. Sacred means things in your life that you think are greater than you are. So, sacred can mean different things to different people. Something sacred could be (nature, God, gods, a Higher Power, humanity, arts, being a parent or partner or friend, having such virtues as hope or love, etc.). The words ‘sacred’ and ‘spiritual presence’ mean wherever your spirituality comes from based on your own beliefs. This may or may not be tied to a religion or whether you believe in a god or gods. The words “spiritual practices” means things you do to connect with those things you think are sacred. This may include: meditation, prayer, worship, or other things that help you connect with whatever you think is sacred. Please read each item carefully and answer what you are usually like spiritually.”

### **Initial Item Development**

Following Reynolds and Livingston’s (2012) recommendation to develop three times the number of items desired for the final measure, a pool of 65 items were developed and/or modified from previously validated measures. The initial item pool was approximately 3.6x larger than intended length of the final measure (i.e., 18 items). Items were developed according to the conceptualization of spirituality and specified TOS. The pool of items is comprised of both positively and negatively worded items. Twenty-eight of the 65 items were modified from

previously validated measures, and the remaining 37 items were created by the scale developer. Selection of items from previously validated measures and creation of new items began with a review of literature on conceptualization and measurement of spirituality, as well as research literature regarding spirituality and health outcomes. All items were developed and/or modified to reflect the conceptual definition of spirituality for this measure via alignment with three key spiritual processes (i.e., discovery, conservation, and transformation) outlined in the TOS, as well as functional components of spirituality. Further, based on the nontheistic focus of this conceptualization of spirituality, careful attention was paid to wording within item stems to reduce potential theistic bias (i.e., reference to God, gods, a Higher Power are avoided).

Choice of existing measures for item selection was based on research literature, in that items were selected from existing spirituality measures that are frequently cited in research literature. Items selected from other measures were modified according to the conceptualization of spirituality outlined in Chapter 2. The 28 modified items were obtained from the following measures: Spiritual Transcendence Index (3 items), RiTE Spirituality Measure (5 items), Intrinsic Spirituality Scale (2 items), Spiritual Experience Index-Revised (3 items from Spiritual Support subscale), WHOQoL SRPB (5 items), and BMMRS (10 items) (see Table A1). Modifications to the items obtained from the Spiritual Transcendence Index include the following: revision of response format to align with 4-point Likert scale, removal of reference to “God” in an item stem, and modification to item stem wording to align more closely with the stated conceptualization of spirituality for this measure. Items obtained from the RiTE Spirituality measure were modified in the following manner: removal of reference to “deity or deities” in item stems to reduce theistic-based verbiage, revision of response format to 4-point Likert scale, and revision of item stem wording to align more closely with measurement of

functional components of spirituality (e.g., inclusion of phrase “I believe”). The two items obtained from the Intrinsic Spirituality Scale were modified by changing the response format and structure of item stem to align with the 4-point Likert scale, and minor revision of item stem wording to align with functional components of spirituality. Three items were obtained from the Spiritual Support subscale of the Spiritual Experience Index-Revised and were modified in the following manner: modification of response format to match a 4-point Likert scale, and revision of wording to align more closely and specifically with sacred connection conceptualization of spirituality (e.g., replaced the word “related” with “connection”). Likewise, the following modifications were made to items obtained from the WHOQoL SRPB: revision of item stem and response format to align with 4-point Likert scale, revision to specific verbiage in the item stems (e.g., replaced the phrase “personal beliefs” with “connection with the sacred”; replaced “faith” with “spirituality” to minimize potential religious bias in verbiage) to increase specificity of belief and align more closely with conceptualization of spirituality, and revision of item stem wording to include the phrase “I believe” to align with cognitive component of spirituality. Lastly, ten items were obtained from the following subscales of the BMMRS: Daily Spiritual Experience (2 items), Private Religious Practices (2 items), Religious/Spiritual Coping (3 items), Commitment (1 item), and Meaning Appendix (2 items). Modifications to the items obtained from the BMMRS were as follows: removal of all references to a theistic and/or religious belief system in item stems (e.g., “God”, “religious beliefs”, “religious tradition”, “religiosity”) and replacement with verbiage that aligns with conceptualization of spirituality (i.e., “source of spirituality”, “spiritual beliefs”, “spiritual tradition”, “spirituality”), revision of response format and item stem structure to match the 4-point Likert scale, and addition of phrase “I believe” to an



item stem to align with cognitive component of spirituality. A detailed breakdown of modifications and rationale for each modification to all 39 items is provided in Table A1.

Once items were selected and modified from existing measures, 37 additional items were created to align with the TOS and existing research literature forming the initial pool of 65 items. Once the initial pool of items was created, items were classified by the scale developer based on spiritual process (discovery, conservation, and transformation) and functional components of spirituality (affective, cognitive, and behavioral). See Appendix A for initial item pool and classifications. A number of items are relevant to more than one spiritual process (as well as more than one functional component); however, item classifications were made based on determination of the most relevant fit within the TOS.

## CHAPTER 4

### PHASE 2: INTERNAL REVIEW

Upon development of a pool of items and initial classification by the scale developer, examination of content validity took place to ensure that modified items and items developed by the scale developer accurately reflected nontheistic spirituality as it is conceptualized for the purposes of the current measure. Content validation at this stage of instrument development was a structured and iterative process that consisted of the following steps: 1) selection of qualified content-specific experts (internal and external to East Tennessee State University), 2) structured internal review, 3) analysis of data from internal review and subsequent item revisions, 4) structured external review (see Chapter 5: Phase 3), and 5) analysis of data from external review and subsequent item revisions (see Chapter 5: Phase 3). This procedure follows recommendations of Crocker and Algina (1986) for content validation via clear conceptualization of construct, utilization of reviewers with content-domain expertise, structured evaluation of congruence between construct and items developed, and collection and analysis of data from the review process. The purpose of content validation through internal and external review procedures was twofold: evaluation of the quality of each item and evaluation of congruence between items and spirituality construct as specified within the TOS independent of input from the scale developer. Evaluation of item quality and construct representation are foundational to the development of a sound instrument and are the foundation of the systematic and iterative nature of instrument development.

#### **Participants**

The scale developer asked two content-specific experts at East Tennessee State University to complete an internal review of items. These individuals have expertise in the areas

of instrument development and religiosity/spirituality research. The internal review of the item pool took place by the following two content-specific experts: Andrea D. Clements, Ph.D. (Professor of Experimental Psychology and Assistant Chair, East Tennessee State University) and Jon R. Webb, Ph.D. (Associate Professor of Clinical Psychology, East Tennessee State University). Reviewers received no compensation for their participation.

## **Procedures**

Upon agreement to participate in the internal review, reviewers were sent a Word document outlining key theoretical concepts, measure characteristics, a conceptual definition of spirituality, and instructions for the internal review (see Appendix B). The internal review consisted of two procedures. The first procedure entailed item categorization, in which expert reviewers independently identified which spiritual process (discovery, conservation, or transformation) and which functional component (affective, cognitive, or behavioral) each item aligned with most closely. The purpose of this procedure was to ensure that each process and functional component was represented and that items were representative of the overall spirituality construct as defined for the purposes of this measure. The second procedure consisted of quality ratings for each item. Expert reviewers provided two quality ratings ranging from 1 to 4 (1= *poor quality*, 2= *fair quality*, 3= *good quality*, and 4= *excellent quality*) for each item based on the two identified areas: content and form. Content quality rating procedure is a modification of a process developed by Hambleton (1980) to assess degree of match between an item and a specified construct. Therefore, the content quality rating assessed appropriateness of items with regard to match with spirituality construct. Form quality ratings followed the same procedure (modified procedure from Hambleton, 1980) and assessed the readability of each item with regards to clarity and targeted reading level (8<sup>th</sup> grade reading level). For quality ratings of two

or below (items rated as poor or fair), reviewers were asked to provide qualitative feedback on the weakness of the items and suggested improvements. Reviewers completed their review of the items independently via a structured Excel spreadsheet.

## **Results**

Data were collected via Excel. Data analyses were conducted using Excel, SPSS, and R. Descriptive statistics for the structured quality ratings (i.e., form and content) of each item are provided in Table D1. Following recommendations from Crocker and Algina (1986) for summarizing results from the present method of content validation, mean content ratings (see Table D1) were reported as an index of item-objective congruence, as well as percentage of items with high ratings (as follows). Out of 65 items, 57 items had a mean form rating of  $\geq 3$ , and 64 had a mean content rating of  $\geq 3$  (3 = *good quality*; 4 = *excellent quality*). Therefore, based on mean ratings, 88% of the items had mean ratings indicating good item quality with regards to readability and 98% had mean ratings indicating good quality with regards to alignment with the overall spirituality construct. The overall item means across reviewers for structured ratings indicated good item quality (content:  $M = 3.77$ ; form:  $M = 3.315$ ).

Additionally, interrater reliability analyses were performed to assess the degree of agreement between raters. Cohen's kappa was run to determine the level of agreement between the two internal reviewers' ratings on categorical item classifications (i.e., spiritual processes and functional domains). Based on Landis and Koch (1977) guidelines for interpreting Cohen's kappa, there was substantial agreement between the two internal reviewers' classifications of items within the three functional domains (i.e., affective, behavioral, and cognitive),  $\kappa = .618$  (95% CI, .455 to .781),  $p < .001$ . However, based on the aforementioned guidelines, there was only fair agreement between the reviewers' classification of items within the three spiritual

process (i.e., discovery, conservation, and transformation),  $\kappa = .319$  (95% CI, .156 to .482),  $p < .001$ . Weighted kappa coefficients were computed for level of agreement between the two internal reviewers on quantitative ratings (i.e., form and content ratings). Based on weighted kappa analysis conducted in R, there is poor agreement between internal reviewers with regards to item form (item stem readability),  $\kappa_w = -.09$  (95% CI, -0.35 to 0.17), *ns*. Weighted kappa analysis also demonstrated poor agreement between internal reviewers on item content (degree of match with present spirituality conceptualization),  $\kappa_w = -.008$  (95% CI, -0.18 to 0.16), *ns*. Low agreement between raters for item content ( $\kappa_w = -.008$ ) and item form ( $\kappa_w = -.09$ ) may be a result of psychometric properties of the chosen scale (4-point Likert). Low agreement may also be a result of range restriction within reviewers' ratings. Based on frequency of item ratings, 98.5% of items were rated as 3 or 4 for content; 81% of items were rated as 3 or 4 for form. Nonetheless, the low interrater reliability estimates signify a need for continued examination of content validity of items within the item pool.

Lastly, two themes emerged in the qualitative feedback portions of the internal review: 1) reading level of terminology, and 2) abstract and/or verbose items. Approximately 86% of the qualitative feedback received centered on the reading level of terminology used in the item stems. The remaining 14% of the qualitative feedback expressed concerns that items were either too abstract or too wordy resulting in ambiguity and/or awkward wording. Both quantitative and qualitative feedback guided subsequent item revisions.

### **Item Revisions**

Upon receiving feedback from internal expert reviewers, items receiving mean content and/or form quality ratings of 2.5 or lower were deleted. As a result, 8 items were deleted from the item pool based on mean ratings that fell at or below 2.5. Two additional items were deleted,

one of which due to inability to reduce reading level without changing what the item was assessing, and the other due to presence of double barreled concept within item stem. All remaining items were revised according to qualitative feedback received (See Table C1). The majority of qualitative feedback focused on concerns with reading level of terms within item stems; however, reviewers also noted items stems that were too abstract and/or too wordy. Based on the qualitative feedback received, 25 of the remaining 55 items were revised in order to enhance readability and decrease ambiguity of the item stems. See Table C1 for detailed information on qualitative feedback received, subsequent item revisions, and rationale for each revision. Lastly, items were classified within one spiritual process and one functional domain based on categorization feedback from both internal reviewers. If there was disagreement between the two external reviewers on categorization within functional domain and/or spiritual process, and if the initial classification completed by the scale developer prior to the internal review matched with one of the internal reviewers, then classification was based upon majority rule. After item deletion and item revisions, the item pool consisted of 55 items (see Appendix C for item classifications).

## CHAPTER 5

### PHASE 3: EXTERNAL REVIEW

The third phase of instrument development was an external review. Content validation continued at this stage via a structured external review of the existing item pool. The aim for the external review was to build a panel of professionals from diverse backgrounds (namely, healthcare, measurement, spiritual leadership, health research, and spirituality research) to evaluate items on the basis of congruence with overall spirituality construct and content area (i.e., three specified spiritual processes), as well as readability. This procedure, again, followed recommendations of Crocker and Algina (1986) for content validation. The purpose of content validation through the external review procedures was to continue assessment of construct representation and refinement of items.

#### **Participants**

Upon revision of items following the internal review, a panel of experts not affiliated with East Tennessee State University were recruited to complete a structured review of the pool of items (55 items total). Potential expert panel members were selected based on professional experience and/or areas of expertise. Recruitment of panel members was a combination of convenience and snowball methods. The scale developer solicited recommendations for potential expert reviewers from internal reviewers, former colleagues, and listings of spirituality and religiosity researchers affiliated with the Society of Behavioral Medicine. Potential panel members were contacted via email (see Appendix E for recruitment email) to invite them to participate in this stage of item development. The scale developer emailed a total of 29 professional contacts from the following areas of expertise: healthcare (mental health and physical health providers), health research (mental and physical health), measurement, spiritual

leadership/care, and spirituality research. Of the 29 experts who were contacted, 9 did not respond, 10 agreed to complete the review of items, 8 declined, and 2 expressed interest but responded after the deadline for completion had passed. The following experts agreed to participate in the external review: Rev. Kelly L. Belcher, MDiv, Andrea L. Canada, Ph.D., Natalie Cyphers, Ph.D., RN, CPN, FCN, Derek Hogan, Ph.D., Kevin S. Masters, Ph.D., Amanda Parmley, M.A., LPCA, Laura Roach, LPCA, M.Div, Missy Stancil, M.A., LPCA, Jutta Street, Ph.D., and Chama Woydak, LCCE, CD(DONA), BDT(DONA). This panel of experts consisted of members who possessed expertise in the following areas: instrument development, spirituality research, spiritual issues/spiritual development (i.e., chaplains and theologians), health issues/treatment (i.e., mental and physical health providers), and health research (see Table 3 for representation of expertise).

Table 3

*External Review Panel: Areas of Expertise*

Area of Expertise	Frequency
Mental Health	5
Physical Health	1
Health Research	2
Spiritual Leadership/Support	5
Spirituality Research	3
Instrument Development	3

*Note.* Several reviewers indicated more than one area of expertise.

Potential conflicts of interests should be addressed with regards to external reviewers. The scale developer has dual relationships with three of the external reviewers. One of which was a former professor and academic mentor who was chosen based on measurement expertise outside of the realm of religiosity and spirituality measurement. The remaining two reviewers were former colleagues and classmates of the scale developer who were chosen based on



expertise in mental health treatment and faith integrated therapy. The selection of said reviewers was based on their aforementioned areas of professional expertise. To minimize potential bias, anonymity was built into the external review process. Reviewers received no compensation.

## **Procedures**

Upon agreement to participate in the external review, reviewers were sent a PDF with detailed instructions of the review procedure, key definitions of spiritual processes, a conceptual definition of spirituality, and measure characteristics (see Appendix E for reviewer information sheet). The external review was completed anonymously and took place electronically via REDCap (see Appendix E for format of REDCap survey). Reviewers were granted access to the external review via an email invitation with a public REDCap link (see Appendix E for access email). The external review consisted of the following procedures: expert panel members 1) indicated their area(s) of expertise, 2) completed 3 ratings for each item (quality of item form; quality of content match with present spirituality conceptualization; and degree of match between item and specified spiritual process), 4) indicated whether the item seemed biased, and 5) offered summative qualitative feedback.

Reviewers indicated area(s) of expertise via a structure checkbox in which they could mark more than one area; options included the following: mental health, physical health, health research, spiritual leadership/support, spirituality research, instrument development, and other. Following the same method as the internal review, the first procedure consisted of evaluating of quality of each item. Reviewers provided two quality ratings ranging from 1 to 4 (1= *poor quality*, 2= *fair quality*, 3= *good quality*, and 4= *excellent quality*) for each item based on two areas: content and form. Content quality rating procedure was, again, a modification of a process developed by Hambleton (1980) to assess degree of match between an item and a specified

construct. Therefore, the content quality rating assessed appropriateness of items with regards to match with overall spirituality construct. Form quality ratings followed the same procedure and assessed the readability of item with regards to clarity and targeted reading level (8<sup>th</sup> grade reading level). For quality ratings two or below (items rated as poor or fair), reviewers were asked to provide qualitative feedback on weakness of the items and suggested improvements. The purpose of the quality ratings was to assess alignment of item content with the overall spirituality construct based on the provided conceptualization of spirituality, as well as assess appropriateness of items for the targeted population.

The second rating procedure consisted of reviewers identifying degree of match between each item and the specified spiritual process (i.e., discovery, conservation, and transformation) using a 4-point scale anchored by the following: 1= *poor match*, 2= *fair match*, 3= *good match*, 4= *excellent match*. The degree of match procedure was a modification of a process developed by Hambleton (1980) to assess degree of match between an item and a specified construct. This procedure was used to assess how well each item aligns with the content of a specified spiritual process (reference Table 2 for three key spiritual processes). Furthermore, reviewers were asked to indicate potential item bias (via a checkbox) for each item. If reviewers indicated item bias, they were asked to explain. Lastly, reviewers were asked to identify any important constructs that were left out of the item pool via an open-ended question.

## **Results**

Data were collected electronically and anonymously via REDCap. Data analysis was conducted using Excel and SPSS. Descriptive statistics for quality ratings (i.e., form and content) and degree of match ratings for each item are provided in Table G1. As with the internal review, summarization of results follows Crocker and Algina's (1986) recommendation to report an

index of item-objective congruence, as well as percentage of items with high ratings. Mean ratings were calculated as an index of item-objective congruence for each item to assess match between the content of individual items and the present spirituality conceptualization (see Table G1). Further, based on mean ratings of  $\geq 3$  (3 = *good quality* and 4 = *excellent quality*), 95% (52 items) of the items possessed at least good quality with regards to readability (form ratings), 100% (55 items) possessed at least good quality with regards to alignment with the overall spirituality construct, and 95% (52 items) of the items demonstrated a good match with the specified spiritual process (i.e., discovery, conservation, and transformation). The overall item means across reviewers for structured ratings indicated good item quality (content:  $M = 3.53$ ,  $SD = 0.65$ ; form:  $M = 3.34$ ,  $SD = 0.72$ ; degree of match:  $M = 3.53$ ,  $SD = 0.69$ ).

Additionally, intraclass correlation coefficients (ICC) were calculated using SPSS to examine interrater agreement among the 10 expert reviewers. Cohen's  $\kappa$  is designed to analyze interrater agreement between two raters on categorical data; whereas, ICC is designed to analyze interrater agreement when there are 2+ raters of quantitative data. Therefore, ICC estimates were used to examine interrater agreement for the external review. Based on Shrout and Fleiss' (1979) guidelines for determining appropriate ICC model, two-way random effects models with absolute agreement were used to analyze mean-ratings ( $k = 10$ ) for all three quantitative ratings (i.e., form, content, and degree of match) completed by external reviewers. See Table 4 for ICC estimates of interrater agreement. Resulting ICCs for both form (ICC = .14) and content ratings (ICC = .29) fell within poor range for interrater agreement; while, degree of match ratings for spiritual process classification (ICC = .41) was in the fair range (Cicchetti, 1994). Therefore, ICC coefficients indicate low levels of absolute agreement, suggesting variability across reviewers and supporting need for further examination of content validity.

Table 4

*External Review Interrater Agreement Estimates ICC (2, 10)*

Type of Rating	Interclass Correlation	95% CI		F Test			
		<i>LL</i>	<i>UL</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Form Quality	.136	-.193	.418	1.179	54	486	.189
Content Quality	.286	.026	.515	1.505	53	477	.015
Spiritual Process Degree of Match	.412	.165	.616	1.783	51	459	.001

As discussed in chapter 4, range restriction may be largely responsible for poor to fair levels of interrater agreement for the external review as well. Based on frequency of item ratings, 91% were rated as 3 (*good quality*) or 4 (*excellent quality*) for item form, 94% were rated as 3 (*good quality*) or 4 (*excellent quality*) for item content, and 92% were rated as 3 (*good match*) or 4 (*excellent match*) for degree of match with specified spiritual process. With sets of item ratings limited to mostly 3's and 4's on the specified psychometric scale, interrater reliability estimates may be lowered due to restriction of range.

Alongside of the quantitative feedback, reviewers provided qualitative feedback on any items that were given a rating of  $\leq 2$  (2 = *fair* and 1 = *poor*). Five themes emerged within the feedback provided. The five qualitative themes were as follows: 1) item is too broad, 2) item fails to address temporal aspects, 3) theistic/religious underpinnings in language of item stem, 4) loose alignment with overall spirituality construct and/or overlap among spiritual process content areas, and 5) wording. Approximately 49% of reviewers' comments centered on wording concerns and clear writing (e.g., choice of word/phrase, removal of leading phrases, more concise writing). Twenty-six percent of the comments centered on content match concerns (e.g., double loading of spiritual processes). Further, 11.5% expressed concerns that certain items were

too broad and/or ambiguous. Approximately 7% of concerns indicated potential theistic and/or religious language that may bias responses. Approximately 2.6% of the comments focused on the need to provide a temporal reference (i.e., trait vs. state) within the item to increase specificity. The remaining 4% of comments were related to concerns about reading level (1.8%), hyphenation of a word (<1%), repetition of an item (<1%), and (<1%) expressing confusion about why an item regarding doubt was part of the measure. In response to the summative question regarding any important aspects that were left out, the following feedback was given: one reviewer indicated that very few items addressed spiritual aspects of social relationships within community of shared beliefs; one reviewer expressed concern with overall reading level; and one reviewer stated that while items work well for the ‘spiritual but not religious’ populations, the exclusive use of spirituality verbiage may confound results if used with individuals who identify as more religious than spiritual, or equally religious and spiritual. All qualitative feedback and quantitative results provided the foundation for continued refinement of the existing items.

### **Item Revisions**

Upon receiving ratings and qualitative feedback from internal expert reviewers, items receiving mean content and/or form quality ratings less than 3.0 were deleted (as this indicated an average rating of poor quality). Based on quantitative and qualitative feedback from the external review, 10 items were deleted. Items were deleted for the following reasons: five items had content and/or form mean ratings that fell below 3.0; three items were deleted due to redundancy with other items in the item pool according to qualitative feedback; one item was deleted due to multiple expressed concerns about the intensity of verbiage (i.e., the word ‘force’ in the following item: “I feel strongly connected to a force outside of myself”); and lastly, one

item received qualitative feedback that it was vague and only loosely associated with conceptualization of spirituality. After deleting 10 items, the item pool consisted of 45 items. See Table 5 for a breakdown of classifications in the final item pool.

Table 5

*Representation of Classifications in Final Item Pool*

Classification	Percentage of Items
Spiritual Process	
Discovery	33.3
Conservation	33.3
Transformation	33.3
Functional Component	
Affective	37.8
Behavioral	22.2
Cognitive	40.0

*Note.* Several items overlap content areas and may represent more than one spiritual process. Likewise, several items overlap functional domains and may represent more than one functional component.

After eliminating 10 items, the reading level of all remaining items (45 items) were individually analyzed using Microsoft Word Flesch-Kincaid Grade Level readability statistics. Thirty of the remaining 45 items were revised based on meeting the set standard of  $\leq 8^{\text{th}}$  grade reading level and in response to the aforementioned themes within the qualitative feedback (see table F1 for revision details). Lastly, after multiple revisions to items across the two phases of content validation, response anchors were examined by the scale developer to determine appropriateness (e.g., ensuring response anchors aligned with item format, such as using frequency scales for items assessing how often a respondent engages in a behavior or activity). Refer to Table F1 for detailed information on qualitative feedback from reviewers, item revisions, response anchor revisions, and rationale for each revision. See Table I1 for classification, reading level, and response anchors of items in the final item pool.

## CHAPTER 6

### DISCUSSION

The conceptualization of spirituality under investigation expands the concept of sacred to a nontheistic framework, extending sacred matters beyond divine association, while maintaining strong theoretical grounding. This conceptualization builds on existing theory and expands it to a wider secular context with the aim of increasing understanding of nontheistic spirituality. A 65-item pool was developed based this expansive spirituality construct, wherein item content focused on three key spiritual processes (i.e., discovery, conservation, and transformation) underlying the motivation to search for sacred connection. Through a series of review procedures by content-specific experts (e.g., religiosity/spirituality researchers, chaplains, theologian), measurement experts (e.g., psychological measurement faculty, research faculty), and practitioners (e.g., healthcare providers, chaplains, counselors), preliminary evidence of content validity was established via indices of item-objective congruence (i.e., mean ratings) between items and the present spirituality conceptualization.

The initial 65-item pool went through two phases of item revisions based on mean ratings of item form, content, and degree of match with spirituality conceptualization. This process resulted in an item pool of 45 items. Mean ratings for each item across reviewers suggested suitable levels of congruence between items and the present spirituality conceptualization; however, interrater reliability analyses suggested poor agreement among and between raters. Results of interrater analyses took into account chance agreement and indicated low levels of agreement beyond that of chance. Poor agreement between and among reviewers indicates a need for continued examination of content validity. The cause for low levels of agreement among reviewers may be a result of range restriction due to a ceiling effect (most ratings were

high) resulting in little variability among subjects; however, it may also point to the inherent challenges of operationalizing a construct with little conceptual agreement.

## **Implications**

The broad approach to spirituality measurement has the potential to provide a more comprehensive understanding of spirituality that reaches beyond the realm of theistic-based spirituality. The well-established relationships between health and spirituality and increased attention to spiritual dimensions of healthcare, coupled with limited measurement of spirituality outside of theistic-based belief systems point to a need for a fuller understanding of spirituality within nontheistic populations. The present conceptualization represents an extension of established theory and provides an opportunity to examine how well Pargament's (1999; 2013) theoretical model of spirituality tests this broader conceptualization of spirituality. The current measure was designed to address previously cited limitations of existing measures (via the following characteristics: nontheistic framework, theoretical grounding, exclusion of theistic and religious references in item stems, inclusion of functional domains, and avoidance of situating spirituality predominantly within positive psychological characteristics of well-being). With continued item revision and validation, the targeted measure may help fill the gap in existing literature on nontheistic spirituality and its health correlates.

It is recognized that the new spirituality measure will not be the quintessential measure. As with every measure, there are advantages and disadvantages. While the targeted measure is in the early phases of development, it has a number of foundational strengths. Measurement of nontheistic-based sacred connection represents an important step towards addressing the current gap in spirituality research. The targeted measure responds to the call for a theoretically grounded spirituality measure that can be used with nontheistic populations (Hill & Edwards,



2013; MacDonald, 2000; Pargament & Mahoney, 2002; Sessana et al., 2010; Vachon, 2008). Moreover, inclusion of all three functional aspects of spirituality has the potential to produce a more balanced measure with regards to assessment of the functional nature of nontheistic spirituality. Finally, including an item that asks respondents to indicate their frame of reference (i.e., the source of their spirituality) is a novel concept in this line of research. This type of item should prove useful during pilot testing, as it will allow for a more focused analysis of nontheistic-based spirituality and allow for comparisons between answers of theistic and nontheistic respondents.

### **Limitations and Future Directions**

While there is potential for more focused examination of nontheistic spirituality, a major limitation of this measure relates to its scope. Inherent within broad measures is the risk of decreased cultural sensitivity (i.e., limited sensitivity to differences across belief systems). Additionally, removing the theistic bounds of spirituality leaves the potential for spirituality to be defined by any number of secular constructs, including positive psychological characteristics (e.g., meaning in life). This becomes problematic when such measures are used as predictive measures with psychological health outcomes, as it has the potential to inflate the degree of relationship. Further, inherent within self-report measures are limitations related to response set, and social desirability bias (Hill & Pargament, 2003). The current measure is designed to minimize response set issues by including both positively and negatively coded items; however, social desirability will need to be addressed during pilot testing via analysis of divergent validity with measures of socially desirable responding. Furthermore, given the complex nature of spirituality, continued refinement in conceptualization and measurement will be essential. Operationalizing spirituality into items with 8<sup>th</sup> grade or below reading level is challenging given

the nature of such a construct. Within the iterative process of measure development, continued item revision and refinement will be needed in order to achieve a balance between readability and construct representation. The current measure is in its infancy; however, this study provides evidence of a solid foundation for continued refinement, revision, and validation of items. At this stage of instrument development, the measure has been developed with a nontheistic framework but is designed to be used with both theistic and nontheistic populations. Using the measure with both populations will allow for focused analysis of potential differences between self-identified theists versus nontheists' with regards to spirituality. Focused analysis of these differences will be possible via use of the frame of reference question discussed in chapter 3 (see Appendix J). Analysis of item performance relative to group identity (theistic vs. nontheistic) will facilitate a more informed item and measure refinement process.

Future directions include the following: pilot testing the 45-item pool with diverse populations (including theistic and nontheistic populations) and in diverse healthcare settings; examination of convergent validity with other spirituality measures that have nontheistic dimensions and divergent validity with one or more social desirability scales; test-retest reliability to examine the capacity of the measure to assess spirituality over time as a trait; and factor analytic procedures to examine how items load relative to one or more potential factor structures.

## **Conclusion**

Spirituality is gaining attention across disciplines and the importance of sound ethical research using well-validated measures is crucial to examining the role of spirituality across disciplines. Within this, ongoing refinement of measurement approaches is needed in order to fill the existing gap in literature on nontheistic-based spirituality and to gain a fuller understanding

of spirituality across diverse expressions. The current measure was designed to assess how spiritual expressions and spiritual processes differ based on source(s) of spirituality using a broad framework that excludes theistic and religious references in item stems. Through theoretical grounding, an expansive approach to spirituality measurement, intentional inclusion of functional components, and the use of a traditional content validation process, this line of research takes important steps toward addressing shortcomings in the measurement of spirituality.

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## APPENDICES

### Appendix A

#### Phase 1: Initial Item Development and Classifications

Table A1

*Phase 1: Modification of Items from Existing Measures*

Original Item	Source	Modifications	Rationale	Modified Item
I maintain an inner awareness of God's presence in my life.	The Spiritual Transcendence Index (Question 2)	1) Removal of word "God" 2) Added phrase "strive to" 3) Changed response format	1) Measurement of spirituality from nontheistic framework. 2) Align closer with Pargament's (1999; 2013) framework for conservation. 3) Alignment with 4-point Likert Scale	I strive to maintain an inner awareness of the sacred presence in my life.
Maintaining my spirituality is a priority for me	The Spiritual Transcendence Index (Question 5)	1) Added "I believe" in item wording 2) Changed response format	1) Verbiage "I believe" was added to increase likelihood that the item will tap into functional component. 2) Alignment with 4-point Likert response format	I believe that maintaining my spirituality should be a priority.
My spirituality helps me to understand my life's purpose	The Spiritual Transcendence Index (Question 7)	1) Added phrase "provides a framework for understanding..." 2) Changed response format	1) Verbiage added to align closer with Pargament's (1999; 2013) framework for discovery. 2) Alignment with 4-point Likert response format	My spirituality provides a framework for understanding my life's purpose.
I feel connected to a deity or deities	The RiTE Spirituality Measure (Question 6)	1) Replaced "deity or deities" with "spiritual presence" 2) Changed "feel" to "desire" 3) Changed response format	1) Modified terminology to align with conceptualization of spirituality--nontheistic framework. 2) Alignment with 4-point Likert response format	I desire connection with a spiritual presence.

Original Item	Source	Modifications	Rationale	Modified Item
I feel belief in a deity or deities is very important.	The RiTE Spirituality Measure (Question 7)	<ol style="list-style-type: none"> <li>1) Replaced “deity or deities” with “spiritual presence”</li> <li>2) Removed language “I feel...”</li> <li>3) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Modified terminology to align with conceptualization of spirituality— nontheistic framework.</li> <li>2) Removed “I feel...” to focus only on cognitive dimension of spirituality as opposed to both cognitive and affective</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	Belief in a spiritual presence is very important to me.
I believe in a deity or deities who has/have a purpose/plan for my life.	The RiTE Spirituality Measure (Question 8)	<ol style="list-style-type: none"> <li>1) Replaced “deity or deities” with “spiritual presence”</li> <li>2) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Modified terminology to align with conceptualization of spirituality from nontheistic framework.</li> <li>2) Alignment with 4-point Likert response format</li> </ol>	I believe in a spiritual presence who/that provides a purpose for my life.
I regularly perform traditional spiritual practices.	The RiTE Spirituality Measure (Question 11)	<ol style="list-style-type: none"> <li>1) Removed word “traditional”</li> <li>2) Removed word “regularly”</li> <li>3) Added phrase “to maintain connection with what is sacred in my life”</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removal of “traditional” as one may view spiritual practices as nontraditional (i.e., unaffiliated with a religious belief system)</li> <li>2) Removed “regularly” because measure response anchors will capture temporal component.</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	I perform spiritual practices to maintain connection with what is sacred in my life.



Original Item	Source	Modifications	Rationale	Modified Item
I see life as a journey toward fulfillment.	The RiTE Spirituality Measure (Question 30)	<ol style="list-style-type: none"> <li>1) Changed “I see” to “I believe”</li> <li>2) Added word “spiritual”</li> <li>3) Added phrase “joys and challenges are all part of a”</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Changed wording “I see” to “I believe” with the aim that the item will be more likely to tap into functional component of spirituality.</li> <li>2) Included word “spiritual” to specify type of fulfillment</li> <li>3) Added phrase “joys and challenges...” to capture aspects of Pargament’s (1999; 2013) framework for transformation</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	I believe life’s joys and challenges are all part of a journey toward spiritual fulfillment.
When I am faced with an important decision, my spirituality. [0=plays absolutely no role to 10=always the overriding consideration]	Intrinsic Spirituality Scale (Question 3)	<ol style="list-style-type: none"> <li>1) Reworded item stem to match revised response format</li> <li>2) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Reworded to align with response format</li> <li>2) Alignment with 4-point Likert response format</li> </ol>	When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.
When I think of the things that help me to grow and mature as a person, my spirituality. [0=has no effect on my personal growth to 10=is absolutely the most important factor in my personal growth]	Intrinsic Spirituality Scale (Question 5)	<ol style="list-style-type: none"> <li>1) Added phrase “I believe” at beginning of item stem</li> <li>2) Added “struggle” verbiage</li> <li>3) Reworded item stem to match revised response format</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Added the phrase “I believe” at the beginning of the item stem with the aim that the item will be more likely to tap into the functional component of spirituality.</li> <li>2) Added “struggle” to tap into Pargament’s (1999; 2013) framework for transformation and capture this specific aspect of spirituality’s impact on personal growth.</li> <li>3) Reworded for readability and to align with response format</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	I believe spiritual struggles are an important component of my personal growth.

Original Item	Source	Modifications	Rationale	Modified Item
I often feel strongly related to a power greater than myself.	SEI-R Spiritual Support Subscale (Question 1)	1) Changed original word “related” to “connected, and original wording “a power greater than myself” to “a force outside of myself” 2) Changed response format	1) Changed original wording to align with conceptualization of spirituality (i.e., centrality of connection and transcendence) 2) Alignment with 4-point Likert response format	I feel strongly connected to a force outside of myself.
I make a conscious effort to live in accordance with my spiritual values.	SEI-R Spiritual Support Subscale (Question 10)	1) Changed response format	1) Alignment with 4-point Likert response format	I make a conscious effort to live in accordance with my spiritual values
My faith guides my whole approach to life	SEI-R Spiritual Support Subscale (Question 13)	1) Reworded item stem and added verbiage about sacred connection (“My approach to life is driven by my desire to stay connect with the sacred presence in my life.” 2) Changed response format	1) Changed wording to focus on connection aspect of spirituality as guiding factor. 2) Alignment with 4-point Likert response format	My approach to life is driven by my desire to stay connected with the sacred presence in my life.
To what extent to your personal beliefs help you understand difficulties in life?	WHOQOL SRPB (Question F24.4)	1) Modified wording of item to align with response format. 2) Changed original wording “personal beliefs” to “connection with the sacred” 3) Changed response format	1) Modified wording of question into a statement to align with response format. 2) Changed wording to align with spirituality construct, and more specifically sacred connection aspect of Pargament’s (1999; 2013) conservation framework. 3) Alignment with 4-point Likert response format	My connection with the sacred helps me understand difficulties in life.

Original Item	Source	Modifications	Rationale	Modified Item
To what extent do you feel inner spiritual strength?	WHOQOL SRPB (Question SP5)	<ol style="list-style-type: none"> <li>1) Modified wording of item to align with response format</li> <li>2) Added specifier “when facing challenges in life”</li> <li>3) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Modified wording of question into a statement to align with response format.</li> <li>2) Added “challenge” verbiage to tap into Pargament’s (1999; 2013) framework for transformation.</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	I feel inner spiritual strength when facing challenges in life.
To what extent does faith contribute to your well-being?	WHOQOL SRPB (Question SP8.1)	<ol style="list-style-type: none"> <li>1) Added phrase “I believe”</li> <li>2) Changed original word “faith” to “spirituality”</li> <li>3) Added modifier to specify way spirituality contributed to well-being (“positively”)</li> <li>4) Modified wording of item to align with response format</li> <li>5) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Added phrase “I believe” to increase likelihood of tapping into functional component of spirituality.</li> <li>2) Changed wording to align with focus (specifically nontheistic spirituality) of measure, for sake of consistency, and to reduce potential religious bias in verbiage.</li> <li>3) Added direction (“positively”) to make item more precise with regards to way in which it impacts well-being.</li> <li>4) Modified wording of question into a statement to align with response format</li> <li>5) Alignment with 4-point Likert response format</li> </ol>	I believe my spirituality positively contributes to my well-being.

Original Item	Source	Modifications	Rationale	Modified Item
To what extent does faith contribute to your well-being?	WHOQOL SRPB (Question SP8.1)	<ol style="list-style-type: none"> <li>1) Added phrase “I believe”</li> <li>2) Changed original word “faith” to “spirituality”</li> <li>3) Added modifier to specify way spirituality contributed to well-being (“negatively”)</li> <li>4) Modified wording of item to align with response format</li> <li>5) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Added phrase “I believe” to increase likelihood of tapping into functional component of spirituality.</li> <li>2) Changed wording to align with focus (specifically nontheistic spirituality) of measure, for sake of consistency, and to reduce potential religious bias in verbiage.</li> <li>3) Added direction (“negatively”) to make item more precise with regards to way in which it impacts well-being.</li> <li>4) Modified wording of question into a statement to align with response format.</li> <li>5) Alignment with 4-point Likert response format</li> </ol>	I believe my spirituality negatively contributes to my well-being
To what extent does faith give you comfort in daily life?	WHOQOL SRPB (Question SP8.2)	<ol style="list-style-type: none"> <li>1) Changed original word “faith” to “spirituality”</li> <li>2) Added “emotional” verbiage</li> <li>3) Modified wording of item to align with response format</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Changed wording to align with focus (specifically nontheistic spirituality) of measure, for sake of consistency, and to reduce potential religious bias in verbiage.</li> <li>2) Added word “emotional” to tap more specifically into affective component of spirituality</li> <li>3) Modified wording of question into a statement to align with response format</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	My spirituality provides emotional comfort in my daily life.

Original Item	Source	Modifications	Rationale	Modified Item
I feel God's presence.	BMMRS DSE Subscale (Question 1)	<ol style="list-style-type: none"> <li>1) Removed reference to God and replaced with "spiritual force"</li> <li>2) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to God to allow for measurement of spirituality that may or may not be tied theistic beliefs</li> <li>2) Alignment with 4-point Likert response format</li> </ol>	I feel the presence of a spiritual force in my life.
I desire to be closer to or in union with God	BMMRS DSE Subscale (Question 4)	<ol style="list-style-type: none"> <li>1) Removed reference to "God" and replaced with wording "source of spirituality" that aligns with conceptualization of spirituality.</li> <li>2) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed theistic reference to allow for measurement of spirituality from nontheistic framework.</li> <li>2) Alignment with 4-point Likert response format</li> </ol>	I desire to be closer to the source of my spirituality.
Within your religious or spiritual tradition, how often do you meditate?	BMMRS Private Religious Practices Domain (Question 13)	<ol style="list-style-type: none"> <li>1) Removed reference to "religious tradition"</li> <li>2) Added verbiage indicating purpose of action "...in an effort to preserve my relationship with the sacred."</li> <li>3) Modified wording and structure of item</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to religious tradition to align with conceptualization of spirituality from nontheistic framework.</li> <li>2) Added verbiage to indicate purpose of spiritual activity to align with Pargament's (1999; 2013) conservation framework.</li> <li>3) Modified wording and structure of question to make it a statement in order to align with response format.</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.

Original Item	Source	Modifications	Rationale	Modified Item
Within your religious or spiritual tradition, how often do you meditate?	BMMRS Private Religious Practices Domain (Question 13)	<ol style="list-style-type: none"> <li>1) Item stemmed from Question 13, but changed meditate to pray</li> <li>2) Removed reference to “religious tradition”</li> <li>3) Added verbiage indicating purpose of action “...in an effort to preserve my relationship with the sacred.”</li> <li>4) Modified wording and structure of item</li> <li>5) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Changed spiritual practices from meditate to prayer to extend to an additional spiritual practice.</li> <li>2) Removed reference to religious tradition to align with conceptualization of spirituality from nontheistic framework.</li> <li>3) Added verbiage to indicate purpose of spiritual activity to align with Pargament’s (1999; 2013) conservation framework.</li> <li>4) Modified wording and structure of question to make it a statement in order to align with response format.</li> <li>5) Alignment with 4-point Likert response format</li> </ol>	Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.
I feel God is punishing me for my sins or lack of spirituality.	BMMRS Religious/Spiritual Coping (Question 20)	<ol style="list-style-type: none"> <li>1) Remove reference to “God”</li> <li>2) Remove reference to “sins”</li> <li>3) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to God in item stem to allow for measurement of spirituality from nontheistic framework..</li> <li>2) Removal of “sins” to allow for measurement of spirituality that may or may not be connected with religious belief system that entails sin and also removed this to avoid double-barreled item.</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	I feel I am being punished for a lack of spirituality.

Original Item	Source	Modifications	Rationale	Modified Item
To what extent is your religious involvement in understanding or dealing with stressful situations in any way.	BMMRS Religious/Spiritual Coping (Question 23)	<ol style="list-style-type: none"> <li>1) Changed religious wording to spirituality</li> <li>2) Made item into two separate item stems</li> <li>3) Added phrase “I rely on my spirituality to help...”</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to religiosity to align with conceptualization of spirituality from nontheistic framework.</li> <li>2) Made item into two separate times to avoid potential for double-barreled item.</li> <li>3) Added verbiage about reliance on spirituality to stress centrality of spirituality in understanding.</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	I rely on my spirituality to help me understand stressful situations.
To what extent is your religious involvement in understanding or dealing with stressful situations in any way.	BMMRS Religious/Spiritual Coping (Question 23)	<ol style="list-style-type: none"> <li>1) Changed religious wording to spirituality</li> <li>2) Made item into two separate item stems</li> <li>3) Added phrase “I rely on my spirituality to help...”</li> <li>4) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to religiosity to align with conceptualization of spirituality from nontheistic framework.</li> <li>2) Made item into two separate times to avoid potential for double-barreled item.</li> <li>3) Added verbiage about reliance on spirituality to stress centrality of spirituality in coping.</li> <li>4) Alignment with 4-point Likert response format</li> </ol>	I rely on my spirituality to help me deal with stressful situations.
I try hard to carry my religious beliefs over into all my other dealings in life.	BMMRS Commitment (Question 31)	<ol style="list-style-type: none"> <li>1) Changed “religious beliefs” to “spiritual beliefs”</li> <li>2) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Removed reference to religious beliefs to align with conceptualization of spirituality that may or may not be tied to a religious belief system.</li> <li>2) Alignment with 4-point Likert response format</li> </ol>	I try hard to carry my spiritual beliefs over into all my other dealings in life.

Original Item	Source	Modifications	Rationale	Modified Item
The events in my life unfold according to a divine or greater plan.	BMMRS Appendix Meaning (Question 1)	<ol style="list-style-type: none"> <li>1) Added phrase “I believe”</li> <li>2) Removed reference to “divine”</li> <li>3) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Added the phrase “I believe” to the item with the aim of increasing specificity of item to tap into functional component of spirituality.</li> <li>2) Removed reference to “divine” to align with conceptualization of spirituality from nontheistic framework.</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	I believe events in my life unfold according to a greater plan.
I have a sense of mission or calling in my own life.	BMMRS Appendix Meaning (Question 2)	<ol style="list-style-type: none"> <li>1) Added word “spirituality”</li> <li>2) Modified wording of item by including “sense of direction”</li> <li>3) Changed response format</li> </ol>	<ol style="list-style-type: none"> <li>1) Added the word spirituality to item to increase likelihood that item will tap into purpose in life that is derived from spirituality instead of a general sense of purpose in life.</li> <li>2) Modified the wording of the item stem by removing “mission or calling” and replacing it with “sense of direction” to align with verbiage within conceptualization of spirituality.</li> <li>3) Alignment with 4-point Likert response format</li> </ol>	My spirituality provides a sense of direction in my life.

*Note.* Pargament’s (1999; 2013) theoretical framework was derived from the following sources:  
Pargament, K. I. (1999). The psychology of religion and spirituality? Yes and no. *The International Journal for the Psychology of Religion*, 9(1), 3-16. <http://doi.org/10.1207/s15327582ijpr0901>  
Pargament, K. I. (2013). Searching for the sacred: Toward a nonreductionistic theory of spirituality. In K. I. Pargament (Ed.), *APA handbook of psychology, religion, and spirituality* (Vol.1, pp. 432-433). Washington, DC: American Psychological Association. <http://doi.org/10.1037/14045-0143>



## Initial Item Pool: Classifications and Response Anchors

1. I strive to maintain an inner awareness of the sacred presence in my life.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Response anchors: Not at all like me → Very much like me
2. I believe that maintaining my spirituality should be a priority.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Strongly disagree → strongly agree
3. My spirituality provides a framework for understanding my life's purpose.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Not at all → a great deal
4. I desire connection with a spiritual presence.
  - a. Classification on TOS: Discovery—Affective
  - b. Not true of me → very true of me
5. Belief in a spiritual presence is very important to me.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Not true of me → very true of me
6. I believe in a spiritual presence who/that provides a purpose for my life.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Strongly disagree → strongly agree
7. I ~~regularly~~ perform spiritual practices to maintain connection with what is sacred in my life.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never → always
8. I believe life's joys and challenges are all part of a journey toward spiritual fulfillment.
  - a. Classification on TOS: Transformation—Cognitive
  - b. Strongly disagree → strongly agree
9. When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never → always
10. I believe spiritual struggles are an important component of my personal growth.
  - a. Classification on TOS: Transformation—Cognitive
  - b. Strongly disagree → strongly agree

11. I feel strongly connected to a force outside of myself.
  - a. Classification on TOS: Discovery—Affective
  - b. Not at all→ A great deal
  
12. I make a conscious effort to live in accordance with my spiritual values.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never→always
  
13. My approach to life is driven by my desire to stay connected with the sacred presence in my life.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Not true of me→ very true of me
  
14. My connection with the sacred helps me understand difficulties in life.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Never→Always
  
15. I feel inner spiritual strength when facing challenges in life.
  - a. Classification on TOS: Transformation—Affective
  - b. Never→Always
  
16. I believe my spirituality positively contributes to my well-being.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Strongly disagree→Strongly agree
  
17. I believe my spirituality negatively contributes to my well-being.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Strongly disagree→ Strongly agree
  
18. My spirituality provides emotional comfort in my daily life.
  - a. Classification on TOS: Discovery—Affective
  - b. Never→Always
  
19. I feel the presence of a spiritual force in my life.
  - a. Classification on TOS: Discovery—Affective
  - b. I never do→ I always do
  
20. I desire to be closer to the source of my spirituality.
  - a. Classification on TOS: Conservation—Affective
  - b. Not true of me→ very true of me
  
21. Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never→ Always

22. Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.
- Classification on TOS: Conservation—Behavioral
  - Never → Always
23. I feel I am being punished for a lack of spirituality.
- Classification on TOS: Transformation—Affective
  - Never → Always
24. I rely on my spirituality to help me understand stressful situations.
- Classification on TOS: Transformation—Cognitive
  - Not at all like me → Very much like me
25. I rely on my spirituality to help me deal with stressful situations.
- Classification on TOS: Transformation—Behavioral
  - Not at all like me → Very much like me
26. I try hard to carry my spiritual beliefs over into all my other dealings in life.
- Classification on TOS: Discovery—Behavioral
  - Never → Always
27. I believe events in my life unfold according to a greater plan.
- Classification on TOS: Discovery—Cognitive
  - Strongly disagree → strongly agree
28. My spirituality provides a sense of direction in my life.
- Classification on TOS: Discovery—Cognitive
  - Strongly disagree → strongly agree
29. My spirituality is a source of frustration for me.
- Classification on TOS: Transformation—Affective
  - Never → Always
30. I am discontent with my spiritual development.
- Classification on TOS: Transformation—Affective
  - Not true of me → Very true of me
31. I feel insecure in my connection with what/who is sacred in my life.
- Classification on TOS: Transformation—Affective
  - Not true of me → Very true of me
32. I feel secure in my connection with what/who is sacred in my life.
- Classification on TOS: Discovery—Affective
  - Not true of me → Very true of me

33. I sense the presence of something sacred/transcendent in my life.
- Classification on TOS: Discovery—Affective
  - I never do→I always do
34. I feel emotionally close to what/who is sacred in my life.
- Classification on TOS: Discovery—Affective
  - I never do→I always do
35. My spirituality often causes me to have negative feelings about myself.
- Classification on TOS: Transformation—Affective
  - Never→ Always
36. My spirituality often causes me to have positive feelings about myself.
- Classification on TOS: Discovery—Affective
  - Never→Always
37. My spirituality provides meaning to my life experiences.
- Classification on TOS: Discovery—Affective
  - None→A great deal
38. I engage in spiritual practices to strengthen my spirituality.
- Classification on TOS: Conservation—Behavioral
  - I never do→I always do
39. I believe it is important to pursue connection with what/who is sacred in my life.
- Classification on TOS: Discovery—Behavioral
  - Strongly disagree→ strongly agree
40. Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.
- Classification on TOS: Conservation—Behavioral
  - Strongly disagree→ strongly agree
41. Spiritual practices increase my awareness of areas in my life that need improvement.
- Classification on TOS: Conservation—Behavioral
  - Never→Always
42. Spiritual beliefs guide my way of life.
- Classification on TOS: Discovery—Behavioral
  - Not true of me→Very true of me
43. Through my actions, I strive for spirituality to be an important part of who I am.
- Classification on TOS: Conservation—Behavioral
  - Not true of me→ Very true of me

44. My spirituality causes frustration in my daily life.  
a. Classification on TOS: Discovery—Affective  
b. Never→Always
45. When engaging in spiritual practices (i.e., prayer, meditation, worship, rituals, etc.), I experience inner peace.  
a. Classification on TOS: Conservation—Affective  
b. I never do→ I always do
46. My spirituality inspires a sense of awe during daily life.  
a. Classification on TOS: Discovery—Affective  
b. Never→ Always
47. My spirituality is a guiding presence in my daily life.  
a. Classification on TOS: Discovery—Affective  
b. Not true of me→ Very true of me
48. My spiritual beliefs often cause internal struggles that cause me to question my spirituality.  
a. Classification on TOS: Transformation—Affective  
b. Never→Always
49. I have a hard time reconciling life's difficulties with my spiritual beliefs.  
a. Classification on TOS: Transformation—Cognitive  
b. I never do→ I always do
50. Understanding where my life fits into a greater plan is a source of stress for me.  
a. Classification on TOS: Discovery—Cognitive  
b. Never→ Always
51. Because of my spirituality, I have a hard time accepting who I am.  
a. Classification on TOS: Transformation—Cognitive  
b. Not true of me→Very true of me
52. I feel guilty when I doubt my spiritual belief system.  
a. Classification on TOS: Transformation—Affective  
b. Never→Always
53. Pursuing connection with the source(s) of my spirituality is important to me.  
a. Classification on TOS: Discovery—Behavioral  
b. None→ A great deal
54. I believe my relationship with a spiritual presence is central to my spiritual development.  
a. Classification on TOS: Conservation—Cognitive  
b. Strongly disagree→strongly agree

55. Knowing that my life is part of a larger spiritual plan makes me feel grateful.
- Classification on TOS: Discovery—Affective
  - Not true of me → Very true of me
56. I strive for my actions to align with my spiritual purpose in life.
- Classification on TOS: Conservation—Behavioral
  - Never → Always
57. In order to maintain my connection with the sacred, I live my life in accordance with my spiritual purpose.
- Classification on TOS: Conservation—Behavioral
  - Not at all like me → Very much like me
58. My spirituality provides meaning to my day to day activities.
- Classification on TOS: Discovery—Behavioral
  - Not true of me → Very true of me
59. I gain a deeper understanding of my spirituality when I face emotional suffering.
- Classification on TOS: Transformation—Affective
  - I never do → I always do
60. When I doubt and/or question my spiritual beliefs, I experience spiritual growth.
- Classification on TOS: Transformation—Affective
  - I never do → I always do
61. When I face spiritual struggles, I feel disconnected from the sacred presence in my life.
- Classification on TOS: Transformation—Affective
  - I never do → I always do
62. I gain my understanding of the world from my spiritual journey.
- Classification on TOS—Transformation—Cognitive
  - Strongly disagree → strongly agree
63. I feel a deeper sense of connection with the sacred presence in my life because of the difficulties I face in life.
- Classification on TOS → Transformation—Affective
  - Not true of me → Very true of me
64. I experience the sacred connection when I engage in spiritual practices (i.e. meditation, prayer, rituals, music, etc.).
- Classification on TOS → Conservation—Affective
  - Never → Always

65. When I overcome challenges in life and grow spiritually, I feel a stronger sense of purpose.
- a. Classification on TOS → Transformation—Cognitive
  - b. I never do → I always do

## Appendix B

### Internal Review Information Sheet

For the purposes of this review, you will be asked to evaluate items for a spirituality measure. This review consists of two parts.

**Part 1** consists of evaluation of item content based categorization of items according to the conceptualization of spirituality that has been set forth (noted as Part 1a on the accompanying document), as well as functional classification of items (noted as Part 1b). *Part 1a* requires that you indicate the item category that aligns most closely with the item based on the definitions provided on page 2 (Discovery, Conservation, or Transformation). *Part 1b* requires that you provide a functional classification for each item (affective, behavioral, or cognitive) based on which functional domain the item taps into the best. Please use an asterisk (\*) to indicate which item category and which functional domain each item aligns with most closely. If you feel that an item could fall into more than one area of spirituality and/or more than one functional domain, please note this on the attached form (in the respective column) by using an addition symbol (+).

**Part 2** consists of evaluation of each items overall quality based on content (noted as Part 2a) and form (noted as Part 2b). *Part 2a* requires that you provide content ratings of each item using a rating scale from 1 to 4 (1= poor quality, 2= fair quality, 3= good quality, and 4= excellent quality). Content ratings should assess the appropriateness of items with regards to their match with the construct of spirituality as specified for this measure. *Part 2b* requires that you provide form ratings of each item using a rating scale from 1 to 4 (1= poor quality, 2= fair quality, 3= good quality, and 4= excellent quality). Form quality rating should assess the readability of items based on clarity and adherence to a 7<sup>th</sup> grade reading level. For any quality rating of  $\leq 2$ , please provide qualitative feedback (in the designated area on the accompanying document) on areas of weakness in the item and suggested improvements.

#### ***Measure Characteristics***

Please keep the following information in mind as you review pool of items.

- The proposed measure aims to measure spirituality using an existing theoretical framework (Pargament, 2013); while allowing measurement of spirituality that may not be associated with theism.
- The measure will consist of approximately 20 items.
- All items are anchored on a 4-point rating scale (content of anchors vary based on item), with the option for participants to mark “I don’t understand the question”
- Participants will be given the following set of instructions:
  - “This survey intends to measure spirituality. Spirituality, for the purposes of this survey, is defined as one’s search for, and/or connection with whatever you deem sacred and/or transcendent in your life. Therefore, references to ‘sacred’, ‘spiritual force’, ‘spiritual presence’, and ‘transcendent’ should be interpreted as the source of your spirituality according to your personal belief system and may or may not relate to a Higher Power, God, gods, nature, Supreme Being, etc. Spirituality, for the



purposes of this measure, may or may not be tied to a religious belief system. Please read each item carefully and respond according to how you typically experience your spirituality.”

### ***Key Definitions***

Please reference the following information as you evaluate items.

- **Definition of Spirituality**

- Based on Pargament’s theoretical framework, spirituality is defined as one’s search for and connection with the sacred.
- Spirituality is viewed as a motivation and life-long journey entailing three key processes:
  - Discovery
  - Conservation
  - Transformation

- **Item Category definitions:**

- **Discovery:** The motivation to discover what is sacred in our lives. According to Pargament (2013), the process of discovery may involve any or all of the following (p. 262):
  - Personal investment in search for and pursuit of the sacred and/or sacred aspects of life
  - Emotion evoked from perception of the sacred
  - The process of gaining internal strength (i.e., sense of fulfillment and/or support) from aspects of life that are deemed sacred
  - Deriving a guiding framework from pursuit of the sacred that gives a sense of meaning/purpose to other areas of life (i.e., other goals and motivations).
- **Conservation:** Spiritual pathways used to maintain and preserve connection with the sacred. According to Pargament (2013), the process of conservation may include any or all of the following spiritual pathways (pp. 262-264):
  - practices— for example rituals, prayer, meditation, music, etc.
  - knowledge— for example reading/studying sacred/spiritual texts/readings, scientific inquiry, etc.
  - experiences— for example prayer, meditation, mindfulness, walks in nature, etc.
  - relationships— for example engagement with a spiritual community
  - coping—for example support derived from a spiritual community, rituals, inner strength derived from sacred, etc.
- **Transformation:** Changes in a person’s understanding of themselves, their purpose in life, the world, and/or the sacred (or sacred aspects of their life) as a result of spiritual struggles (Pargament, 2013).
  - Spiritual struggles entail interpersonal, intrapersonal, and divine struggles that center around spiritual issues, internal conflicts, doubts, questions, and/or feelings of disconnection from sacred (or sacred aspects of life) (Pargament, 2013, p.265-266).

- Functional Classification definitions:
  - **Affective:** this component of spiritual expression is defined as the emotions and/or feelings one has about his/her spirituality and as a result of his/her spirituality/spiritual beliefs
  - **Behavioral:** this component of spiritual expression is defined as actions and/or behaviors performed as a result of and an extension of one's internal spirituality/spiritual beliefs
  - **Cognitive:** this component of spiritual expression represents one's beliefs and/or thoughts about his/her spirituality and as a result of his/her spirituality.

Key Reference:

Pargament, K. I., (2013). Searching for the sacred: Towards a nonreductionistic theory of spirituality. In K. I. Pargament, J. J. Exline, & J.W. Jones (Eds.), *APA Handbook of psychology, religion, and spirituality* (pp. 257-273). Washington, DC: American Psychological Association

## Appendix C

### Phase 2: Item Modifications and Classifications

Table C1

*Phase 2: Item Revisions from Internal Review*

Item Reviewed	Qualitative Feedback	Modified Item	Rationale
I strive to maintain an inner awareness of the sacred presence in my life.	<b>Reviewer A:</b> Reading level of words: “strive,” “awareness,” and “presence”  <b>Reviewer B:</b> Too abstract	Item deleted	Content and mean form ratings were at or below 2.5
I believe that maintaining my spirituality should be a priority.	None	No revisions made	N/A
My spirituality provides a framework for understanding my life’s purpose.	None	No revisions made	N/A
I desire connection with a spiritual presence.	<b>Reviewer A:</b> Reading level of words: “connection” and “presence”	Item deleted	Mean form rating equal to 2.5
Belief in a spiritual presence is very important to me.	<b>Reviewer A:</b> Reading level of word “presence”	“Believing in spiritual things is very important to me.”	Reading level; revision brings reading level from 8.3 to 8.8
I believe in a spiritual presence who/that provides a purpose for my life.	<b>Reviewer A:</b> Reading level of word “presence”	No revisions made	Reading level of the item is 6.7 so no revision made
I perform spiritual practices to maintain connection with what is sacred in my life.	<b>Reviewer A:</b> Reading level of word “connection”	“I perform spiritual practices to stay close to what is sacred in my life”	Reading level; revision brings reading level from 8.4 to 5.8
I believe life’s joys and challenges are all part of a journey toward spiritual fulfillment.	<b>Reviewer A:</b> Reading level of word “fulfillment”	“I believe life’s ups and downs are all part of my spiritual journey.”	Reading level; revision brings reading level from 9.9 to 5.8
When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	None	No revisions made	N/A

Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
I feel strongly connected to a force outside of myself.	<b>Reviewer A:</b> Reading level of word “force”	No revisions made	Reading level of the item is 6.0 so no revision made
I make a conscious effort to live in accordance with my spiritual values.	<b>Reviewer A:</b> Reading level of words: “accordance” and “values”	I try to live my life in a way that lines up with my spiritual values.	Reading level; revision brings reading level from 7.6 to 4.6. No revision to “values” terminology because use of this word in revised item is below 8 <sup>th</sup> grade reading level.
My approach to life is driven by my desire to stay connected with the sacred presence in my life.	<b>Reviewer A:</b> Reading level of words: “approach” and “presence”  <b>Reviewer B:</b> Wordy and a little too vague	Item deleted	Mean form rating equal to 2.0
My connection with the sacred helps me understand difficulties in life.	<b>Reviewer A:</b> Reading level of word “connection”	My bond with the sacred helps me understand difficulties in life.	Reading level; revision brings reading level from 9.0 to 6.9
I feel inner spiritual strength when facing challenges in life.	None	No revisions made	N/A
I believe my spirituality positively contributes to my well-being.	<b>Reviewer A:</b> Reading level of word “well-being”	I believe being spiritual improves my health.	Reading level; revision brings reading level from 14.1 to 5.9
I believe my spirituality negatively contributes to my well-being.	<b>Reviewer A:</b> Reading level of word “well-being”	I believe being spiritual is bad for my health.	Reading level; revision brings reading level from 14.1 to 3.9
My spirituality provides emotional comfort in my daily life.	<b>Reviewer A:</b> Reading level of phrase “emotional comfort”	My spirituality is a source of comfort.	Reading level; revision brings reading level from 12.8 to 7.3
I feel the presence of a spiritual force in my life.	<b>Reviewer A:</b> Reading level of words: “presence” and “force”	No revisions made	Reading level of the item is 3.7 so no revision is made.
I desire to be closer to the source of my spirituality.	None	No revisions made	N/A
Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.	None	No revisions made	N/A

Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.	None	No revisions made	N/A
I rely on my spirituality to help me understand stressful situations.	None	No revisions made	N/A
I rely on my spirituality to help me deal with stressful situations.	None	No revisions made	N/A
I try hard to carry my spiritual beliefs over into all my other dealings in life.	<b>Reviewer A:</b> Reading level of word “dealings”	Item deleted	Mean form rating equal to 2.5
I believe events in my life unfold according to a greater plan.	<b>Reviewer A:</b> Reading level of word “unfold”	I believe events in my life happen according to a greater plan.	Reading level; revision does not change reading level (remains at 6.7 which is satisfactory level).
My spirituality provides a sense of direction in my life.	<b>Reviewer A:</b> Reading level of word” sense”	My spirituality guides the direction of my life.	Reading level; revision moves reading level from 8.3 to 8.1
My spirituality is a source of frustration for me.	None	No revisions made	N/A
I am discontent with my spiritual development.	<b>Reviewer A:</b> Reading level of word “discontent”; might be better to phrase as “I am not happy”	I am not happy with my spiritual development.	Reading level; revision moves reading level from 10.7 to 8.1.
I feel insecure in my connection with what/who is sacred in my life.	<b>Reviewer A:</b> Reading level of words “insecure” and “connection”	I feel unsure about my relationship with what/who is sacred in my life.	Reading level; Original wording was 5.8 reading level. Revision moved reading level to 6.7.
I feel secure in my connection with what/who is sacred in my life.	<b>Reviewer A:</b> Reading level of words “secure” and “connection”	I feel confident about my relationship with what/who is sacred in my life.	Reading level; Original wording was 5.0 reading level. Revision moved reading level to 7.5.
I sense the presence of something sacred/transcendent in my life.	<b>Reviewer A:</b> Reading level of words: “sense,” “transcendent,” and “presence”	Item deleted	Mean form rating equal to 2.5
I feel emotionally close to what/who is sacred in my life.	<b>Reviewer A:</b> Reading level of phrase “emotionally close”	No revisions made	Reading level of item is 5.6 so no revision was made

Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
My spirituality often causes me to have negative feelings about myself.	None	No revisions made	N/A
My spirituality often causes me to have positive feelings about myself.	None	No revisions made	N/A
My spirituality provides meaning to my life experiences.	None	No revisions made	N/A
I engage in spiritual practices to strengthen my spirituality.	<b>Reviewer A:</b> Perhaps change “practices” to “activities”	I engage in spiritual activities to strengthen my spirituality.	Revised according to suggested wording.
I believe it is important to pursue connection with what/who is sacred in my life.	<b>Reviewer A:</b> Reading level of word “connection”	No revisions made	Reading level of item is 7.6 and terminology “connection” is central to conceptualization so no revision to item was made
Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	<b>Reviewer A:</b> Reading level of word “meditation”	No revisions made	Meditation is the name of a specific spiritual activity. It is provided as an example. No suitable alternative words.
Spiritual practices increase my awareness of areas in my life that need improvement.	None	No revisions made	N/A
Spiritual beliefs guide my way of life.	<b>Reviewer A:</b> Reading level of phrase “way of life”	Spiritual beliefs guide the way I live my life.	Reading level; revision moved reading level from 3.9 to 3.6
Through my actions, I strive for spirituality to be an important part of who I am.	<b>Reviewer B:</b> Too much in the question; unsure if respondents will know which part they are responding to.	Item deleted	Mean form rating equal to 2.5
My spirituality causes frustration in my daily life.	None	No revisions made	N/A
When engaging in spiritual practices (i.e., prayer, meditation, worship, rituals, etc.), I experience inner peace.	<b>Reviewer A:</b> Reading level of word “rituals”	When engaging in spiritual practices (i.e., prayer, meditation, worship, etc.), I experience inner peace.	Removed word rituals due to reading level and it is implied within the phrase “spiritual practices”

Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
My spirituality inspires a sense of awe during daily life.	<b>Reviewer A:</b> Reading level of words “awe” and “sense”	Item deleted	Received a form rating of 2 by one of the reviewers and possible revisions to wording of this item did not enhance readability.
My spirituality is a guiding presence in my daily life.	<b>Reviewer A:</b> Reading level of word “presence”	My spirituality is a guiding influence in my daily life.	Reading level; changing wording did not change reading level. Reading level remains at 8.3
My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	None	No revisions made	N/A
I have a hard time reconciling life’s difficulties with my spiritual beliefs.	<b>Reviewer A:</b> Reading level of word “reconciling” <b>Reviewer B:</b> Reconciling is a big word	My spiritual beliefs make it hard to understand why bad things happen in life.  Revision made to item response anchors to better align with revised item ( <i>Strongly disagree</i> to <i>Strongly agree</i> )	Reading level; revision moved reading level from 10.7 to 6.7. Revision to response anchors to align with revised item stem structure.
Understanding where my life fits into a greater plan is a source of stress for me.	None	No revisions made	N/A
Because of my spirituality, I have a hard time accepting who I am.	None	No revisions made	N/A
I feel guilty when I doubt my spiritual belief system.	<b>Reviewer A:</b> Reading level of phrase “belief system”	I feel guilty when I doubt my spiritual beliefs.	Reading level; revision moved reading level from 6.0 to 4.9
Pursuing connection with the source(s) of my spirituality is important to me.	<b>Reviewer A:</b> Reading level of word “connection”	It is important to me to find connection with the source(s) of my spirituality.	Reading level; revision moved reading level of item is 9.7 to 8.3.
I believe my relationship with a spiritual presence is central to my spiritual development.	<b>Reviewer A;</b> Reading level of word “presence”	Item deleted	Mean form rating equal to 2.5

Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	None	No revisions made	N/A
I strive for my actions to align with my spiritual purpose in life.	<b>Reviewer A:</b> Reading level of word “align” <b>Reviewer B:</b> “Spiritual purpose” phrase is confusing	Item deleted	Reading level & confusion of terminology. Double barreled concept that cannot be asked directly without double barreled item.
In order to maintain my connection with the sacred, I live my life in accordance with my spiritual purpose.	<b>Reviewer A:</b> Reading level of words “in accordance” and “connection” <b>Reviewer B:</b> Vague & “spiritual purpose” is confusing	Item deleted	Mean form rating equal to 2.5
My spirituality provides meaning to my day to day activities.	None	No revisions made	N/A
I gain a deeper understanding of my spirituality when I face emotional suffering.	<b>Reviewer A:</b> Reading level of phrase “emotional suffering”	I grow spiritually when I go through hard emotional times.	Reading level; revision moves reading level from 13.0 to 7.1
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	None	No revisions made	N/A
When I face spiritual struggles, I feel disconnected from the sacred presence in my life.	<b>Reviewer A:</b> Reading level of words: “spiritual struggles,” “disconnected,” and “presence”	When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.	Reading level; revision keeps reading level at 8.3 but changes result in more precise terminology, and terminology (i.e. source of spirituality) remains more consistent across items.
I gain my understanding of the world from my spiritual journey.	<b>Reviewer A:</b> Reading level of word “journey”	No revisions made	Reading level of item is 6.9 and terminology “journey” aligns with conceptualization of spirituality based on Pargament’s theoretical framework so no revision was made.



Item Reviewed	Suggested Revision(s)	Modified Item	Rationale
I feel a deeper sense of connection with the sacred presence in my life because of the difficulties I face in life.	<b>Reviewer A:</b> Reading level of words “connection” and “presence”	Because of challenges I face in life, I have a deeper bond with the source(s) of my spirituality.	Reading level; revision moves reading level from 9.6 to 8.4.
I experience sacred connection when I engage in spiritual practices (i.e. meditation, prayer, rituals, music, etc.).	<b>Reviewer A:</b> Reading level of word “connection”	I experience the sacred when I engage in spiritual practices (i.e., meditation, worship, prayer, music, etc.).	Reading level; revision moves reading level from 10.7 to 8.3. Removed “rituals” as with earlier item due to it already being implied in item stem phrase “spiritual practices” Added “worship” since this was part of examples of spiritual practices listed in earlier item.
When I overcome challenges in life and grow spiritually, I feel a stronger sense of purpose.	<b>Reviewer A:</b> Reading level of word “sense”	When I overcome challenges in life, I have a stronger feeling of purpose.	Reading level; revision moves reading level from 9.0 to 7.6. Removed “grow spiritually” because it creates double barreled item.

## Phase 2: Item Classifications and Response Anchors

1. I believe that maintaining my spirituality should be a priority.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Strongly disagree → strongly agree
2. My spirituality provides a framework for understanding my life's purpose.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Not at all → a great deal
3. Believing in spiritual things is very important to me.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Not true of me → very true of me
4. I believe in a spiritual presence who/that provides a purpose for my life.
  - a. Classification on TOS: Discovery—Cognitive
  - b. Strongly disagree → strongly agree
5. I perform spiritual practices to stay close to what is sacred in my life.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never → always
6. I believe life's ups and downs are all part of my spiritual journey.
  - a. Classification on TOS: Transformation—Cognitive
  - b. Strongly disagree → strongly agree
7. When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never → always
8. I believe spiritual struggles are an important component of my personal growth.
  - a. Classification on TOS: Transformation—Cognitive
  - b. Strongly disagree → strongly agree
9. I feel strongly connected to a force outside of myself.
  - a. Classification on TOS: Discovery—Affective
  - b. Not at all → A great deal
10. I try to live my life in a way that lines up with my spiritual values.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never → always
11. My bond with the sacred helps me understand difficulties in life.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Never → Always

12. I feel inner spiritual strength when facing challenges in life.
  - a. Classification on TOS: Transformation—Affective
  - b. Never→Always
  
13. I believe being spiritual improve my health.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Strongly disagree→Strongly agree
  
14. I believe being spiritual is bad for my health.
  - a. Classification on TOS: Conservation—Cognitive
  - b. Strongly disagree→ Strongly agree
  
15. My spirituality is a source of comfort.
  - a. Classification on TOS: Conservation—Affective
  - b. Never→Always
  
16. I feel the presence of a spiritual force in my life.
  - a. Classification on TOS: Discovery—Affective
  - b. I never do→ I always do
  
17. I desire to be closer to the source of my spirituality.
  - a. Classification on TOS: Discovery—Affective
  - b. Not true of me→ very true of me
  
18. Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never→ Always
  
19. Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.
  - a. Classification on TOS: Conservation—Behavioral
  - b. Never→ Always
  
20. I feel I am being punished for a lack of spirituality.
  - a. Classification on TOS: Transformation—Affective
  - b. Never→ Always
  
21. I rely on my spirituality to help me understand stressful situations.
  - a. Classification on TOS: Transformation—Cognitive
  - b. Not at all like me→ Very much like me
  
22. I rely on my spirituality to help me deal with stressful situations.
  - a. Classification on TOS: Transformation—Affective
  - b. Not at all like me→Very much like me

23. I believe events in my life happen according to a greater plan.  
a. Classification on TOS: Discovery—Cognitive  
b. Strongly disagree→ strongly agree
24. My spirituality guides the direction of my life.  
a. Classification on TOS: Discovery—Cognitive  
b. Strongly disagree→ strongly agree
25. My spirituality is a source of frustration for me.  
a. Classification on TOS: Transformation—Affective  
b. Never→ Always
26. I am not happy with my spiritual development.  
a. Classification on TOS: Transformation—Affective  
b. Not true of me→ Very true of me
27. I feel unsure about my relationship with what/who is sacred in my life.  
a. Classification on TOS: Transformation—Affective  
b. Not true of me→ Very true of me
28. I feel confident about my relationship what/who is sacred in my life.  
a. Classification on TOS: Conservation—Affective  
b. Not true of me→ Very true of me
29. I feel emotionally close to what/who is sacred in my life.  
a. Classification on TOS: Discovery—Affective  
b. I never do→I always do
30. My spirituality often causes me to have negative feelings about myself.  
a. Classification on TOS: Transformation—Affective  
b. Never→ Always
31. My spirituality often causes me to have positive feelings about myself.  
a. Classification on TOS: Conservation—Affective  
b. Never→Always
32. My spirituality provides meaning to my life experiences.  
a. Classification on TOS: Discovery—Cognitive  
b. None→A great deal
33. I engage in spiritual activities to strengthen my spirituality.  
a. Classification on TOS: Conservation—Behavioral  
b. I never do→I always do

34. I believe it is important to pursue connection with what/who is sacred in my life.
- Classification on TOS: Discovery—Behavioral
  - Strongly disagree → strongly agree
35. Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.
- Classification on TOS: Conservation—Behavioral
  - Strongly disagree → strongly agree
36. Spiritual practices increase my awareness of areas in my life that need improvement.
- Classification on TOS: Conservation—Behavioral
  - Never → Always
37. Spiritual beliefs guide the way I live my life.
- Classification on TOS: Discovery—Cognitive
  - Not true of me → Very true of me
38. My spirituality causes frustration in my daily life.
- Classification on TOS: Transformation—Affective
  - Never → Always
39. When engaging in spiritual practices (i.e., prayer, meditation, worship, etc.), I experience inner peace.
- Classification on TOS: Conservation—Behavioral
  - I never do → I always do
40. My spirituality is a guiding influence in my daily life.
- Classification on TOS: Discovery—Affective
  - Not true of me → Very true of me
41. My spiritual beliefs often cause internal struggles that cause me to question my spirituality.
- Classification on TOS: Transformation—Cognitive
  - Never → Always
42. My spiritual beliefs make it hard to understand why bad things happen in life.
- Classification on TOS: Transformation—Cognitive
  - Strongly Disagree → Strongly Agree
43. Understanding where my life fits into a greater plan is a source of stress for me.
- Classification on TOS: Transformation—Cognitive
  - Never → Always
44. Because of my spirituality, I have a hard time accepting who I am.
- Classification on TOS: Transformation—Cognitive
  - Not true of me → Very true of me

45. I feel guilty when I doubt my spiritual beliefs.
- Classification on TOS: Transformation—Affective
  - Never→Always
46. It is important to me to find connection with the source(s) of my spirituality.
- Classification on TOS: Discovery—Behavioral
  - None→ A great deal
47. Knowing that my life is part of a larger spiritual plan makes me feel grateful.
- Classification on TOS: Discovery—Affective
  - Not true of me→Very true of me
48. My spirituality provides meaning to my day to day activities.
- Classification on TOS: Discovery—Cognitive
  - Not true of me→Very true of me
49. I grow spiritually when I go through hard emotional times.
- Classification on TOS: Transformation—Cognitive
  - I never do→ I always do
50. When I doubt and/or question my spiritual beliefs, I experience spiritual growth.
- Classification on TOS: Transformation—Cognitive
  - I never do→ I always do
51. When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.
- Classification on TOS: Transformation—Affective
  - I never do→ I always do
52. I gain my understanding of the world from my spiritual journey.
- Classification on TOS—Discovery—Cognitive
  - Strongly disagree→strongly agree
53. Because of the challenges I face in life, I have a deeper bond with the source(s) of my spirituality.
- Classification on TOS→Transformation—Affective
  - Not true of me→Very true of me
54. I experience the sacred when I engage in spiritual practices (i.e. meditation, prayer, worship, music, etc.).
- Classification on TOS→Conservation—Cognitive
  - Never→Always
55. When I overcome challenges in life, I have a stronger feeling of purpose.
- Classification on TOS→ Transformation—Cognitive
  - I never do→ I always do

## Appendix D

### Internal Review Results

Table D1

*Internal Review Descriptive Statistics*

Item	<i>M</i>		Min		Max	
	Form Quality	Content Quality	Form Quality	Content Quality	Form Quality	Content Quality
I strive to maintain an inner awareness of the sacred presence in my life.	2.0	2.5	2.0	2.0	2.0	3.0
I believe that maintaining my spirituality should be a priority.	3.5	3.5	3.0	3.0	4.0	4.0
My spirituality provides a framework for understanding my life's purpose.	3.5	3.5	3.0	3.0	4.0	4.0
I desire connection with a spiritual presence.	2.5	4.0	2.0	4.0	3.0	4.0
Belief in a spiritual presence is very important to me.	3.0	3.5	2.0	3.0	4.0	4.0
I believe in a spiritual presence who/that provides a purpose for my life.	3.0	3.5	2.0	3.0	4.0	4.0
I perform spiritual practices to maintain connection with what is sacred in my life.	3.0	4.0	2.0	4.0	4.0	4.0
I believe life's joys and challenges are all part of a journey toward spiritual fulfillment.	3.0	3.5	2.0	3.0	4.0	4.0
When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	4.0	4.0	4.0	4.0	4.0	4.0
I believe spiritual struggles are an important component of my personal growth.	3.5	4.0	3.0	4.0	4.0	4.0
I feel strongly connected to a force outside of myself.	3.0	3.5	2.0	3.0	4.0	4.0
I make a conscious effort to live in accordance with my spiritual values.	3.0	3.5	2.0	3.0	4.0	4.0
My approach to life is driven by my desire to stay connected with the sacred presence in my life.	2.0	4.0	2.0	4.0	2.0	4.0
My connection with the sacred helps me understand difficulties in life.	3.5	4.0	3.0	4.0	4.0	4.0

Item	<i>M</i>		Min		Max	
	Form Quality	Content Quality	Form Quality	Content Quality	Form Quality	Content Quality
I believe my spirituality positively contributes to my well-being.	3.5	4.0	3.0	4.0	4.0	4.0
I believe my spirituality negatively contributes to my well-being.	3.5	4.0	3.0	4.0	4.0	4.0
My spirituality provides emotional comfort in my daily life.	3.5	4.0	3.0	4.0	4.0	4.0
I feel the presence of a spiritual force in my life.	3.0	4.0	2.0	4.0	4.0	4.0
I desire to be closer to the source of my spirituality.	3.5	4.0	3.0	4.0	4.0	4.0
Within my spiritual tradition, I meditate in an effort to persevere my relationship with the sacred.	4.0	3.5	4.0	3.0	4.0	4.0
Within my spiritual tradition, I pray in an effort to persevere my relationship with the sacred.	4.0	3.5	4.0	3.0	4.0	4.0
I feel I am being punished for a lack of spirituality.	3.5	4.0	3.0	4.0	4.0	4.0
I rely on my spirituality to help me understand stressful situations.	4.0	4.0	4.0	4.0	4.0	4.0
I rely on my spirituality to help me deal with stressful situations.	3.5	4.0	3.0	4.0	4.0	4.0
I try hard to carry my spiritual beliefs over into all my other dealings in life.	2.5	4.0	2.0	4.0	3.0	4.0
I believe events in my life unfold according to a greater plan.	3.5	4.0	3.0	4.0	4.0	4.0
My spirituality provides a sense of direction in my life.	4.0	4.0	4.0	4.0	4.0	4.0
My spirituality is a source of frustration for me.	3.5	4.0	3.0	4.0	4.0	4.0
I am discontent with my spiritual development.	3.0	3.5	3.0	3.0	3.0	4.0
I feel insecure in my connection with what/who is sacred in my life.	3.5	3.5	3.0	3.0	4.0	4.0
I feel secure in my connection with what/who is sacred in my life.	3.5	3.5	3.0	3.0	4.0	4.0
I sense the presence of something sacred/transcendent in my life.	2.5	4.0	2.0	4.0	3.0	4.0



Item	<i>M</i>		Min		Max	
	Form Quality	Content Quality	Form Quality	Content Quality	Form Quality	Content Quality
I feel emotionally close to what/who is sacred in my life.	3.0	3.5	2.0	3.0	4.0	4.0
My spirituality often causes me to have negative feelings about myself.	3.5	3.5	3.0	3.0	4.0	4.0
My spirituality often causes me to have positive feelings about myself.	3.5	3.5	3.0	3.0	4.0	4.0
My spirituality provides meaning to my life experiences.	3.5	4.0	3.0	4.0	4.0	4.0
I engage in spiritual practices to strengthen my spirituality.	3.5	4.0	3.0	4.0	4.0	4.0
I believe it is important to pursue connection with what/who is sacred in my life.	3.0	4.0	2.0	4.0	4.0	4.0
Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	3.0	4.0	3.0	4.0	3.0	4.0
Spiritual practices increase my awareness of areas in my life that need improvement.	4.0	4.0	4.0	4.0	4.0	4.0
Spiritual beliefs guide my way of life.	3.5	4.0	3.0	4.0	4.0	4.0
Through my actions, I strive for spirituality to be an important part of who I am.	2.5	3.5	2.0	3.0	3.0	4.0
My spirituality causes frustration in my daily life.	3.5	4.0	3.0	4.0	4.0	4.0
When engaging in spiritual practices (i.e., prayer, meditation, worship, rituals, etc.), I experience inner peace.	3.5	4.0	3.0	4.0	4.0	4.0
My spirituality inspires a sense of awe during daily life.	3.0	3.5	2.0	3.0	4.0	4.0
My spirituality is a guiding presence in my daily life.	3.5	4.0	3.0	4.0	4.0	4.0
My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	4.0	4.0	4.0	4.0	4.0	4.0
I have a hard time reconciling life's difficulties with my spiritual beliefs.	3.0	3.5	3.0	3.0	3.0	4.0

Item	<i>M</i>		Min		Max	
	Form Quality	Content Quality	Form Quality	Content Quality	Form Quality	Content Quality
Because of my spirituality, I have a hard time accepting who I am.	4.0	3.5	4.0	3.0	4.0	4.0
I feel guilty when I doubt my spiritual belief system.	3.5	4.0	3.0	4.0	4.0	4.0
Pursuing connection with the source(s) of my spirituality is important to me.	4.0	4.0	4.0	4.0	4.0	4.0
I believe my relationship with a spiritual presence is central to my spiritual development.	2.5	4.0	2.0	4.0	3.0	4.0
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	4.0	4.0	4.0	4.0	4.0	4.0
I strive for my actions to align with my spiritual purpose in life.	3.5	3.5	3.0	3.0	4.0	4.0
In order to maintain my connection with the sacred, I live my life in accordance with my spiritual purpose.	2.5	3.5	2.0	3.0	3.0	4.0
My spirituality provides meaning to my day to day activities.	4.0	4.0	4.0	4.0	4.0	4.0
I gain a deeper understanding of my spirituality when I face emotional suffering.	3.0	4.0	2.0	4.0	4.0	4.0
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	4.0	4.0	4.0	4.0	4.0	4.0
When I face spiritual struggles, I feel disconnected from the sacred presence in my life.	3.0	4.0	2.0	4.0	4.0	4.0
I gain my understanding of the world from my spiritual journey.	3.5	3.5	3.0	3.0	4.0	4.0
I feel a deeper sense of connection with the sacred presence in my life because of the difficulties I face in life.	3.0	4.0	2.0	4.0	4.0	4.0
I experience sacred connection when I engage in spiritual practices (i.e. meditation, prayer, rituals, music, etc.).	3.0	4.0	2.0	4.0	4.0	4.0

Item	<i>M</i>		Min		Max	
	Form Quality	Content Quality	Form Quality	Content Quality	Form Quality	Content Quality
When I overcome challenges in life and grow spiritually, I feel a stronger sense of purpose.	3.0	3.0	2.0	2.0	4.0	4.0

## Appendix E

### External Review Documents

#### External Review Initial Contact Email Template

##### **Greeting.**

My name is Valerie Hoots. I am pursuing a PhD in Psychology at East Tennessee State University. **Blank person** encouraged me to contact you based on your expertise in **blank area**. I am currently in the process of developing a spirituality measure for my thesis project. As part of the instrument development process, I am seeking feedback from professionals from a variety of areas of expertise (namely, mental health, physical health, spiritual leadership/support, spirituality research, health research, and instrument development) to participate in an external review of the items that have been developed thus far for the spirituality measure. This review will take place electronically and will involve three structured feedback ratings for each of the items in the item pool, as well as an opportunity to provide qualitative feedback on each item (55 total items). I suspect this review will take approximately 2 hours to complete. The ratings reviewers provide will be anonymous. While I am unable to offer monetary compensation, all reviewers will be cited in my thesis manuscript and acknowledged in any future publication on the development of this instrument.

As a point of reference, spirituality, in this context, is understood to be one's search for and connection with whatever he/she identifies as sacred in his/her life. The overall aim is to develop a spirituality measure that can eventually be used in healthcare settings and allows for measurement of spirituality from a broad framework that may or may not be tied to a religious and/or theistic belief system.

If you find interest in this project and would like to join this effort, please respond to this email indicating your participation at your earliest convenience. Once I hear back from you, I will email instructions for accessing items and detailed information on the review procedure.

Thank you for your time and consideration,

Valerie M. Hoots, MA  
Graduate Assistant  
Psychology Department  
East Tennessee State University

## External Review Email with REDCap Access Link

### **Greeting.**

Thank you for your willingness to donate your time! Attached you will find an information sheet that provides information to guide you through the review. Please reference this information sheet throughout the review. The link provided below will grant you access to the pool of items and direct you to the electronic review. During the review, you will be asked to provide a participant identification number, please enter a random number of your choosing. For your records, please note your chosen number; however, to protect anonymity, I do not need to know this number.

If possible, please complete the review by **Blank Date**. You will have the ability to work on the review at your pace within this time frame. Once you begin the electronic review, there is an option to save your work and return later. Upon clicking this option, you will be provided a “return code.” If you choose to use this option, you **must** write down the return code provided. The return code will allow you to access your review at a later time. Without the return code, you will be unable to access previously saved work.

If you would like to be acknowledged by name in any resulting publications, please send me an email after completing the review to notify me of your participation.

Click here to begin the review: **[https://is.gd/externalreview\\_spirituality](https://is.gd/externalreview_spirituality)**

Please let me know if you have any questions along the way.

Thank you in advance for your feedback!

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## External Review Information Sheet for Reviewers

For the purposes of this review, you will be asked to evaluate items for a spirituality measure that I am developing. This review entails structured feedback in the form of three independent ratings and qualitative feedback on potential item bias and suggested improvements. Please read this document carefully and use it as a guide for your review. Key definitions are outlined on page 3. Key characteristics of the spirituality measure are provided on page 2.

### **Rating 1: Quality of Item based on Readability**

For this rating, you will be asked to assess the readability of the item based on clarity and adherence to an 8<sup>th</sup> grade reading level. You will rate the form quality of each item based on the following scale: 1 = poor quality, 2 = fair quality, 3 = good quality, 4 = excellent quality.

### **Rating 2: Quality of Alignment with Overall Spirituality Construct**

For this rating, you will be asked to assess appropriateness of each item with regards to its match with the overall spirituality construct as specified for this measure (defined on page 3). You will be asked to rate degree of match based on the following scale: 1 = poor quality, 2 = fair quality, 3 = good quality, 4 = excellent quality.

### **Rating 3: Degree of Match between Item and Specified Content Area**

For this rating, you will be asked to identify the degree of match between each item and the specified content area. For the purposes of this measure, there are three core aspects of spirituality: Discovery, Conservation, and Transformation (category definitions outlined on page 3). You will be asked to rate degree of match based on the following scale: 1 = poor match, 2 = fair match, 3 = good match, 4 = excellent match.

### **Item Bias Check**

You will be asked to indicate whether each item possesses potential item bias (i.e., demographic bias). You will indicate item bias by checking the box provided. If you indicate item bias, please explain potential biases you notice in the designated area within the review.

### **Qualitative Feedback**

For any item that is given a rating of  $\leq 2$  ('poor' or 'fair'), please provide information on areas of weakness and suggestions for improvement. Additionally, please feel free to use this space to make note of any additional feedback you may have.

### ***Measure Characteristics***

Please keep the following information in mind as you review the pool of items.

- The aim is to measure spirituality using an existing theoretical framework (Pargament, 2013); while allowing measurement of spirituality that may not be associated with theism.
  - The end goal is to measure nontheistic spirituality.
  - Participants will be asked to provide their frame of reference (i.e., religious belief system and/or spiritual beliefs) using a structured checkbox format prior to responding to survey items.

- The final measure will consist of approximately 18-20 items.
- All items are anchored on a 4-point rating scale (content of anchors vary based on item), with the option for participants to mark “I don’t understand the question”
- Participants will be given the following set of instructions:
  - “This survey intends to measure spirituality. Spirituality, for the purposes of this survey, is defined as your search for, and/or connection with whatever you deem sacred and/or transcendent in your life. Therefore, references to ‘sacred’, ‘spiritual force’, ‘spiritual presence’, and ‘transcendent’ should be interpreted as the source of your spirituality according to your personal belief system and may or may not relate to a Higher Power, God, gods, nature, Supreme Being, etc. Spirituality, for the purposes of this measure, may or may not be tied to a religious belief system. Please read each item carefully and respond according to how you typically experience your spirituality.

### ***Key Definitions***

Please reference the following definitions as you evaluate items.

- **Rating 2: Definition of Spirituality:**
  - One’s search for and connection with the sacred (Pargament, 2013).
  - Spirituality may or may not be associated with a religious or theistic belief system.
  - Spirituality is viewed as a motivation and life-long journey entailing three key processes: discovery, conservation, and transformation (Pargament, 2013).
- **Rating 3: Item Content Area Definitions**
  - **Discovery:** The motivation to discover what is sacred in our lives. According to Pargament (2013), the process of discovery may involve any or all of the following:
    - Personal investment in search for and pursuit of the sacred and/or sacred aspects of life
    - Emotion evoked from perception of the sacred
    - The process of gaining internal strength (i.e., sense of fulfillment and/or support) from aspects of life that are deemed sacred
    - Deriving a guiding framework from pursuit of the sacred that gives a sense of meaning/purpose to other areas of life (i.e., other goals and motivations) (p. 262).
  - **Conservation:** Spiritual pathways used to maintain and preserve connection with the sacred. According to Pargament (2013), the process of conservation may include any or all of the following spiritual pathways:
    - practices— for example worship, rituals, prayer, meditation, music, etc.
    - knowledge— for example reading/studying sacred/spiritual texts/readings, scientific inquiry, etc.
    - experiences— for example prayer, worship, meditation, mindfulness, walks in nature, etc.
    - relationships— for example engagement with a spiritual community

- coping—for example support derived from a spiritual community, rituals, inner strength derived from sacred, etc. (pp. 262-264).
- **Transformation:** Changes in a person’s understanding of themselves, their purpose in life, the world, and/or the sacred (or sacred aspects of their life) as a result of spiritual struggles (Pargament, 2013).
  - Spiritual struggles entail interpersonal, intrapersonal, and divine struggles that center around spiritual issues, internal conflicts, doubts, questions, and/or feelings of disconnection from sacred (or sacred aspects of life) (Pargament, 2013, pp. 265-266).

Key Reference:

Pargament, K. I., (2013). Searching for the sacred: Towards a nonreductionistic theory of spirituality. In K. I. Pargament, J. J. Exline, & J.W. Jones (Eds.), *APA Handbook of psychology, religion, and spirituality* (pp. 257-273). Washington, DC: American Psychological Association



External Review Format: Sample items from REDCap Survey

**Participant ID** \_\_\_\_\_

**Area of Expertise (Check all that apply)**

- Mental Health
- Physical Health
- Spiritual Leadership/Support
- Spirituality Research
- Health Research
- Instrument Development
- Other

**Item 1**

I believe that maintaining my spirituality should be a priority.

Rate the quality of this item based on readability.	Poor quality	Fair quality	Good quality	Excellent quality
Rate the quality of this item based on alignment with overall <b>spirituality</b> construct.	Poor quality	Fair quality	Good quality	Excellent quality
Indicate degree of match between item and <b>conservation</b> content area.	Poor match	Fair match	Good match	Excellent match
If item bias is present, check here.				
<i>If checked, please explain:</i>				
Please provide feedback on any 'fair' or 'poor' ratings given above. Please include suggestions for improvement.				

**Item 2**

My spirituality provides a framework for understanding my life's purpose.

Rate the quality of this item based on readability.	Poor quality	Fair quality	Good quality	Excellent quality
Rate the quality of this item based on alignment with overall <b>spirituality</b> construct.	Poor quality	Fair quality	Good quality	Excellent quality
Indicate degree of match between item and <b>discovery</b> content area.	Poor match	Fair match	Good match	Excellent match
If item bias is present, check here.				
<i>If checked, please explain:</i>				
Please provide feedback on any 'fair' or 'poor' ratings given above. Please include suggestions for improvement.				

*Note:* Items 3-55 followed the same format as outlined above for items 1 and 2.

**In your opinion, is there anything that I have left out with regards to the specified construct of spirituality?**

## Appendix F

### Phase 3: Feedback and Item Modifications from External Review

Table F1

*Phase 3: Item Revisions*

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I believe that maintaining my spirituality should be a priority.	Conservation	<p><b>Reviewer 2:</b> I am struggling with the word 'priority' as far as readability. What does that mean - priority in what? life, work, home only certain aspects or all?. As for the spirituality construct, in the conservation area, I am not sure that we are looking at the 'should' aspect. If spirituality is internal, who is mandating this 'should' happen? The conservation aspect appears to incorporate what the person does, not why they do it or what motivates them. [4;1]</p> <p><b>Reviewer 8:</b> 'I believe' leads me to expect an item that is more general, like 'I believe that maintaining spirituality should be a priority' (for people in general). If the item is about the individual completing the survey, personally, then more direct (less conditional) wording might be more appropriate, such as 'Maintaining spirituality is a priority for me.' [4]</p>	I believe it is important to stay connected with what is sacred in my life.	Replaced the word 'priority' with 'important' to address reading level concerns. Modified item stem to align closer with sacred connection aspect of spirituality conceptualization. Modifications to item stem reduced reading level from 11.9 to 6.7.
My spirituality provides a framework for understanding my life's purpose.	Discovery	None	My spirituality helps me understand my purpose in life.	Revision to item stem based on reading level of original item (14.2). Revised item reading level is 8.3

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
Believing in spiritual things is very important to me.	Discovery	<p><b>Reviewer 1:</b> It kind of seems that the phrase 'spiritual things' is an oxymoron. Doesn't spirituality have to do with the non-material? Might want to choose another term. In fact, I generally dissuade the use of 'things' - in almost any context - it is too nonspecific. I'm not sure I see the discovery quality in this - what is the 'doing of it'? [4]</p> <p><b>Reviewer 4:</b> Phrasing of this item is obscure; spiritual 'things' is not clear and is too broad; maybe rephrasing to read something such as 'My spiritual beliefs are very important to me' would be better since it refers to something specific for the person. [4]</p> <p><b>Reviewer 7:</b> I would have concern that people may interpret 'things' very differently and/or not understand enough to answer definitively. [4]</p>	Deleted item	Form rating and category match rating less than 3.0 (indicating poor quality).

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I believe in a spiritual presence who/that provides a purpose for my life.	Discovery	<p><b>Reviewer 1:</b> Maybe I'm not getting the discovery notion but this sounds to me like it is something that is already discovered. In general it seems that I am having a hard time differentiating the process of discovery from what has already been discovered. I'm not sure if that is important to you or not but it seems to be confusing me. If it has been discovered should I score it as belonging in the process of discovery? [1]</p> <p><b>Reviewer 8:</b> I would keep this more general with '... presence that,' (i.e., eliminate the 'who', which may be leading toward a 'Higher Power,' etc.). [2]</p>	I believe in a spiritual presence that provides a purpose for my life.	Removed reference to “who” to reduce potential theistic item bias. Reading level remains at 6.7.
I perform spiritual practices to stay close to what is sacred in my life.	Conservation	<b>Reviewer 10:</b> I wonder about another verb besides ‘perform.’ [4]	I engage in spiritual practices to stay close to what is sacred in my life.	Replaced word “perform” with “engage in” to avoid connotation associated with performance. Reading level of revised item is 5.9.
I believe life’s ups and downs are all part of my spiritual journey.	Transformation	None	No revision	N/A

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	Conservation	<p><b>Reviewer 2:</b> I think this may be looking at 'coping' under conservation. I am struggling a bit with the connection based upon this definition. Spiritual pathways used to maintain and preserve connection with the sacred. [1]</p> <p><b>Reviewer 3:</b> Option to not include 'should' includes ...'I rely on my spiritual beliefs to make a decision.' [Reviewer indicated potential item bias and provided item bias feedback: "Slightly concerned re. use of 'should.'" [4]</p> <p><b>Reviewer 8:</b> I would suggest to replace 'spiritual beliefs' with 'spirituality.' I believe this change would make the item more general. Spiritual 'beliefs' may confound with 'religious beliefs.' [2]</p>	I rely on my spirituality to help me make major life decisions.	Reworded item stem to remove word "should" and potential religious (i.e., replaced 'spiritual beliefs' with 'spirituality') verbiage. Modification to item stem decreased reading level from 9.6 to 8.7.
I believe spiritual struggles are an important component of my personal growth.	Transformation	<p><b>Reviewer 2:</b> Component jumps out to me as perhaps too big of a word. [6]</p> <p><b>Reviewer 5:</b> Additional clarification for 'spiritual struggles' may make this question more readable. [5]</p> <p><b>Reviewer 6:</b> I believe personal struggles are an important component of my spiritual growth. [4]</p>	I believe personal struggles are an important part of my spiritual growth.	Revision to wording of item stem (i.e., replaced "component" with "part") to reduce reading level. Changed "spiritual struggles" to "personal struggles" to align with Pargament's (1999) broad framework for spiritual struggles. Revision to item stem reduces reading level from 10.7 to 8.7.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I feel strongly connected to a force outside of myself.	Discovery	<p><b>Reviewer 2:</b> The word force seems too vague. [4]</p> <p><b>Reviewer 3:</b> Unsure of use of word 'force.' Is there a less potentially charged word? [4]</p> <p><b>Reviewer 6:</b> I feel strongly connected to a force or energy outside of myself. [4]</p> <p><b>Reviewer 10:</b> Consider making it 'spiritual force' rather than 'force.' [4]</p>	Deleted item.	Deleted item due to multiple concerns with the word 'force' in this item stem. Attempts to replace this word result in more theistic-based verbiage and/or increased vagueness of the item.
I try to live my life in a way that lines up with my spiritual values.	Conservation	<p><b>Reviewer 8:</b> Good item, but 'lines up' sounds awkward. Consider 'aligns' or 'matches.' [4]</p> <p><b>Reviewer 10:</b> Consider omitting 'my life'--seems redundant with 'live.' [4]</p>	I try to live in a way that aligns with my spiritual values.	Removed "my life" and changed "lines up" to "aligns" to improve readability. Revision to item increases reading level from 4.6 to 4.9.
My bond with the sacred helps me understand difficulties in life.	Conservation	<p><b>Reviewer 9:</b> I think this could also match with transformation. [1]</p> <p><b>Reviewer 10:</b> I wonder if the question is about understanding difficulties in my life or difficulties in my life and the lives of others. [5]</p>	No revision made.	No revision made to item. Acknowledge the potential for this item to double load on conservation and transformation aspects of spirituality.
I feel inner spiritual strength when facing challenges in life.	Transformation	<p><b>Reviewer 8:</b> Is 'inner spiritual' as opposed to 'outer spiritual'? To me 'inner' is 'spiritual.' Just a thought. [4]</p> <p><b>Reviewer 9:</b> Overlap with conservation. [1]</p>	I feel spiritual strength when facing challenges in life.	Removed word 'inner' because it is not an essential word in the item stem. Revision moved reading level from 7.1 to 6.2. Acknowledge the potential for this item to double load on conservation and transformation.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I believe being spiritual improves my health.	Conservation	<p><b>Reviewer 1:</b> Seems like it presupposes conservation but doesn't indicate it in any way in the item other than being spiritual. [1]</p> <p><b>Reviewer 2:</b> While this is a good question, I'm not sure it falls under the spirituality construct. Still thinking about this. [1]</p> <p><b>Reviewer 4:</b> Phrasing may be obscure; maybe 'I believe my spiritual practices improve my health' would be better? [4]</p> <p><b>Reviewer 5:</b> The word 'being' seems potentially broad, as someone may consider themselves spiritual but not maintain their spirituality through conservation. 'I believe practicing my spirituality improves my health,' may be less broad. [4]</p> <p><b>Reviewer 7:</b> I assume this means my physical health but it isn't clear. [4]</p> <p><b>Reviewer 9:</b> Could you rephrase it, 'I believe that being spiritual contributes to my overall health.'? Otherwise, it sounds causal. [4]</p>	Deleted item	Category match rating below 3.0 (indicating poor match) and qualitative feedback suggesting it to be a poor match with overall spirituality construct.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I believe being spiritual is bad for my health.	Conservation	<p><b>Reviewer 1:</b> Same comment as previous item. [1]</p> <p><b>Reviewer 2:</b> Think this may be two constructs here and not one. But may be missing something you are thinking. It seems to be looking at motivation for spirituality.... are we looking for that? [1]</p> <p><b>Reviewer 4:</b> Again, rephrasing to read 'I believe my spiritual practices are bad for my health' could be better. [4]</p> <p><b>Reviewer 5:</b> 'Being' spiritual may be broad, as someone may be spiritual but not truly maintain their spirituality. 'I believe practicing my spirituality is bad for my health' may be less broad. [4]</p> <p><b>Reviewer 7:</b> Again, there is an assumption that this is referring to physical health but isn't stated. [5]</p> <p><b>Reviewer 9:</b> This item is oddly worded. It seems only people who are not spiritual would say that spirituality is bad for one's health. Is this what you are trying to capture, or do you seek to find those who are spiritual even though they believe their own spirituality is bad their health[4]</p>	Deleted item	Category match rating below 3.0 (indicating poor match) and qualitative feedback suggesting it to be a poor match with overall spirituality construct.



Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
My spirituality is a source of comfort.	Conservation	<p><b>Reviewer 2:</b> Same concern here....I believe this would be under coping. Just not following the connection. Conservation is the spiritual pathways used to maintain and preserve connection with the sacred. [1]</p> <p><b>Reviewer 5:</b> This question may also assess for discovery, as it is deemed as the process of gaining internal strength. [1]</p> <p><b>Reviewer 10:</b> I'm sure it's understood, but I'd prefer 'My spirituality is a source of comfort for me.' [4]</p>	My spirituality is a source of comfort for me.	<p>Added “for me” to item stem to increase specificity. Reading level of revised item stem is 6.2. Acknowledge the potential for this item to double load on conservation discovery.</p>
I feel the presence of a spiritual force in my life.	Discovery	<p><b>Reviewer 3:</b> Again, 'force.' I don't have a recommendation for another word, but it is a strong word. [4]</p> <p><b>Reviewer 10:</b> This may be as intended, but I read this as I feel at this moment the presence of a spiritual force in my life. Other questions that may also be considered-- I routinely feel the presence... or I have consistently felt the presence... [3]</p>	I feel a spiritual presence in my life on a regular basis.	<p>Removed the word “force” and replaced it with the phrase “spiritual presence” to address concern of vagueness in this item. Added temporal framework “on a regular basis” to align with aim to measure spirituality as a stable trait. Reading level of revised item stem is 6.7. With added temporal reference in the item stem, revision to response anchors: <i>strongly disagree</i> to <i>strongly agree</i>.</p>

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I desire to be closer to the source of my spirituality.	Discovery	<b>Reviewer 4:</b> Could be rephrased to read 'I desire to be closer to the object of my spiritual belief.' Could also be rephrased to read 'I desire to practice my spirituality more devoutly.' It is difficult to tell which question is your intention. [5]	No revision	No revision was made to item stem based on quantitative ratings indicating good or excellent item form. This review was the outlier and suggestions for revision did not align closely with spirituality construct.
Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.	Conservation	<b>Reviewer 3:</b> 'Preserve,' or 'maintain' or 'strengthen'? [4]  <b>Reviewer 6:</b> I meditate as a part of my spiritual tradition. [4]  <b>Reviewer 8:</b> 1) The leading phrase could be omitted. Start the item with 'I meditate ....' Makes it clearer. 2) However, this could also relate to 'discovery,' depending on the person's extent of experience with spiritual practices. [4;1]	I meditate to maintain my relationship with the sacred.	Removed leading phrase and changed word "preserve" to "maintain" to improve readability. Revision reduced reading level from 12.0 to 8.8.
Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.	Conservation	<b>Reviewer 3:</b> Same as previous questions. 'Preserve' vs. maintain or strengthen/deepen. [4]  <b>Reviewer 6:</b> Within my spiritual tradition, I engage prayer or meditation to connect with myself and the sacred. [4]  <b>Reviewer 8:</b> Again, I would skip the leading phrase. [4]  <b>Reviewer 9:</b> I am not certain if the term 'prayer' might run counter to your goal of creating a measure of nontheistic spirituality. [2]	Deleted item	Removed item based on repetition with previous item, with the exception of word "pray" which as one reviewer pointed out may cause item to have a theistic bias.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I feel I am being punished for a lack of spirituality.	Transformation	<p><b>Reviewer 4:</b> Could be rephrased to read 'I feel I am punished for my lack of spiritual practice.' [4]</p> <p><b>Reviewer 6:</b> I am not sure of the reason for this question and the punished is a poor word choice. [4]</p> <p><b>Reviewer 8:</b> Too vague. [5]</p>	Deleted item	Form rating below 3.0 (indicating poor quality).
I rely on my spirituality to help me understand stressful situations.	Transformation	<p><b>Reviewer 9:</b> 'Understand' sounds very cognitive. Might it be better to say 'make meaning out of' or 'to help me put stressful situations into perspective.'? [4]</p>	Deleted item	Deleted item due to overlap with subsequent item.
I rely on my spirituality to help me deal with stressful situations.	Transformation	<p><b>Reviewer 5:</b> This also seems close to 'coping' found under Conservation. [1]</p> <p><b>Reviewer 6:</b> Same question as previous page. [8]</p> <p><b>Reviewer 9:</b> Overlap with conservation? [1]</p>	No revision to item. Revision to classification.	Reclassification of item to conservation based on coping framework within conservation aspect of spirituality construct. Revision to response anchors to increase alignment with wording with item stem (changed anchors to: <i>not at all to a great deal</i> (Original anchors: <i>not at all like me to very much like me</i> ).
I believe events in my life happen according to a greater plan.	Discovery	<p><b>Reviewer 1:</b> I suppose the idea of the sacred it implied in this but I'm not quite sure. [5]</p>	No revision	No revision made as sacred component is implied within the item.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
My spirituality guides the direction of my life.	Discovery	<b>Reviewer 1:</b> Agree it is probably more discovery than transformation but seems kind of close. No indication of the struggle aspects of transformation. [1]	No revision	No revision made. Mean quantitative rating of category match for this item is 3.5 indicating good match with discovery aspect of spirituality construct.
My spirituality is a source of frustration for me.	Transformation	<b>Reviewer 7:</b> This may have time constraints. A participant may feel conflicted answering this question if they feel frustrated currently but haven't in the past or vice versa. [3]  <b>Reviewer 9:</b> It's harder to imagine what nontheistic spiritual frustration would look like (as compared to 'wanting but not being right with God'). [2]	My spirituality is often a source of frustration for me.	Revised item to include a temporal aspect (i.e., 'often') to align with aim to measure spirituality as a stable trait. Reading level of revised item stem is 8.3.
I am not happy with my spiritual development.	Transformation	<b>Reviewer 1:</b> Might be tough for people to know what spiritual development is. Is this transformation or discovery? [6;1]  <b>Reviewer 3:</b> 'Development,' or growth or progress? [4]  <b>Reviewer 8:</b> Avoid negatives. Replace 'not happy' with 'unhappy.' [4]  <b>Reviewer 9:</b> Overlap with discovery for someone who hasn't before considered this aspect of life? [1]	I am unhappy with my spiritual journey thus far.	Removed negative ("not") and replaced "spiritual development" with "spiritual journey" to enhance readability. Revisions to item reduced reading level from 8.1 to 6.2. Revision of response anchors to different type of agreement scale ( <i>strongly disagree</i> to <i>strongly agree</i> ) to align more closely with item stem (original response anchors: <i>not true of me</i> to <i>very true of me</i> ).

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I feel unsure about my relationship with what/who is sacred in my life.	Transformation	<p><b>Reviewer 1:</b> Just not sure of the transformation quality of it. [1]</p> <p><b>Reviewer 2:</b> But could this also be discovery? [1]</p> <p><b>Reviewer 8:</b> Delete the '.../who'. [2]</p>	I feel unsure about my relationship with what is sacred in my life.	Removed reference to 'who' to minimize potential theistic item bias. Reading level remains at 6.7 after revision. Acknowledge the potential for this item to double load on transformation and discovery.
I feel confident about my relationship with what/who is sacred in my life.	Conservation	<p><b>Reviewer 5:</b> This question seems to better assess for discovery, as the emotion evoked from personal perception. [1]</p> <p><b>Reviewer 8:</b> Delete the '.../who'. [2]</p>	I feel confident about my relationship with what is sacred in my life.	Removed reference to 'who' to minimize potential theistic item bias. Reading level after revision is increased from 7.5 to 7.6. Acknowledge the potential for this item to double load on conservation and discovery.
I feel emotionally close to what/who is sacred in my life.	Discovery	<p><b>Reviewer 1:</b> I said good match but these last three items seem to me to all be possible to score in any of the three categories. I guess the factor analysis might decide it! [1]</p> <p><b>Reviewer 8:</b> Delete the '.../who'. [2]</p>	I feel emotionally close to what is sacred in my life.	Removed reference to 'who' to minimize potential theistic item bias. Reading level remains at 5.8.
My spirituality often causes me to have negative feelings about myself.	Transformation	None	My spirituality often causes me to be hard on myself.	Revised item due to reading level. Revision reduced reading level from 12.3 to 8.3. With temporal reference in stem, response anchors were changed to agreement scale ( <i>not true of me to very true of me</i> ) from original frequency scale.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
My spirituality often causes me to have positive feelings about myself.	Conservation	<p><b>Reviewer 1:</b> Is transformation only negative? That seems to be the difference between this one and the last one but this one is rated on conservation. [1]</p> <p><b>Reviewer 2:</b> Why would this be conservation and the previous question be transformation? [1]</p> <p><b>Reviewer 5:</b> This question seems better suited to measure discovery, specifically emotions evoked. [1]</p> <p><b>Reviewer 9:</b> Overlap with discovery? [1]</p>	I am kind to myself because of my spirituality.	Item stem revision to reduce reading level (original item was 12.3). Reading level of revised item stem is 7.5. Revision to reduce reading level resulted in item aligning more closely with conservation aspect of spirituality construct. Response anchors were changed from a frequency scale to agreement scale to better align with item stem (revised anchors: <i>not true of me</i> to <i>very true of me</i> )
My spirituality provides meaning to my life experiences.	Discovery	<p><b>Reviewer 3:</b> 'Provides' or gives? [4]</p> <p><b>Reviewer 4:</b> Could be rephrased to read 'My spiritual practice gives meaning to my life,' or 'My spirituality provides interpretation for my life experiences,' and it's difficult to tell your intention. [4;5]</p> <p><b>Reviewer 8:</b> I would delete 'experiences' and just stick with 'life.' [4]</p>	My spirituality gives meaning to my life.	Changed word 'provide' to 'gives' and removed the word 'experiences' to enhance readability and clarity of item. Revision of item stem reduced reading level from 11.1 to 7.3.
I engage in spiritual activities to strengthen my spirituality.	Conservation	<p><b>Reviewer 8:</b> The repetition makes this awkward. One of these ('spiritual' or 'spirituality') should be replaced with a synonym. [4]</p>	I use spiritual activities to deepen my bond with sacred aspects of my life.	Removed repetition of word 'spiritual.' Item stem also required revision because reading level of original item was 14.1. Reading level of revised item stem is 8.4.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I believe it is important to pursue connection with what/who is sacred in my life.	Discovery	<b>Reviewer 8:</b> 1) Delete the '.../who'. 2) This could also relate to conservation. [2;1]	I believe it is important to pursue connection with what is sacred in my life.	Removed reference to 'who' to minimize potential theistic item bias. Reading level after revision went from 7.6 to 7.5.
Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	Conservation	<b>Reviewer 8:</b> Again that awkward repetition of 'spiritual' and 'spirituality.' [4]	Practices (such as, prayer, meditation, or worship) are key to my spiritual growth.	Removed repetition of word 'spiritual.' Item stem also required revision because reading level of original item was 13.4 Reading level of revised item stem is 8.5.
Spiritual practices increase my awareness of areas in my life that need improvement.	Conservation	<b>Reviewer 1:</b> But really, couldn't this also be transformation? [1] <b>Reviewer 2:</b> Again, this one seems to lean toward transformation to me. [1] <b>Reviewer 9:</b> It seems odd to think that spiritual practices in and of themselves lead to insight. [4]	Spiritual practices help me to be more aware of areas in my life that need improvement.	Item stem required revision because reading level of original item was 11.2. Reading level of revised item stem is 8.3. Acknowledge potential for item to double load on conservation and transformation aspects of spirituality construct.
Spiritual beliefs guide the way I live my life.	Discovery	<b>Reviewer 10:</b> Consider omitting 'my life.' [4]	No revision	Suggestion to remove phrase "my life" did not enhance readability.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
My spirituality causes frustration in my daily life.	Transformation	<b>Reviewer 1:</b> But again, transformation seems characterized primarily by the negative nature of the items. Maybe this is what you want but just pointing it out. [1]	Deleted item	Very similar item above that reads as follows: My spirituality is often a source of frustration for me. The content of this item is very similar; therefore, item is removed due to redundancy.
When engaging in spiritual practices (i.e., prayer, meditation, worship, etc.), I experience inner peace.	Conservation	<b>Reviewer 3:</b> Important item, but wordy. [4]  <b>Reviewer 7:</b> This may have time constraints for some participants. It may be felt sometimes, not necessarily all the time. [3]  <b>Reviewer 10:</b> Consider changing 'i.e.' to 'such as.' [4]	I experience inner peace when I engage in spiritual practices.	Item stem required revision because reading level of original item was 13.4. Reading level of revised item stem is 8.3. Removed examples of spiritual practices, as this will be included in the set of instructions given to respondents. Temporal aspect of item will be addressed by response anchors which are as follows: <i>I never do</i> to <i>I always do</i> .
My spirituality is a guiding influence in my daily life.	Discovery	None	No revision	N/A



Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	Transformation	<p><b>Reviewer 4:</b> Could be rephrased to read 'My spiritual beliefs have caused internal struggles leading me to reject them,' or 'My spiritual belief/practice often causes me to question myself,' and it's difficult to tell your intention. [4;5]</p> <p><b>Reviewer 8:</b> Eliminate repetition of 'cause.' [4]</p>	I struggle with my spirituality which leads me to question sacred aspects of my life.	Reworded item stem and removed repetition of the word 'cause' in order to enhance readability. Revision to item stem reduced reading level from 11.7 to 8.3
My spiritual beliefs make it hard to understand why bad things happen in life.	Transformation	<p><b>Reviewer 4:</b> The intention of the question is unclear; do you want to know if I have a construct for why bad things happen, but my beliefs do not include possibility that they could happen to me? Or if bad things have happened to me that I have no spiritual context for? Or if my beliefs tell me that bad things should not happen, therefore I am feeling spiritually bereft and disconnected from reality when they do? May need a set of questions here. [5] [This reviewer indicated potential item bias providing the following feedback: "This question is causing me to feel my own bias because of my experience with believers whose theology gets broken by trauma."]</p> <p><b>Reviewer 6:</b> My spiritual beliefs help me to understand why bad things happen in my life. [4]</p>	My spirituality does not help me understand why bad things happen in life.	Revised item stem to enhance specificity and clarity. Item revision increases reading level from 6.7 to 7.6.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
Understanding where my life fits into a greater plan is a source of stress for me.	Transformation	<b>Reviewer 6:</b> I have difficulty seeing where my life fits into a greater plan or Understanding where my life fits into a greater plan is a source of comfort for me. [4]	No revision	Quantitative mean form rating is 3.0 indicating good quality and suggestion for revision removes core components of item (i.e., first suggestion removes affective component and second turns item into a positively coded item instead of negatively coded); therefore, no revision was made to item.
Because of my spirituality, I have a hard time accepting who I am.	Transformation	<b>Reviewer 6:</b> I have difficulty seeing where my life fits into a greater plan or Understanding where my life fits into a greater plan is a source of comfort for me. [4]  <b>Reviewer 8:</b> Avoid starting any item (or sentence) with 'because.' Just one of those standard English & clear writing rules. [4]	Deleted item	Form rating below 3.0 (indicating poor quality).
I feel guilty when I doubt my spiritual beliefs.	Transformation	None	No revision	N/A

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
It is important to me to find connection with the source(s) of my spirituality.	Discovery	<b>Reviewer 4:</b> Might be rephrased to read 'It is important to me to find connection with the source of my spiritual belief.' Still may appear unclear whether this means a divine being or a preacher. [4;5]	No revision	Quantitative mean quality ratings are above 3.5 indicating good to excellent quality. Acknowledge concern of vagueness; however, source(s) of spirituality will vary by respondent. Changed response scale from frequency scale to agreement response scale ( <i>strongly disagree</i> to <i>strongly agree</i> ) based on wording of item stem.
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	Discovery	None	No revision	N/A
My spirituality provides meaning to my day to day activities.	Discovery	<b>Reviewer 8:</b> Hyphenate 'day-to-day.' [Other] <b>Reviewer 10:</b> 'Provides meaning to' seems awkward to me. Consider 'give meaning to' provides meaning for.' [4]	My spirituality gives meaning in my daily life.	Made suggested revisions in order to enhance readability. Reading level of revised item is 8.1.
I grow spiritually when I go through hard emotional times.	Transformation	None	No revision	N/A
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	Transformation	None	No revision	N/A

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.	Transformation	<p><b>Reviewer 4:</b> Again the 'source' could mean the divine being or the preacher/teacher/church. Can't tell your intention. [5]</p> <p><b>Reviewer 6:</b> This is not a useful question because isn't it inherent in the doubt part? [Other]</p>	No revision	Quantitative mean quality ratings are above 3.0 indicating good quality and the qualitative feedback received does not align with conceptualization of spirituality construct. Acknowledge concern of vagueness; however, source(s) of spirituality will vary by respondent.
I gain my understanding of the world from my spiritual journey.	Discovery	<p><b>Reviewer 2:</b> 'through' my spiritual journey? [4]</p> <p><b>Reviewer 9:</b> I think 'my _ journey' complicates the item. [4]</p>	I gain my understanding of the world through my spiritual journey.	Revised item according to qualitative feedback from reviewer 2 to enhance clarity. Reading level of revised item remains at 6.9.
Because of challenges I face in life, I have a deeper bond with the source(s) of my spirituality.	Transformation	<b>Reviewer 8:</b> Turn this around to avoid the 'because' at the beginning. [4]	I have a deeper bond with the sacred because of the challenges I face in life.	Revised item according to qualitative feedback from reviewer 8 to enhance readability. Also changed phrase "the sources of my spirituality" to "the sacred" to increase specificity of what connection is impacted in this context. Reading level of revised item reduced from 8.4 to 6.1.

Item Reviewed	Specified Content Area	Qualitative Feedback	Modified Item	Rationale
I experience the sacred when I engage in spiritual practices (i.e., meditation, worship, prayer, music, etc.).	Conservation	<b>Reviewer 10:</b> Consider changing 'i.e.' to 'such as' or 'e.g.' [4]	I experience the sacred when I engage in spiritual practices.	Item stem required revision because reading level of original item was 12.7. Reading level of revised item stem is 8.3. Removed examples of spiritual practices, as this will be included in the set of instructions given to respondents.
When I overcome challenges in life, I have a stronger feeling of purpose.	Transformation	<b>Reviewer 1:</b> Not sure where the sense of sacred or transcendent is in this one. [5]  <b>Reviewer 9:</b> May or may not be attributable to spirituality. [5]	Deleted item	Item deleted due to the lack of specific reference to spirituality.

*Note.* Numeric in brackets [] indicate qualitative themes within the feedback received from reviewers. The numbers are to be interpreted as follows: [1] = loose alignment with overall spirituality construct and/or overlap among spiritual process content areas; [2] = theistic/religious underpinnings in language of item stem; [3] = items fails to address temporal aspects; [4] = word choice; [5] = item is too broad and/or vague meaning; [Other] = indicate miscellaneous comments as outlined in the manuscript.

## Appendix G

### External Review Results

Table G1

*External Review Descriptive Statistics*

Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
I believe that maintaining my spirituality should be a priority.	3.30	3.20	3.30	0.68	0.63	0.68	2	2	2	4	4	4
My spirituality provides a framework for understanding my life's purpose.	3.30	3.50	3.60	0.48	0.53	0.52	3	3	3	4	4	4
Believing in spiritual things is very important to me.	2.80	3.10	2.90	0.92	0.74	0.74	1	2	2	4	4	4
I believe in a spiritual presence who/that provides a purpose for my life.	3.00	3.50	3.30	0.67	0.71	0.82	2	2	2	4	4	4
I perform spiritual practices to stay close to what is sacred in my life.	3.20	3.50	3.60	0.42	0.53	0.52	3	3	3	4	4	4
I believe life's ups and downs are all part of my spiritual journey.	3.60	3.50	3.70	0.52	0.53	0.48	3	3	3	4	4	4
When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	3.60	3.80	3.40	0.70	0.63	0.70	2	2	2	4	4	4
I believe spiritual struggles are an important component of my personal growth.	3.10	3.80	3.80	0.74	0.42	0.63	2	3	2	4	4	4
I feel strongly connected to a force outside of myself.	3.30	3.30	3.60	0.82	0.48	0.52	2	3	3	4	4	4

Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
I try to live my life in a way that lines up with my spiritual values.	3.40	3.70	3.70	0.52	0.48	0.48	3	3	3	4	4	4
My bond with the sacred helps me understand difficulties in life.	3.30	3.80	3.60	0.48	0.42	0.52	3	3	3	4	4	4
I feel inner spiritual strength when facing challenges in life.	3.50	3.50	3.40	0.53	0.53	0.52	3	3	3	4	4	4
I believe being spiritual improves my health.	3.00	3.10	2.90	0.67	0.74	0.88	2	2	2	4	4	4
I believe being spiritual is bad for my health.	3.10	3.10	2.90	0.74	0.74	0.88	2	2	2	4	4	4
My spirituality is a source of comfort.	3.80	3.70	3.60	0.42	0.68	0.70	3	2	2	4	4	4
I feel the presence of a spiritual force in my life.	3.40	3.50	3.40	0.52	0.53	0.52	3	3	3	4	4	4
I desire to be closer to the source of my spirituality.	3.30	3.60	3.70	0.95	0.52	0.48	1	3	3	4	4	4
Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.	3.00	3.30	3.30	0.94	1.06	1.06	1	1	1	4	4	4
Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.	3.20	3.20	3.30	1.03	1.14	1.06	1	1	1	4	4	4
I feel I am being punished for a lack of spirituality.	2.90	3.10	3.20	0.99	0.99	1.03	1	1	1	4	4	4

Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
I rely on my spirituality to help me understand stressful situations.	3.50	3.60	3.70	0.53	0.70	0.48	3	2	3	4	4	4
I rely on my spirituality to help me deal with stressful situations.	3.40	3.50	3.20	0.97	0.97	1.03	1	1	1	4	4	4
I believe events in my life happen according to a greater plan.	3.50	3.60	3.60	0.53	0.52	0.52	3	3	3	4	4	4
My spirituality guides the direction of my life.	3.40	3.60	3.50	0.52	0.52	0.53	3	3	3	4	4	4
My spirituality is a source of frustration for me.	3.20	3.40	3.50	0.79	0.70	0.53	2	2	3	4	4	4
I am not happy with my spiritual development.	3.40	3.60	3.20	0.84	0.70	0.92	2	2	2	4	4	4
I feel unsure about my relationship with what/who is sacred in my life.	3.30	3.60	3.30	0.68	0.70	0.82	2	2	2	4	4	4
I feel confident about my relationship with what/who is sacred in my life.	3.40	3.60	3.30	0.70	0.70	0.82	2	2	2	4	4	4
I feel emotionally close to what/who is sacred in my life.	3.50	3.50	3.60	0.71	0.71	0.70	2	2	2	4	4	4



Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
My spirituality often causes me to have positive feelings about myself.	3.70	3.80	3.11	0.48	0.42	1.17	3	3	1	4	4	4
My spirituality provides meaning to my life experiences.	3.30	3.70	3.60	0.95	0.48	0.52	1	3	3	4	4	4
I engage in spiritual activities to strengthen my spirituality.	3.50	3.70	3.70	0.97	0.68	0.68	1	2	2	4	4	4
I believe it is important to pursue connection with what/who is sacred in my life.	3.40	3.80	3.80	0.70	0.42	0.63	2	3	2	4	4	4
Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	3.50	3.80	3.90	0.71	0.42	0.32	2	3	3	4	4	4
Spiritual practices increase my awareness of areas in my life that need improvement.	3.30	3.50	3.40	0.48	0.71	0.52	3	2	3	4	4	4
Spiritual beliefs guide the way I live my life.	3.50	3.70	3.80	0.71	0.48	0.42	2	3	3	4	4	4
My spirituality causes frustration in my daily life.	3.60	3.60	3.70	0.52	0.52	0.48	3	3	3	4	4	4
When engaging in spiritual practices (i.e., prayer, meditation, worship, etc.), I experience inner peace.	3.20	3.70	3.70	0.79	0.48	0.48	2	3	3	4	4	4

Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
My spirituality is a guiding influence in my daily life.	3.70	3.80	3.90	0.48	0.42	0.32	3	3	3	4	4	4
My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	3.10	3.50	3.70	0.74	0.53	0.48	2	3	3	4	4	4
My spiritual beliefs make it hard to understand why bad things happen in life.	3.00	3.10	3.30	0.94	0.99	.1059	1	1	1	4	4	4
Understanding where my life fits into a greater plan is a source of stress for me.	3.00	3.44	3.22	0.94	0.53	0.97	1	3	1	4	4	4
Because of my spirituality, I have a hard time accepting who I am.	2.90	3.10	3.20	1.10	0.88	0.92	1	1	1	4	4	4
I feel guilty when I doubt my spiritual beliefs.	3.60	3.70	3.90	0.52	0.48	0.32	3	3	3	4	4	4
It is important to me to find connection with the source(s) of my spirituality.	3.60	3.80	3.80	0.70	0.42	0.42	2	3	3	4	4	4
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	3.60	3.70	3.60	0.52	0.48	0.52	3	3	3	4	4	4
My spirituality provides meaning to my day to day activities.	3.30	3.70	3.89	0.95	0.48	0.33	1	3	3	4	4	4
I grow spiritually when I go through hard emotional times.	3.40	3.60	3.80	0.52	0.52	0.42	3	3	3	4	4	4

Item	<i>M</i>			<i>SD</i>			Min			Max		
	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match	Form Quality	Content Quality	Degree of Match
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	3.30	3.50	3.60	0.48	0.53	0.52	3	3	3	4	4	4
When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.	3.10	3.40	3.40	0.88	0.97	0.97	1	1	1	4	4	4
I gain my understanding of the world from my spiritual journey.	3.30	3.50	3.70	0.68	0.71	0.48	2	2	3	4	4	4
Because of challenges I face in life, I have a deeper bond with the source(s) of my spirituality.	3.30	3.60	3.80	0.68	0.52	0.42	2	3	3	4	4	4
I experience the sacred when I engage in spiritual practices (i.e., meditation, worship, prayer, music, etc.).	3.60	3.90	3.90	0.70	0.32	0.32	2	3	3	4	4	4
When I overcome challenges in life, I have a stronger feeling of purpose.	3.60	3.30	3.60	0.52	0.82	0.70	3	2	2	4	4	4

## Appendix H

### All Phases of Item Development

Table H1

*All Phases of Items Development*

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
I maintain an inner awareness of God's presence in my life.	The Spiritual Transcendence Index (Question 2)	I strive to maintain an inner awareness of the sacred presence in my life.	Deleted	Phase 2 deletion
Maintaining my spirituality is a priority for me	The Spiritual Transcendence Index (Question 5)	I believe that maintaining my spirituality should be a priority.	I believe that maintaining my spirituality should be a priority.	I believe it is important to stay connected with what is sacred in my life.
My spirituality helps me to understand my life's purpose	The Spiritual Transcendence Index (Question 7)	My spirituality provides a framework for understanding my life's purpose.	My spirituality provides a framework for understanding my life's purpose.	My spirituality helps me to understand my purpose in life.
I feel connected to a deity or deities	The RiTE Spirituality Measure (Question 6)	I desire connection with a spiritual presence.	Deleted	Phase 2 deletion
I feel belief in a deity or deities is very important.	The RiTE Spirituality Measure (Question 7)	Belief in a spiritual presence is very important to me.	Believing in spiritual things is very important to me.	Deleted
I believe in a deity or deities who has/have a purpose/plan for my life.	The RiTE Spirituality Measure (Question 8)	I believe in a spiritual presence who/that provides a purpose for my life.	I believe in a spiritual presence who/that provides a purpose for my life.	I believe in a spiritual presence that provides a purpose for my life.
I regularly perform traditional spiritual practices.	The RiTE Spirituality Measure (Question 11)	I perform spiritual practices to maintain connection with what is sacred in my life.	I perform spiritual practices to stay close to what is sacred in my life.	I engage in spiritual practices to stay close to what is sacred in my life.
I see life as a journey toward fulfillment.	The RiTE Spirituality Measure (Question 30)	I believe life's joys and challenges are all part of a journey toward spiritual fulfillment.	I believe life's ups and downs are all part of my spiritual journey.	I believe life's ups and downs are all part of my spiritual journey.

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
When I am faced with an important decision, my spirituality. [0=plays absolutely no role to 10=is always the overriding consideration]	Intrinsic Spirituality Scale (Question 3)	When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	When I am faced with an important decision, I rely on my spiritual beliefs to help me decide what I should do.	I rely on my spirituality to help me make major life decisions.
When I think of the things that help me to grow and mature as a person, my spirituality. [0= has no effect on my personal growth to 10= is absolutely the most important factor in my personal growth]	Intrinsic Spirituality Scale (Question 5)	I believe spiritual struggles are an important component of my personal growth.	I believe spiritual struggles are an important component of my personal growth.	I believe personal struggles are an important part of my spiritual growth.
I often feel strongly related to a power greater than myself.	SEI-R Spiritual Support Subscale (Question 1)	I feel strongly connected to a force outside of myself.	I feel strongly connected to a force outside of myself.	Deleted
I make a conscious effort to live in accordance with my spiritual values.	SEI-R Spiritual Support Subscale (Question 10)	I make a conscious effort to live in accordance with my spiritual values	I try to live my life in a way that lines up with my spiritual values.	I try to live in a way that aligns with my spiritual values.
My faith guides my whole approach to life	SEI-R Spiritual Support Subscale (Question 13)	My approach to life is driven by my desire to stay connected with the sacred presence in my life.	Deleted	Phase 2 deletion
To what extent to your personal beliefs help you understand difficulties in life?	WHOQOL SRPB (Question F24.4)	My connection with the sacred helps me understand difficulties in life.	My bond with the sacred helps me understand difficulties in life.	My bond with the sacred helps me understand difficulties in life.
To what extent do you feel inner spiritual strength?	WHOQOL SRPB (Question SP5)	I feel inner spiritual strength when facing challenges in life.	I feel inner spiritual strength when facing challenges in life.	I feel spiritual strength when facing challenges in life.
To what extent does faith contribute to your well-being?	WHOQOL SRPB (Question SP8.1)	I believe my spirituality positively contributes to my well-being.	I believe being spiritual improves my health.	Deleted

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
To what extent does faith contribute to your well-being?	WHOQOL SRPB (Question SP8.1)	I believe my spirituality negatively contributes to my well-being	I believe being spiritual is bad for my health.	Deleted
To what extent does faith give you comfort in daily life?	WHOQOL SRPB (Question SP8.2)	My spirituality provides emotional comfort in my daily life.	My spirituality is a source of comfort.	My spirituality is a source of comfort for me.
I feel God's presence.	MMRS DSE Subscale (Question 1)	I feel the presence of a spiritual force in my life.	I feel the presence of a spiritual force in my life.	I feel a spiritual presence in my life on a regular basis.
I desire to be closer to or in union with God	MMRS DSE Subscale (Question 4)	I desire to be closer to the source of my spirituality.	I desire to be closer to the source of my spirituality.	I desire to be closer to the source of my spirituality.
Within your religious or spiritual tradition, how often do you meditate?	MMRS Private Religious Practices Domain (Question 13)	Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.	Within my spiritual tradition, I meditate in an effort to preserve my relationship with the sacred.	I meditate to maintain my relationship with the sacred.
Within your religious or spiritual tradition, how often do you meditate?	MMRS Private Religious Practices Domain (Question 13)	Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.	Within my spiritual tradition, I pray in an effort to preserve my relationship with the sacred.	Deleted
I feel God is punishing me for my sins or lack of spirituality.	MMRS Religious/Spiritual Coping (Question 20)	I feel I am being punished for a lack of spirituality.	I feel I am being punished for a lack of spirituality.	Deleted
To what extent is your religious involved in understanding or dealing with stressful situations in any way.	MMRS Religious/Spiritual Coping (Question 23)	I rely on my spirituality to help me understand stressful situations.	I rely on my spirituality to help me understand stressful situations.	Deleted
To what extent is your religious involved in understanding or dealing with stressful situations in any way.	MMRS Religious/Spiritual Coping (Question 23)	I rely on my spirituality to help me deal with stressful situations.	I rely on my spirituality to help me deal with stressful situations.	I rely on my spirituality to help me deal with stressful situations.
I try hard to carry my religious beliefs over into all my other dealings in life.	MMRS Commitment (Question 31)	I try hard to carry my spiritual beliefs over into all my other dealings in life.	Deleted	Phase 2 deletion

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
The events in my life unfold according to a divine or greater plan.	MMRS Appendix Meaning (Question 1)	I believe events in my life unfold according to a greater plan.	I believe events in my life happen according to a greater plan.	I believe events in my life happen according to a greater plan.
I have a sense of mission or calling in my own life.	MMRS Appendix Meaning (Question 2)	My spirituality provides a sense of direction in my life.	My spirituality guides the direction of my life.	My spirituality guides the direction of my life.
My spirituality is a source of frustration for me.	Scale developer	Not applicable	My spirituality is a source of frustration for me.	My spirituality is often a source of frustration for me.
I am discontent with my spiritual development.	Scale developer	Not applicable	I am not happy with my spiritual development.	I am unhappy with my spiritual journey thus far.
I feel insecure in my connection with what/who is sacred in my life.	Scale developer	Not applicable	I feel unsure about my relationship with what/who is sacred in my life.	I feel unsure about my relationship with what is sacred in my life.
I feel secure in my connection with what/who is sacred in my life.	Scale developer	Not applicable	I feel confident about my relationship with what/who is sacred in my life.	I feel confident about my relationship with what is sacred in my life.
I sense the presence of something sacred/transcendent in my life.	Scale developer	Not applicable	Deleted	Phase 2 deletion
I feel emotionally close to what/who is sacred in my life.	Scale developer	Not applicable	I feel emotionally close to what/who is sacred in my life.	I feel emotionally close to what is sacred in my life.
My spirituality often causes me to have negative feelings about myself.	Scale developer	Not applicable	My spirituality often causes me to have negative feelings about myself.	My spirituality often causes me to be hard on myself.
My spirituality often causes me to have positive feelings about myself.	Scale developer	Not applicable	My spirituality often causes me to have positive feelings about myself.	I am kind to myself because of my spirituality.
My spirituality provides meaning to my life experiences.	Scale developer	Not applicable	My spirituality provides meaning to my life experiences.	My spirituality gives meaning to my life.

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
I engage in spiritual practices to strengthen my spirituality.	Scale developer	Not applicable	I engage in spiritual activities to strengthen my spirituality.	I use spiritual activities to deepen my bond with sacred aspects of my life.
I believe it is important to pursue connection with what/who is sacred in my life.	Scale developer	Not applicable	I believe it is important to pursue connection with what/who is sacred in my life.	I believe it is important to pursue connection with what is sacred in my life.
Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	Scale developer	Not applicable	Spiritual practices (such as prayer, meditation, worship, etc.) are central to my spiritual development.	Practices (such as, prayer, meditation, or worship) are key to my spiritual growth.
Spiritual practices increase my awareness of areas in my life that need improvement.	Scale developer	Not applicable	Spiritual practices increase my awareness of areas in my life that need improvement.	Spiritual practices help me to be more aware of areas in my life that need improvement.
Spiritual beliefs guide my way of life.	Scale developer	Not applicable	Spiritual beliefs guide the way I live my life.	Spiritual beliefs guide the way I live my life.
Through my actions, I strive for spirituality to be an important part of who I am.	Scale developer	Not applicable	Deleted	Phase 2 deletion
My spirituality causes frustration in my daily life.	Scale developer	Not applicable	My spirituality causes frustration in my daily life.	Deleted
When engaging in spiritual practices (i.e., prayer, meditation, worship, rituals, etc.), I experience inner peace.	Scale developer	Not applicable	When engaging in spiritual practices (i.e., prayer, meditation, worship, etc.), I experience inner peace.	I experience inner peace when I engage in spiritual practices.
My spirituality inspires a sense of awe during daily life.	Scale developer	Not applicable	Deleted	Phase 2 deletion
My spirituality is a guiding presence in my daily life.	Scale developer	Not applicable	My spirituality is a guiding influence in my daily life.	My spirituality is a guiding influence in my daily life.



Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	Scale developer	Not applicable	My spiritual beliefs often cause internal struggles that cause me to question my spirituality.	I struggle with my spirituality which leads me to question sacred aspects of my life.
I have a hard time reconciling life's difficulties with my spiritual beliefs.	Scale developer	Not applicable	My spiritual beliefs make it hard to understand why bad things happen in life.	My spirituality does not help me understand why bad things happen in life.
Understanding where my life fits into a greater plan is a source of stress for me.	Scale developer	Not applicable	Understanding where my life fits into a greater plan is a source of stress for me.	Understanding where my life fits into a greater plan is a source of stress for me.
Because of my spirituality, I have a hard time accepting who I am.	Scale developer	Not applicable	Because of my spirituality, I have a hard time accepting who I am.	Deleted
I feel guilty when I doubt my spiritual belief system.	Scale developer	Not applicable	I feel guilty when I doubt my spiritual beliefs.	I feel guilty when I doubt my spiritual beliefs.
Pursuing connection with the source(s) of my spirituality is important to me.	Scale developer	Not applicable	It is important to me to find connection with the source(s) of my spirituality.	It is important to me to find connection with the source(s) of my spirituality.
I believe my relationship with a spiritual presence is central to my spiritual development.	Scale developer	Not applicable	Deleted	Phase 2 deletion
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	Scale developer	Not applicable	Knowing that my life is part of a larger spiritual plan makes me feel grateful.	Knowing that my life is part of a larger spiritual plan makes me feel grateful.
I strive for my actions to align with my spiritual purpose in life.	Scale developer	Not applicable	Deleted	Phase 2 deletion

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
In order to maintain my connection with the sacred, I live my life in accordance with my spiritual purpose.	Scale developer	Not applicable	Deleted	Phase 2 deletion
My spirituality provides meaning to my day to day activities.	Scale developer	Not applicable	My spirituality provides meaning to my day to day activities.	My spirituality gives meaning in my daily life.
I gain a deeper understanding of my spirituality when I face emotional suffering.	Scale developer	Not applicable	I grow spiritually when I go through hard emotional times.	I grow spiritually when I go through hard emotional times.
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	Scale developer	Not applicable	When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	When I doubt and/or question my spiritual beliefs, I experience spiritual growth.
When I face spiritual struggles, I feel disconnected from the sacred presence in my life.	Scale developer	Not applicable	When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.	When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.
I gain my understanding of the world from my spiritual journey.	Scale developer	Not applicable	I gain my understanding of the world from my spiritual journey.	I gain my understanding of the world through my spiritual journey.
I feel a deeper sense of connection with the sacred presence in my life because of the difficulties I face in life.	Scale developer	Not applicable	Because of challenges I face in life, I have a deeper bond with the source(s) of my spirituality.	I have a deeper bond with the sacred because of the challenges I face in life.
I experience sacred connection when I engage in spiritual practices (i.e. meditation, prayer, rituals, music, etc.).	Scale developer	Not applicable	I experience the sacred when I engage in spiritual practices (i.e., meditation, worship, prayer, music, etc.).	I experience the sacred when I engage in spiritual practices.

Original Item	Source	Phase 1 Item	Phase 2 Item	Phase 3 Item
When I overcome challenges in life and grow spiritually, I feel a stronger sense of purpose.	Scale developer	Not applicable	When I overcome challenges in life, I have a stronger feeling of purpose.	Deleted

## Appendix I:

### Final Pool of Items and Classification

Table II

*Final Item Pool: Anchors, Classifications, and Reading Level*

Item Stem	Response Anchors	Content Classification	Functional Classification	Reading Level
I believe it is important to stay connected with what is sacred in my life.	Strongly disagree Disagree Agree Strongly agree	Conservation	Cognitive	6.7
My spirituality helps me understand my purpose in life.	Not at all Very little Quite a bit A great deal	Discovery	Cognitive	8.8
I believe in a spiritual presence that provides a purpose for my life.	Strongly disagree Disagree Agree Strongly agree	Discovery	Cognitive	6.7
I engage in spiritual practices to stay close to what is sacred in my life.	Never Sometimes Often Always	Conservation	Behavioral	5.9
I believe life's ups and downs are all part of my spiritual journey.	Strongly disagree Disagree Agree Strongly agree	Transformation	Cognitive	5.8
I rely on my spirituality to help me make major life decisions.	Never Sometimes Often Always	Conservation	Behavioral <sup>Cg</sup>	8.7
I believe personal struggles are an important part of my spiritual growth.	Strongly disagree Disagree Agree Strongly agree	Transformation	Cognitive	8.7
I try to live in a way that aligns with my spiritual values.	Never Sometimes Often Always	Conservation	Behavioral	4.9
My bond with the sacred helps me understand difficulties in life.	Never Sometimes Often Always	Conservation <sup>T</sup>	Cognitive	6.9

Item Stem	Response Anchors	Content Classification	Functional Classification	Reading Level
I feel spiritual strength when facing challenges in life.	Never Sometimes Often Always	Transformation <sup>C</sup>	Affective	6.2
My spirituality is a source of comfort for me.	Never Sometimes Often Always	Conservation <sup>D</sup>	Affective	6.2
I feel a spiritual presence in my life on a regular basis.	Strongly disagree Disagree Agree Strongly Agree	Discovery	Affective	6.7
I desire to be closer to the source of my spirituality.	Not true of me Slightly true of me Fairly true of me Very true of me	Discovery	Affective	6.9
I meditate to maintain my relationship with the sacred.	Never Sometimes Often Always	Conservation	Behavioral	8.8
I rely on my spirituality to help me deal with stressful situations.	Not at all Very little Quite a bit A great deal	Conservation	Affective <sup>B</sup>	8.7
I believe events in my life happen according to a greater plan.	Strongly disagree Disagree Agree Strongly Agree	Discovery	Cognitive	6.7
My spirituality guides the direction of my life.	Strongly disagree Disagree Agree Strongly Agree	Discovery	Cognitive	8.1
My spirituality is often a source of frustration for me.	Never Sometimes Often Always	Transformation	Affective	8.3
I am unhappy with my spiritual journey thus far.	Strongly disagree Disagree Agree Strongly Agree	Transformation	Affective	6.2

Item Stem	Response Anchors	Content Classification	Functional Classification	Reading Level
I feel unsure about my relationship with what is sacred in my life.	Not true of me Slightly true of me Fairly true of me Very true of me	Transformation <sup>D</sup>	Affective	6.7
I feel confident about my relationship with what is sacred in my life.	Not true of me Slightly true of me Fairly true of me Very true of me	Conservation <sup>D</sup>	Affective	7.6
I feel emotionally close to what is sacred in my life.	I never do I sometimes do I often do I always do	Discovery	Affective	5.8
My spirituality often causes me to be hard on myself.	Not true of me Slightly true of me Fairly true of me Very true of me	Transformation	Affective	8.3
I am kind to myself because of my spirituality.	Not true of me Slightly true of me Fairly true of me Very true of me	Conservation	Affective	7.5
My spirituality gives meaning to my life.	Not at all Very little Quite a bit A great deal	Discovery	Cognitive	7.3
I use spiritual activities to deepen my bond with sacred aspects of my life.	I never do I sometimes do I often do I always do	Conservation	Behavioral	8.4
I believe it is important to pursue connection with what is sacred in my life.	Strongly disagree Disagree Agree Strongly agree	Discovery	Behavioral <sup>Cg</sup>	7.5
Practices (such as, prayer, meditation, or worship) are key to my spiritual growth	Strongly disagree Disagree Agree Strongly agree	Conservation	Behavioral	8.5
Spiritual practices help me to be more aware of areas in my life that need improvement.	Never Sometimes Often Always	Conservation <sup>T</sup>	Behavioral	8.3

Item Stem	Response Anchors	Content Classification	Functional Classification	Reading Level
Spiritual beliefs guide the way I live my life.	Not true of me Slightly true of me Fairly true of me Very true of me	Discovery <sup>C</sup>	Cognitive	3.6
I experience inner peace when I engage in spiritual practices.	I never do I sometimes do I often do I always do	Conservation	Behavioral	8.3
My spirituality is a guiding influence in my daily life.	Not true of me Slightly true of me Fairly true of me Very true of me	Discovery	Affective <sup>B: Cg</sup>	8.3
I struggle with my spirituality which leads me to question sacred aspects of my life.	Never Sometimes Often Always	Transformation	Cognitive	8.3
My spirituality does not help me understand why bad things happen in life.	Strongly disagree Disagree Agree Strongly Agree	Transformation	Cognitive <sup>A</sup>	7.6
Understanding where my life fits into a greater plan is a source of stress for me.	Never Sometimes Often Always	Transformation	Cognitive	6.1
I feel guilty when I doubt my spiritual beliefs.	Never Sometimes Often Always	Transformation	Affective	4.9
It is important to me to find connection with the source(s) of my spirituality.	Strongly disagree Disagree Agree Strongly Agree	Discovery	Behavioral <sup>Cg</sup>	8.4
Knowing that my life is part of a larger spiritual plan makes me feel grateful.	Not true of me Slightly true of me Fairly true of me Very true of me	Discovery	Affective	6.7

Item Stem	Response Anchors	Content Classification	Functional Classification	Reading Level
My spirituality gives meaning in my daily life.	Not true of me Slightly true of me Fairly true of me Very true of me	Discovery	Cognitive	8.1
I grow spiritually when I go through hard emotional times.	I never do I sometimes do I often do I always do	Transformation	Cognitive <sup>A</sup>	7.1
When I doubt and/or question my spiritual beliefs, I experience spiritual growth.	I never do I sometimes do I often do I always do	Transformation	Cognitive	8.5
When I doubt my spiritual beliefs, I feel distant from the source(s) of my spirituality.	I never do I sometimes do I often do I always do	Transformation	Affective	8.3
I gain my understanding of the world through my spiritual journey.	Strongly disagree Disagree Agree Strongly agree	Discovery	Cognitive	6.9
I have a deeper bond with the sacred because of the challenges I face in life.	Not true of me Slightly true of me Fairly true of me Very true of me	Transformation	Affective	6.1
I experience the sacred when I engage in spiritual practices.	Never Sometimes Often Always	Conservation	Cognitive	8.3

*Note.* Superscript letters next to classifications indicate items that may overlap with regards to functional and/or content domains. The letters should be interpreted as follows: A = overlap with affective domain; B = overlap with behavioral domain; Cg = overlap with cognitive domain; D = overlap with discovery process; C = overlap with conservation process; and T = overlap with transformation process.



## Appendix J:

### Frame of Reference Item

Using the list below, please tell how you would describe yourself in terms of spirituality. That is, which of the following **best** describes you in terms of spirituality?

- I do not seek spiritual connection
- I seek spiritual connection from nature
- I seek spiritual connection from Mother Earth
- I seek spiritual connection from multiple gods
- I seek spiritual connection from a general supreme being
- I seek spiritual connection from the God of the Christian Bible
- I seek spiritual connection from Allah
- I seek spiritual connection from Buddha
- I seek spiritual connection from the universe
- I seek spiritual connection from having an awareness of meaning/purpose in life
- I seek spiritual connection from humanity
- I seek spiritual connection from many things
- I seek spiritual connection from something other than what is listed above (please specify: \_\_\_\_\_)

## VITA

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- B.S. Psychology, Campbell University, Buies Creek, NC 2010
- Professional Experience: Instructor, East Tennessee State University, Fall 2016 - Present
- Graduate Research Assistant, East Tennessee State University, Fall 2015 - Present
- Outpatient Therapist, RHA Health Services, Inc., Asheville, NC, 2014 - 2015
- Publications  
(in preparation): **Hoots, V. M.**, Childress, L. D., Clements, A. D. (2017). Is self-compassion related to spirituality and religiosity?
- Job, S.A., **Hoots, V. M.**, Hance, M.A., Williams, S., Marshall, S. (2017). Media exposure, anticipated stigma, and spiritual well-being in the LGBTQ+ population following the 2016 presidential election.
- Select Presentations: **Hoots, V. M.** (March 2017) *Spirituality, Religiosity, and Self-Compassion*. Poster session presented at the annual meeting of the Southeastern Psychological Association, Atlanta, GA.
- Hoots, V. M.** (March 2015) *Conceptualization and Measurement of Spirituality*. Oral presentation at the annual meeting of the Southeastern Psychological Association, Hilton Head, SC.
- Hoots, V. M.** (March 2014; April 2014) *Psychological Well-Being and Spirituality in the Aging Population*. Oral presentation at the Campbell University Academic Symposium, Buies Creek, NC and poster presented at the North Carolina Psychological Association Graduate and Undergraduate Student Poster Session in Chapel Hill, NC.
- Select Honors  
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M.A. Graduate with distinction, Campbell University, 2014

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