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An Investigation into the Relationship between Spirituality and Coping Responses among Women with a Visual Impairment

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An Investigation into the Relationship between Spirituality and Coping Responses among Women with a Visual Impairment

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by

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Abstract

The purpose of this study was to examine coping responses, specifically by women, and the relationship between those coping responses and a woman's self-reported spirituality. The sample was comprised of women (n = 175) from the United States and 10 foreign countries. The results of a correlational analysis showed a strong positive relationship ($r= 0.46$, $p<0.0001$) between scores on the Spirituality Assessment Scale (SAS) and the Brief Cope (BC). There were also statistically significant correlations among subscales of the SAS and BC subscales. A multivariate analysis of variance was performed to evaluate the impact that select demographic variables might have on spirituality and coping responses. The results of the MANOVA showed no effect and were not statistically significant at alpha 0.1.

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Dedication

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CHAPTER 1: The Problem

The occurrence of a stressful life event in any individual's life is typically followed by a response to that event. These responses generally involve the application of problem solving skills and strategies, most commonly referred to as coping responses. One major stressful life event is that of an onset of a chronic illness or disability. This research study is focused on coping responses, specifically by women, and the relationship between those coping responses and a woman's self-reported spirituality.

Statement of the Problem

Spirituality. The presence of a dispute between practitioners of psychology and those of spirituality has caused a great divide (Caplan, 2011). Practitioners of psychology argue that advancements in the understanding of human behavior is directly connected to external observations, intellectualizing, without concern for consciousness or spirit (Caplan, 2011). Mainstream psychology rejects what it deems as not scientifically quantifiable (Caplan, 2011; Haynes, 2016). Those who are on the opposite end of this divide and adhere to spiritual traditions and practices believe that the mind and spirit are essential for understanding human behavior (Caplan, 2011; Haynes, 2016). Practitioners of spirituality believe that observation is necessary, but it is direct observation of the mind (Haynes, 2016). The mind in this context is where thoughts, feelings, emotions, and ideas originate. Due to this divide, a differentiation between psychology and spirituality is needed.

In this research study, the researcher concentrated on spirituality as a construct that encompasses more than just generalized traditions and practices. Spirituality is comprised of four basic attributes: 1) purpose and meaning in life, 2) inner resources, 3) unifying inner connectedness, and 4) transcendence (Howden, 1992; Rodriguez, Glover-Graf, & Blanco, 2013; Tanyi, 2002).

The four attributes of spirituality are expressed through individualized practices (Rodriguez et al., 2013). Such practices can include mindfulness techniques, meditation, prayer to a higher power, deity, or Universal being, and positive reframing (Cotton, Tsevat, Szaflarski, Kudel, Sherman, Fienberg & Holmes, 2006; Matthews & Cook, 2009; Rodriguez et al., 2013). Spirituality is individualized and unique to each person (Brennan, 2002). Stating that individuals are spiritual does not mean that they are religious (Brennan, 2002; Tanyi, 2002). There are also those who confirm that they are religious, but not spiritual (Brennan, 2002, 2004; Tanyi, 2002).

Coping. Coping is the ability to work through a stressful life event by employing problem solving skills and strategies (Mount & Dillon, 2014; Rubin & Roessler, 2008; Taorimina-Weiss, 2012). There are several theories and models of coping (Smart, 2009; Smedema, Bakken-Gillen, & Dalton, 2009). Often problem solving skills and strategies involve behavior-oriented methods to either approach the situation or to avoid thinking about or dealing with it all together (Akgun, 2004; Carver, 1997; Smart, 2009). Approach methods involve actions such as seeking out family and social supports, counseling and therapy, involvement in planning, implementation of plans, and re-evaluation of strategies when previous attempts were not successful (Akgun, 2004; Mount & Dillon, 2014; Smart, 2009). These approach strategies and methods are considered adaptive and the more constructive option (Akgun, 2004; Mount & Dillon, 2014; Rosenthal, Kosciulek, Lee, Frain, & Ditchman, 2009; Smart, 2009; Smedema et al., 2009). The alternative to approaching a situation is to avoid it. The strategies and methods used to avoid the stressful life event are considered to be maladaptive in nature (Akgun, 2004; Rosenthal et al., 2009; Smart, 2009; Smedema et al., 2009). These avoidance techniques include behaviors such as self-imposed isolation, the use of alcohol and drugs, and denial (Carver, 1997; Mount & Dillon, 2014; Rosenthal et al., 2009; Smart, 2009).

Visual impairment. According to data gathered from national health statistics and reported by the American Foundation for the Blind (2017), there are approximately 23.7 million Americans that identify as having low vision or blindness. Prevent Blindness America (2012) reports that on average more than 50,000 Americans will lose a significant portion or all of his or her vision each year. Of that number, two-thirds are women (National Center for Health Statistics, 2014). The presence of a visual impairment in an individual's life has a tremendous impact on all aspects of his or her life (Moschos, 2014; Smart, 2009; Stevelink & Fear, 2016; Stevelink, Malcolm, & Fear, 2015).

There has been a moderate amount of research dedicated to adjustment to an acquired visual disability (Brennan, 2002, 2004; Moschos, 2014; Stevelink et al., 2015; Yampolsky, Wittach, Webb, & Overbury, 2008). Many individuals who experience an onset of a visual impairment or blindness seem to have a more difficult struggle with all aspects of adjustment and coping than do other individuals with a chronic illness or disability (Brennan, 2002; Moschos, 2014; Smart, 2009; Stevelink & Fear, 2016; Yampolsky et al., 2008). Some of the major issues with adjustment and coping with a visual impairment have been identified as loss of self-sufficiency, being regarded as a burden, lack of privacy, a shift from independent to dependent, loss of financial security, and forced isolation (Moschos, 2014; Smart, 2009; Stevelink & Fear, 2016; Yampolsky et al., 2008). An intensive review of literature by Moschos (2014) resulted in three predominant responses to loss of sight. The first is that of acceptance (Moschos, 2014). The second is that of denial, and the third is depression and anxiety (Moschos, 2014). More than 90% of the individuals in Moschos' research study who were diagnosed with vision loss reported feelings of depression, anxiety, and suicidal ideation (Moschos, 2014). Individuals who have only partial sight loss seem to have a more difficult time adjusting than individuals who have

total vision loss (Moschos, 2014). The impact of the loss of sight is gradual and the feelings of isolation, inadequacy, and dependence are heightened and intensified (Moschos, 2014). Moschos (2014) said, "Throughout history, deprivation of eyesight has been perceived as the most severe form of punishment, second only to loss of life" (p. 89). The perception that loss of sight or vision is second only to loss of life, sets the onset of a visual impairment apart from other sensory disabilities in the change to an individual's life (Moschos, 2014; Stevelink & Fear, 2016). In the literature and research, both men and women have been examined to evaluate his or her particular levels of coping (Badr, & Abd El Aziz, 2007; Brennan, 2002, 2004; Stevelink et al., 2015; Yampolsky et al., 2008). This research suggests that there is a difference in how men and women adjust and cope with his or her visual impairment (Badr, & Abd El Aziz, 2007; Yampolsky et al., 2008).

Gender. As society is moving away from biological sex as the determinant if an individual is classified as a man or a woman, the more recognizable term has become gender identity (Newman, 2016; Phillips, 2005). Sex is defined as the biological and physiological characteristics that distinguish a man from a woman or male from a female (Newman, 2016; Phillips, 2005). An individual's sex is determined genetically by the presence of an X or Y chromosome. The location and function of the individual's genetalia is a key factor and marker for sex (Phillips, 2005). Gender is the socially constructed roles, behaviors, activities, and attributes that any given society deems appropriate for men and women (Phillips, 2005). There are some instances where an individual's biological sex does not align with his or her gender identity (Newman, 2016). For these individuals, he or she may refer to his or her gender identity as transgender, non-binary, or gender-nonconforming (Newman, 2016; Phillips, 2005). Phillips

(2005) reports that the disparities and inequalities faced by women are not dependent on whether identification for a woman is by sex or gender.

As stated previously, two-thirds of Americans who have low vision or who are blind are women (National Center for Health Statistics, 2014). Identifying as a woman significantly lowers status (Leskinen, Rabelo, and Cortina, 2015; Phillips, 2005) and traditionally lowers the starting salary as compared to men with the exact same qualifications (Costello & Hegewisch, 2016). When one identifies as a woman and then has a chronic illness or disability, she has achieved a double minority status (Smith & Alston, 2008). The onset of a chronic illness or disability has an impact on the family dynamics, relationship dynamics, and personal identity of an individual and is often referred to as traumatic and filled with stress (Rosenthal, Kosciulek, Lee, Frain, & Ditchman, 2009; Smart, 2009). Women experience disparities and injustices by just identifying as a woman, no matter how progressive the consensus believes society has become (Alesina et al., 2013; Desai, Chugh, & Brief, 2014; Leskinen et al., 2015). It is this minority group that is the focus population for this study.

Significance of the Study

Society has imposed rules that dictate the responsibilities and actions of both men and women (Alesina, Giuliano, & Nunn, 2013). Those rules or roles are impacted by the onset of a chronic illness or disability (Desai, Chugh, & Brief, 2014; Leskinen, Rabelo, & Cortina, 2015; Smith & Alston, 2008). Although a man may have a chronic illness or disability, the role he has is not as affected in the same manner as that of a woman's role or status within a society or the family (Smith & Alston, 2008).

The adjustment to the onset of a visual disability is multi-dimensional and multi-faceted. When the disability is a significant one, as in visual impairment, using mechanisms to encourage

and facilitate adaptive coping strategies will assist in the rehabilitation process. Women have had to overcome barriers to employment and independence that men have not had to face (Alesina et al., 2013; Costello & Hegewisch, 2016; Leskinen et al, 2015; Smith & Alston, 2008). Recognizing those mechanisms and tools used to improve adjustment and cultivate adaptive coping could have a tremendous impact on vocational rehabilitation outcomes for both women and men. Furthermore, the link between an individual's identification with spirituality and adaptive coping behaviors is not a new topic of research. However, the research is lacking with those whose gender identity is female, and she has had an onset of a visual impairment.

Outcome Measurements

The researcher focused this study on the relationship between spirituality and coping responses in individuals who identify as women who have a visual impairment. Through extensive review of previous research and literature relevant to spirituality and coping, the researcher identified two specific instruments to assist in evaluating self-reported level of spirituality and coping responses. The instruments are the Spirituality Assessment Scale (Howden, 1992) and the Brief Cope (Carver, 1997).

The Spirituality Assessment Scale is comprised of 28 items divided into four subscales (Howden, 1992). The subscales (purpose and meaning in life, inner resources, unifying inner connectedness, and transcendence) represent the four components previously identified as attributes of spirituality. Howden (1992) states that individual scores from the subscales can be calculated independently to gage the strength of that particular attribute of spirituality.

The Brief Cope also has 28-items and is an assessment used to evaluate self-reported methods of coping and to what degree an individual uses those methods. These items include 16 adaptive, approach-oriented coping behaviors and 12 maladaptive, avoidant coping mechanisms.

Higher scores on the Brief Cope represent better coping and problem solving skills (Carver, 1997).

Assumptions Underlying the Study

There are several assumptions that underlie this study. First, it was assumed that all participants would complete the surveys only once. Second, it was assumed that each participant would use the current definition of the concept of spirituality when selecting a response. Finally, collection of all data would be conducted by self-report of experiences, thus it was assumed that the participants would be honest and reflective when answering each item.

Theoretical Foundation/Basis of Study

As I am an individual who identifies as a woman and who has had to adjust to the onset of a visual impairment, my interest in how others cope and adjust to the presence of a visual impairment has grown. When there is an event that brings significant changes to one's life and self-concept, it is learning how to cope and retain independence that becomes important. Adjustment to the onset of a disability has several models and theories (Rosenthal et al., 2009; Smart, 2009; Smedema, Bakken-Gillen, & Dalton, 2009). Beatrice Wright theorized the stage model of coping and adjustment (Smart, 2009). Other researchers suggest that coping and adjustment are fluid and fall on a continuum (Livneh, 2016; Smart, 2009; Smedema et al., 2009). Each model of coping and adjustment, however, is impacted by different factors (Rosenthal et al., 2009; Smedema et al., 2009). Through the disability adjustment process, individuals experience loss and those losses include the loss of the physical ability, such as sight, loss of employment, loss of social status, and loss of self (Smart, 2009; Smedema et al., 2009). Smart (2009) notes that the steps of the stage model of adjustment (shock, denial, anger/depression, and adjustment/acceptance) to the onset of a disability mirrors the stages of grief and loss posited in

the book *On Death and Dying* by Elizabeth Kubler-Ross. As cited in Smart (2009), Kubler-Ross introduced these five stages (anger, denial, bargaining, depression, and acceptance) she also acknowledged that these were fluid. By accomplishing or mastering employment, continued social experience, and becoming self-aware, each factor leads or is a contributing factor to adaptive coping and adjustment (Livnah, 2016; Smart, 2009).

Research Questions

The guiding research questions for this study are:

1.) Is there a significant relationship between self-reported spirituality and coping responses in women with an onset of a visual impairment?

2.) Is there a significant relationship between self-reported levels of spirituality and approach coping in women with an onset of a visual impairment?

3.) Is there a significant relationship between self-reported spirituality and avoidant coping responses in women with an onset of a visual impairment?

4.) Is there a significant relationship between any of the four attributes of spirituality (purpose and meaning of life, inner resources, unifying inner connectedness, transcendence) and either approach coping or avoidant coping responses in women with an onset of a visual impairment?

5.) Are there differences in spirituality and coping scale scores in women, with an onset of a visual impairment, based on demographic variables (e.g. age, marital status, employment status)?

Research Hypotheses

1. There will be a strong positive correlation between total test scores on the Spirituality Assessment Scale (SAS) and the Brief Cope.
2. There will be a strong positive correlation between scores on the SAS and the Approach coping behavior scale on the Brief Cope.
3. There will be a strong negative correlation between the score on the SAS and the Avoidant coping behavior scale on the Brief Cope.
4. There will be a significant relationship (positive or negative) between the four attributes of spirituality (purpose and meaning of life, inner resources, unifying inner connectedness, transcendence) and approach or avoidant coping responses.
5. There will be differences in spirituality and coping scale scores in women with an onset of a visual impairment, based on select demographic variables.

Limitations of the Study

The following potential limitations were identified for this study:

1. Data will be collected via online survey. As such, there is no guarantee that each participant will complete the survey in its entirety. The researcher will control for missing responses on the survey during the analysis of data. Any participant with missing responses on items necessary for this study will be omitted from final analysis.
2. The researcher understands that participation in this study is completely voluntary. The researcher will use convenient sampling, along with snowball sampling to gain participation in the study. The use of the Internet to reach participants outside of the researcher's immediate geographical location will be used.

3. This study will use two instruments to evaluate both levels of spirituality and that of coping responses. The researcher understands and is well aware that any correlation of results does not mean or presume causation.

Operational Definitions

Approach coping. Approach coping is a cognitive and behavior-oriented method of coping that uses problem solving techniques and strategies to handle stressful situations or events in an individual's life. Approach coping is considered to be adaptive, employ proactive behaviors, and is constructive in nature.

Avoidant coping. Avoidant coping is a cognitive and behavior-oriented method of coping that uses strategies and activities to avoid thinking about the stressful situation or event in an individual's life. Avoidant (or avoidance) coping is considered to be maladaptive and unproductive.

Brief cope. The Brief Cope is a 28-item assessment instrument used to evaluate how often an individual uses approach and avoidant coping mechanisms (Carver, 1997).

Coping. Coping is defined as the ability to work through a stressful situation by enabling particular problem-solving techniques or strategies (Mount & Dillon, 2014; Rubin & Roessler, 2008; Specht, King, Willoughby, Brown, & Smith, 2005; Taorimina-Weiss, 2012).

Disability. A physical or mental condition that affects and places limitations on an individual's movement, activities, and/or the senses, such as hearing or vision (Rubin & Roessler, 2008). A disability can be congenital (present at birth) or acquired (onset later on in development or as an adult).

Gender. Refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for men and women.

Legally blind. Legally blind is defined as having a visual acuity of 20/200 or less in the better eye with conventional correction (Social Security Administration, 2017). Visual field is also a determinant of legal blindness and is described as having a visual field of 20 degrees or less (Social Security Administration, 2017). This limitation of visual field is also referred to as tunnel vision. A person's visual field is the area that can be seen to each side as the person's eye is focused straight ahead (Social Security Administration, 2017).

Low vision. Low vision is defined as having a visual acuity of 20/70 or poorer in the better eye that cannot be corrected with lenses, surgery, or medications (Social Security Administration, 2017). It is caused by eye disease and is functionally defined as a permanent reduction of vision (Social Security Administration, 2017).

Religion. An organized system with rituals, practices, and beliefs in one higher power or deity.

Sex. The biological and physiological characteristics that define men/women and male/female.

Significance. In statistics, the probability or likelihood that a relationship between two or more variables is caused by something other than random chance.

Spirituality. Spirituality is comprised of 4 basic attributes, purpose and meaning in life, inner resources, unifying inner connectedness, and transcendence. It is comprised of more than generalized traditions and practices.

Spirituality Assessment Scale. The Spirituality Assessment Scale is a 28-item assessment instrument that evaluates the four attributes of spirituality (purpose and meaning of life, inner resources, unifying inner connectedness, and transcendence) (Howden, 1992).

Visual impairment. An umbrella term referring to visual disabilities, which includes low vision and legal blindness.

Summary

In summation, the purpose and focus of this research study was to investigate the relationship between self-reported levels of spirituality and those of coping responses in women who have a visual impairment. Research has indicated that individuals diagnosed with a visual impairment seem to have a more difficult time adjusting and coping with the medical diagnosis than do individuals born with a visual impairment or blindness (Moschos, 2014; Stevelink & Fear, 2016). There is research that strongly suggests that men and women cope differently. Specifically, it has been suggested that women do not use good coping strategies (Herscher, 2017; Matud, 2008). The connection to spiritual practices and beliefs has influenced coping in both men and women.

Some target audiences for this study are vocational rehabilitation counselors for blind services, mental health counselors, educators, and other professionals in the helping professions and social services fields. Understanding the reliance on spirituality to improve adaptive coping will assist in development of plans for employment, treatment plans, potential training and education, and construction of goals for independent living. The understanding of individuals who do not place a high reliance on spirituality and who also present more maladaptive coping responses will assist in the development of more individualized treatment plans, interventions, and guiding the individual in developing better coping skills. Examining the level of reliance on spirituality, the professional charged with overseeing rehabilitation or counseling can provide positive support and encourage the continued method of adaptive coping behaviors.

CHAPTER 2: Literature Review

The onset of a disability is accompanied by stress, anxiety, and uncertainty (Rosenthal et al., 2009; Smart, 2009). There is a large body of literature focused on how individuals cope and adjust to a disability. Likewise, the literature also includes discussions on the role spirituality has played with regards to the topic of disability. Whether it be the source of the condition or a proposed cure, a relationship between spirituality and disability exists (Rubin & Roessler, 2008). In the following sections, both spirituality and coping are discussed with regards to defining each, examining the research associated with each, and linking the two in order to address the research problem identified for this study.

Research Strategies

An extensive search of Google Scholar, ProQuest, and EbscoHost databases was conducted in order to seek out extant literature relevant to the main themes of this research study. Key words such as visual impairment, gender, women, coping, and spirituality were used along with other synonymous words (e.g. blindness, female, low vision, spiritual, and coping responses). Relevant text and online resources were also accessed. Terms were cross-referenced, and multiple searches were conducted to trace the primary sources of information, previous research, as well as the most recent investigations on the main constructs.

Organization of the Chapter

This chapter was organized using a method of deduction. The two main constructs, spirituality and coping, are first introduced. Beneath both constructs are the other areas of interest and focus in this study. Gender and disability, specifically visual impairment, are examined in the literature as they are linked individually, first to spirituality, then to coping. Next, the four constructs of spirituality, gender, coping, and visual impairment are explored in

combination with each other in the research. Finally, a summary of the literature that was examined is provided.

Spirituality

The term spirituality has historically been used in reference with religion to describe finding purpose and meaning in life, inner peace with reliance and guidance from God, a higher power or transcendence, and was demonstrated by traditions and practices such as prayer, worship, and sacrifice (Rodriguez et al., 2013; Tanyi, 2002). Often spirituality and religiosity are used interchangeably (Tanyi, 2002). However, religion is more frequently explained as an organized system that has traditional practices, rituals, and a belief in a higher power or deity (Tanyi, 2002; Yampolsky et al., 2008). At times an individual may state that he or she is not religious but self-describe as spiritual instead (Brennan, 2002, 2004). Moreover, those who identify as religious may or may not refer to their faith as a spiritual experience (Brennan, 2002, 2004; Tanyi, 2002). This dissertation will use the more modern explanation of spirituality to encompass all faiths, beliefs, and practices as described in Chapter 1. As there is a differentiation between psychology and spirituality, so there is now a differentiation between spirituality and religiosity. Previously, spirituality was a characteristic of religion or religiousness and had mystical and ethereal properties (Moss & Dobson, 2006; Tanyi, 2002).

Explanations and reasons describing the existence of disability, deformity, or dysfunction may be traced back to religion and the encompassing attributes (Rubin & Roessler, 2008). As time and knowledge progressed, a shift has occurred in the theories of how and why disability is defined and perceived by society as well as the individual (Rosenthal et al., 2009; Smart, 2009; Smart & Smart, 2006; Smedema et al., 2009). Examining the evolution of thought and theories

for the presence of chronic illness and disability is an important step when considering the role of spirituality in regard to coping with chronic illness and disability.

The evolution of the models of disability. A model presents explanations of constructs, ideas, and theories to answer the questions why and how (Smedema et al., 2009). There has been an evolution of thought as to how disabilities are constructed and perceived by both society and the individual (Smart, 2009; Smedema et al., 2009). A model of disability will a) define disability, b) tell the location or source of the problem (the disability), c) provide possible solutions for the problem, and d) describe who is responsible for solving the problem (Smart, 2009). The original concept of chronic illness and disability has changed with the search for more knowledge. Beginning with the original model of disability, a strong emphasis was placed on religion and spirituality as the reason for the existence of disability. Western philosophy has migrated away from this antiquated view and embraced more modern models such as the medical, functional, and biopsychosocial models of disability (Smart & Smart, 2006). Ironically, through this shift, spirituality, separated from religion, has come full circle to help theorize chronic illness and disability.

The Spiritual or Religious Model of Disability. The original model of disability was referred to as the Spiritual or Religious Model (Smedema et al., 2009; Sullivan, 2011). In this model, disability is portrayed as the resulting punishment for committing a sin against God or the church (Rubin & Roessler, 2008; Sullivan, 2011). Sin, in this context, is defined as the breaking of any of God's laws (commandments) (Sullivan, 2011). For example, mental illness was seen as demonic possession. In this case, weak-minded individuals, lacking conviction and faith, allowed themselves to be open to possession by demons or the devil (Rubin & Roessler, 2008). Similarly, the presence of a physical disability, such as missing limbs, blindness, and deafness were seen as

just and fair punishments for the sins of the parents or for those of the individual (Rubin & Roessler, 2008; Sullivan, 2011).

Smart (2009) describes this as "causal attribution" (p 59). For centuries, disabilities, deformities, and dysfunctions were perceived to be the results of an individual's or parent's sins (Sullivan, 2011). The solution for these disabilities, deformities, and dysfunctions was sought in practices such as purging, exorcism, and death (Rubin & Roessler, 2008). The responsibility for the solution in the Spiritual or Religious Model of disability was held by clergymen, holy men, and devout leaders of the church. If an infant was born without a limb, was deaf or blind, then the child was taken out of the home and placed outside of the city or township. The child was left to the elements and his or her fate decided by God. Individuals who had any type of mental illness were subjected to extreme forms of purging, which included starvation, and bleeding. Leaders of the Church performed exorcisms to rid the individual of the demons and evil. If such practices were not successful, then the individual was killed to alleviate his or her misery and protect the rest of the community.

The Medical Model of Disability. The Medical Model of Disability is the next oldest and most basic concept of disability (Chan, Sasson Gelman, Ditchman, Kim, & Chiu, 2009; Smart, 2009; Sullivan, 2011). The Medical Model has two distinct dimensions, normal and pathological (Smart, 2009; Sullivan, 2011). According to the Medical Model, disability is a dysfunction, deformity, or disorder that originates in the individual (Chan et al., 2009; Smart, 2009; Smart & Smart, 2006; Sullivan, 2011). In this model, it is physicians who are the experts (Chan et al., 2009; Smart, 2009; Smart & Smart, 2006). The individual is a passive participant, receiving instructions from a qualified professional, such as a medical doctor (Chan et al., 2009; Smart, 2009; Sullivan, 2011). The responsibility for the solution resides in either curing (fixing) the

chronic illness or disability (Chan et al., 2009; Smart, 2009; Sullivan, 2011), receiving rehabilitation (Sullivan, 2011), or in death (Chan et al., 2009; Smart, 2009; Sullivan, 2011).

According to the Medical Model, the problem lies within the individual (Smart, 2009; Smart & Smart, 2006; Sullivan, 2011). The presence of an abnormality, illness, or disability is the problem found solely within the individual (Smart, 2009). "Society is effectively absolved of all responsibility for disability because society relinquished authority to the medical profession" (Smart, 2009, p 61). An individual's environment in which he or she resides, works, or otherwise interacts with others has no influence on the cause or problem (Smart & Smart, 2006; Smart, 2009). There are no external factors or influences that impact the individual with the chronic illness or disability (Chan et al., 2009).

The Functional Model of Disability. The Functional Model of Disability defines disability as a role failure (Smart, 2009). The individual is unable to perform functions or activities due to the presence of a disability or impairment (Smart & Smart, 2006; Smedema et al., 2009). In this model, disability is not always present because for some functions or activities the disability would not cause difficulties (Smedema et al., 2009).

The problem is found in the functions required by the environment, not the individual (Smart, 2009; Smart & Smart, 2006). Thus, the solution includes adaptations and accommodations made to the environment (Smart & Smart, 2006; Smedema et al., 2009). The functional model focuses on work and how the individual contributes economically. The responsibility for solving the problem lies within the environment by making accommodations and adapting the surroundings so that the disability is not a viable presence (Smart, 2009; Smart & Smart, 2006; Smedema et al., 2009).

The Biopsychosocial Model of Disability. The Biopsychosocial Model of Disability integrates three important dimensions of an individual to explain chronic illness and disability (Gatchel, Peng, Peters, Fuchs, & Turk, 2007; Smedema et al., 2009). Disability is understood as a result of biological (physiological), psychological (mental and emotional), and social (society and the environment) factors (Gatchel et al., 2007). The Biopsychosocial Model divides disability into two interconnected areas: illness and disease. Illness is the complex interaction of biological, psychological, and social factors (Gatchel et al, 2007). Disease, on the other hand, is "an objective biological event involving the disruption of specific body structures or organ systems caused by either anatomical, pathological, or physiological changes" (Gatchel et al, 2007, p. 385). Illnesses are the subjective responses by an individual and his or her family to disease (Gatchel et al, 2007).

In the Biopsychosocial Model, disability and functioning are an intersection of the health condition of the individual, contextual factors of the environment, and personal factors (Gatchel et al, 2007). The solution in this model is to participate in treatment and therapy, implement family and social supports, and use accommodations for the limitations of the disability (Gatchel et al, 2007; Smedema et al., 2009). The responsibility for providing the solution is found in the environment and society (Smedema et al., 2009). Some examples of solutions include eliminating architectural barriers (for mobility), digital accessibility (for sensory), and correcting stigmas, myths, and prejudices by people without disabilities (for all disabilities seen and unseen; Gatchel et al, 2007; Smart, 2009; Smedema et al., 2009).

The Social Justice Model of Disability. One of the newer models is the Social Justice Model of Disability (Kelsey & Smart, 2012). To understand the premise behind the model, social justice must be defined. Kelsey and Smart (2012) state that Constantine, Hage, Kindaichi, and

Bryant (2007) defined social justice as the "fundamental valuing of fairness and equity in resources, rights, and treatment for marginalized individuals and groups of people who do not share equal power in society because of their immigration, racial, ethnic, age, socioeconomic, religious heritage, physical ability, or sexual orientation status groups" (p. 24). Thus, the Social Justice Model of Disability recognizes that the problem originates from factors outside of the individual (Kelsey & Smart, 2012). Chronic illness and disability is not viewed as an inadequacy, abnormality, deformity, or dysfunction, but rather considers the environment and climate of the society in which the individual lives (Kelsey & Smart, 2012; Venkatapuram, 2014).

In contrast to the Medical Model of Disability, the source of the problem in the Social Justice Model is directed away from the individual (Kelsey & Smart, 2012). Factors previously present in older models, such as unequal power, unearned privilege, and oppression distinguish the Social Justice Model from the other models (Kelsey & Smart, 2012; Venkatapuram, 2014). The prejudices, stereotypes, and discrimination felt and experienced by individuals with disabilities are recognized as faults within society and individuals without disabilities (Smart, 2009).

The responsibility for the solution in the Social Justice Model rests on society's shoulders (Kelsey & Smart, 2012). For example, if an individual who uses a wheelchair cannot enter a building, it is the environment surrounding the individual that must be changed or altered. The individual using the wheelchair for mobility does not seek out a cure, rehabilitation, or avoid traveling where he or she wishes just because the environment and society have created barriers. It is acknowledged that society is inadequate and inaccessible to individuals with chronic illness

and disabilities (Venkatapuram, 2014; Kelsey & Smart, 2012). The change in society's attitudes and perceptions towards individuals with disabilities is mandatory (Kelsey & Smart, 2012).

The Biopsychosocial-Spiritual Model of Disability. As different models of disability are evolving and changing, the inclusion of spirituality would fill in the gap of an individual's life concept. The Biopsychosocial-Spiritual Model of Disability posits that aside from the biological, psychological, and social factors that contribute to the explanation of chronic illness and disability, spirituality has an equal role (Wachholtz et al, 2007). Wachholtz et al. (2007) stated that, "spirituality and spiritual forms of coping may play an important role in the experience of illness and pain" (p. 365). A large majority of individuals who have been diagnosed with chronic pain state that their spiritual beliefs and practices are responsible for help in healthy management of that pain (Wachholtz et al., 2007). Spirituality, integrated in to the Biopsychosocial Model of disability, highlights each factor for the questions of why and how of the existence of chronic illness and disability (Wachholtz et al., 2007). Where the Biopsychosocial Model has the interconnecting facets of biology, psychology, and society; the spirituality component is often the factor that helps to determine the subjective severity of the chronic illness and disability (Wachholtz et al., 2007). The solution to the problem is very similar to the Biopsychosocial Model. The addition of spirituality assists to eliminate barriers and limitations by not allowing them to take precedence in an individual's life (Wachholtz et al., 2007). This happens by understanding that the chronic illness and disability are not punishments, but rather the results of a diverse universe (Wachholtz et al., 2007). The responsibility for the solution lies within the individual as well as the surrounding environment.

Summary. In summary, the evolution of the models of disability have come full circle with regards to spirituality. For centuries, disability had roots in religious and spiritual origins.

Throughout the years, the advancements in thought and science have seen more logical and quantifiable theories for the existence of chronic illness and disability. The culmination of this evolution has brought spirituality back into the model. This inclusion is key when investigating coping with a chronic illness and disability.

Spirituality and disability. The modern explanation of spirituality lends more to a direct observation of consciousness and focus on the present moment (Caplan, 2011; Haynes, 2016). It is characterized by the attributes of finding purpose and meaning of one's life, reliance on inner resources, meditation, mindfulness, and reaching beyond one's own abilities, known as transcendence (Brennan, 2002, 2004; Howden, 1992).

In a research study conducted by Eliassen (2014), parents of a child with a disability were asked about their reliance on religion and religious leaders. The study focused on perceptions and whether parents felt comfortable disclosing the child's disability to others (Eliassen, 2014). The results indicate a difference in race and ethnic backgrounds. On average, white American parents contributed religiosity to better coping and adjustment regarding the child's disability (Eliassen, 2014). Despite cultural links to deep faith and devout religion, African-American parents did not consider their faith when asked about coping (Eliassen, 2014). The responses suggested that African-American parents' coping skills were less effective than those of white American parents (Eliassen, 2014).

Spirituality and gender. The literature is also comprised of research examining how gender may play a role in reliance on spirituality (Cotton et al., 2006; Simpson, Cloud, Newman, & Fuqua, 2008). Simpson et al., (2008) investigated both biological sex and gender identity when looking at both spirituality and religiosity. The researchers reported that the two categories (sex and gender) had no significant differences if the respondent chose either of the masculine

options or if they chose either of the feminine options (Simpson et al., 2008). The study also suggested that if the respondent chose either woman (sex) or feminine (gender), she sought out spiritual practices and traditions more frequently on a regular basis (Simpson et al., 2008). Simpson et al., (2008) posit from the research that when faced with stress and anxiety, the respondents that chose either of the female options were more likely to rely on spirituality.

In a study conducted by Cotton et al, (2006) a sample of 347 adults diagnosed with HIV reported that the diagnosis had an effect on their reliance on spirituality and or religiousness. The sample was comprised of participants who identified with different genders and races (Cotton et al., 2006). Approximately 50% of the participants reported that they felt that they identified more strongly with their spirituality or religiousness after their diagnosis (Cotton et al., 2006). About 2 out of 10 participants stated that he or she left their current place of worship due to non-acceptance but did seek out another place rather quickly (Cotton et al., 2006).

Spirituality and women. In a research study conducted by Gordon et al. (2002), the relationship between spiritual and religious beliefs and coping in forty women with chronic illness was examined. The women who participated had been diagnosed for at least a year with lupus, osteoporosis, rheumatoid arthritis, multiple sclerosis, or with two of the listed conditions (Gordon et al., 2002). The researchers were interested in how the participant's religious beliefs affected coping with a chronic illness and at what level (Gordon et al., 2002). Gordon et al. (2002) utilized the Disability Acknowledgment Model posited by Vash in 1981. In this model, coping with a chronic illness or disability is conveyed on three levels (Gordon et al., 2002). The first level categorizes an individual with a disability as having a negative experience and the problem is understood, but also perceived as traumatic. The second level of this model is more of a neutral ranking (Gordon et al., 2002). The "individuals accept the limitations of disability,

begin to integrate it in their lives, and view it from a neutrally valued perspective" (Gordon et al., 2002, p 167). The third and final level is the most adaptive coping level. Here the individuals consider the "disabling experience has provided a catalyst for growth and transcendence and has become a vehicle for personal growth and development" (Gordon et al., p. 167). The results of the study indicated that 60% of the participants relied significantly on religious beliefs and practices and were divided between the second and third level of the model (Gordon et al., 2002). The use of spiritual or religious practices, which were approach oriented, demonstrated adaptive or positive coping responses (Gordon et al., 2002).

Gaston-Johansson, Haisfield-Wolfe, Reddick, Goldstein, & Lawal (2013), Levine (2005), and Matthews & Cook (2009) examined how coping was impacted by spirituality in cancer patients. In each study, participants were already receiving chemotherapy treatments or were in remission (Gaston-Johansson et al., 2013; Levine, 2005; Matthews & Cook, 2009). The participants were interviewed about religious or spiritual beliefs and practices (Gaston-Johansson et al., 2013; Levine, 2005; Matthews & Cook, 2009). Gaston-Johansson et al. (2013) had a focus population of African-American women receiving chemotherapy for breast cancer. The women reported utilizing various religious and spiritual practices such as prayer, positive self-affirmation, involvement in church activities and fellowship, and pastoral counseling to keep positive (Gaston-Johansson et al., 2013). The women stated that their faith, spirituality, and support system aided in the adaptive coping and good problem-solving skills they had developed (Gaston-Johansson et al., 2013).

Coping

Coping is defined as the ability to work through a stressful situation by enabling particular problem-solving skills or strategies (Mount & Dillon, 2014; Rubin & Roessler, 2008;

Specht et al., 2005; Taorimina-Weiss, 2012). There are several theories of coping that are used to help explain how individuals cope and adjust (Smart, 2009; Smedema et al., 2009). One theory describes coping on a continuum from maladaptive to adaptive (Smart, 2009; Smedema et al., 2009). This could also be restated in a more simplified way by saying healthy and constructive versus unhealthy coping (Smart, 2009). Other theories and models build on one another to develop a better understanding of the differences and complexities of adjustment and coping strategies (Smart, 2009; Smedema et al., 2009). When there is a stressful event, as in the onset of a disability, how the individual responds to that event is key to whether coping is adaptive or maladaptive (Smart, 2009). The responses by the individual are cognitive and behavioral in nature and action oriented. These responses are referred to as coping responses (Billings & Moos, 1981).

Coping responses. Another theory posits two behavior-oriented methods of coping (Billings & Moos, 1981; Smedema et al., 2009). The actions tend to use positive and negative behaviors to cope with a stressful life event (Billings & Moos, 1981). The more adaptive of these is approach coping behaviors, also referred to as responses, and are positive in nature. The alternative method is maladaptive, also known as avoidant coping behaviors, and tend to be more negative in nature (Billings & Moos, 1981).

Approach coping. The first of these behavior-oriented methods is approach coping. Approach coping uses problem solving techniques and strategies to handle stressful situations (Billings & Moos, 1981; Smedema et al., 2009). Approach coping is a proactive and action-oriented technique (Akgun, 2004; Carer, 1997). An individual with an onset of a disability using approach coping often becomes involved in his or her treatment and rehabilitation (Smart, 2009). Seeking out support either from family or support groups, humor, and positive reframing are

some approach and action-oriented techniques used to adapt and cope with a disability (Stevelink & Fear, 2016; Stevelink et al., 2015).

Akgun (2004) examined how students would handle two different stressful situations. The 255 students that had more resources and were on average more resourceful (history of seeking out assistance) were found to use problem-focused, positive reappraisal, and approach coping techniques (Akgun, 2004). Those same students were found to be less likely to use avoidant coping methods (Akgun, 2004).

Avoidant coping. The other behavior-oriented method is avoidance coping. This method uses strategies and activities to avoid thinking about the stressful situation (Billings & Moos, 1981; Mount & Dillon, 2014; Smedema et al., 2009). An individual using this form of coping strategy will often participate in distracting and negative activities (Billings & Moos, 1981; Carver, 1997; Mount & Dillon, 2014). These activities often include alcohol and other illegal substances (Carver, 1997). Other forms of avoidant coping activities are not necessarily harmful or illegal but are generally distracting tactics so that the individual can forget about the stressful situation (Billings & Moos, 1981; Mount & Dillon, 2014).

Mount and Dillon (2014) asked parents of children diagnosed with Autism Spectrum Disorder what techniques they used to cope with the diagnosis. The parents responded that they initiated activities to avoid thinking about the diagnosis of their child (Mount & Dillon, 2014). Activities involving going to the movies, family trips, and other distractions were used frequently (Mount & Dillon, 2014).

Coping and disability. As individuals are unique and different, so are the problem-solving skills and strategies used to cope and adjust to significant life events. One question that often arises is where did these techniques originate? Muir and Strnadova (2014) and Perera and

Standen (2014) suggest that certain coping strategies develop from necessity. These necessary abilities to cope and adjust often quickly occur when a child has a disability (Muir & Strnadova, 2014; Perera & Standen, 2014). Some theorists would posit that this particular type of coping is innate (Lambert et al., 2006). The discussion about the differences in coping between congenital and acquired disabilities included already present problem-solving skills in adults (Smart, 2009). Individuals who were born with impairments have not had an extended amount of time to learn these particular problem-solving strategies (Smart, 2009). Thus, why the coping strategies are born out of necessity (Lambert et al., 2006; Muir & Strnadova, 2014; Perera & Standen, 2014). Lambert et al., (2006) suggest that there is a connection between innate and learned coping. It is a combination of having a predisposition (innate) and experienced-based (learned) behaviors (Lambert et al., 2006).

Haase, Lienemann, and Faustmann, (2007) were interested in whether the coping responses in women diagnosed with multiple sclerosis (MS) differed when compared with women who had no diagnosis. The participants consisted of 86 women, 48 with the diagnosis of multiple sclerosis and 38 in the control group (no diagnosis) (Haas et al., 2007). Of the 48 participants with MS, 26 had a co-occurring physical disability and 22 did not (Haas et al., 2007). Both groups of women were given the Beck Depression Inventory, which was used as the determiner of approach versus avoidant coping (Haas et al., 2007). The results in this study demonstrated that there was no difference in approach and avoidant coping responses in the control group and the 22 participants that had no co-occurring physical disability (Haas et al., 2007). Those women with MS and who had a physical disability did score higher on the Beck Depression Inventory (Hass et al., 2007). The researchers noted that this difference suggested more avoidant coping responses (Haas et al., 2007).

Coping and visual impairment. Stevelink et al., (2015) investigated the impact of an onset of a visual impairment with ex-service personnel. The researchers wanted to know the strategies for coping that were used and how the visual impairment affected an individual's daily life (Stevelink et al., 2015). The participants reported experiencing a need to withdraw from society and developing a reliance on alcohol and other substances to make it through his or her day (Stevelink et al., 2015). Both of those behaviors illustrate the avoidant and maladaptive coping techniques (Stevelink et al., 2015). However, some of the participants did state that after the initial shock of losing his or her vision, it became easier to seek out help from family and to go to counseling, demonstrating approach and adaptive coping strategies (Stevelink et al., 2015). Stevelink et al., (2015) mentioned how the Kubler-Ross stages of grief and loss were reflected in the participant's stories. The participants stated that he or she had experienced the anger at the loss of vision; the denying that the loss of vision was a permanent one; the depression and loss of hope; and the bargaining with God or a higher power to bring back his or her vision (Stevelink et al., 2015). Finally, the participants stated that acceptance came and went, further suggesting that the stages are fluid and continuous (Stevelink et al., 2015).

In a cross-sectional study conducted by Stevelink & Fear (2016), how women coped and adjusted to the onset of a visual impairment was examined. The 10 participants were all ex-service personnel that had lost vision while in active service (Stevelink & Fear, 2016). All participants reported experiencing a loss of self, low self-esteem, and feeling down (Stevelink & Fear, 2016). Similar to the experiences reported from the Stevelink et al., (2015) study, these women also reported social withdrawal (Stevelink & Fear, 2016). Stevelink and Fear (2016) found that on average 1 out of 10 women had experienced depressive symptoms, Post Traumatic Stress Disorder (PTSD), and had begun using alcohol to cope. One out of 5 women participants

stated that she now dealt with anxiety (Stevelink & Fear, 2016). All reported initially having struggled with the onset of her visual impairment (Stevelink & Fear, 2016). After a while, the women reported that integrating low vision aids and adaptive equipment into daily routine assisted her in the adjustment (Stevelink & Fear, 2016). The women also stated that by relearning previous skills, learning new ones, and exercising a positive attitude aided in the adjustment to the visual impairment (Stevelink & Fear, 2016). Overall, the researchers found that the hindrance to more adaptive coping was the avoidant behaviors such as not seeking out help when needed and the new reliance on alcohol to cope (Stevelink & Fear, 2016).

Gender differences in coping. The research examining the differences between how men and women cope with stress and stressful situations is widely represented in the literature. The presence of significant differences between men and women in the research listed factors such as self-reported stress, neurological reactions, and how the management or coping is manifested in the diagnosis of anxiety disorders and depression (Chaplin, Hong, Bergquist, & Sinha, 2008; Herscher, 2017; Matud, 2004; Wang, 2007). The research exploring the differences in coping looked at how individuals identified their gender (Chaplain et al., 2008; Herscher, 2017; Matud, 2004; Simpson et al., 2008). Individuals who have a gender identity as a woman or man and those whose sex is woman or man show no differences in either category in regard to coping (Simpson et al., 2008). These results did not vary, whether the individual identified as masculine or feminine, man or woman, or male or female (Simpson et al., 2008). Women reported more stress, having poorer health, feelings of anxiety, and occurrences of depression (Herscher, 2017). In instances of acute stress, men use the fight or flight mechanisms, while women lean more toward the tend and befriend modality (Herscher, 2017; Matud, 2004). For individuals whose gender identity is that of a woman, the reports of lower wages (Herscher,

2017; Phillips, 2005), gender stereotyping (Phillips, 2005), less access to adequate health care (Herscher, 2017; Newman, 2016; Phillips, 2005), poorer health (obesity and diabetes) (Phillips, 2005), and social inequalities (Herscher, 2017; Matud, 2004; Newman, 2016; Phillips, 2005) set the stage and provide all the ingredients for experiencing stress and anxiety. Individuals whose gender identity is that of a woman tend to be more nurturing, have emotionally led decisions, and are still expected to adhere to the gender role assigned by the society in which she lives (Matud, 2004; Phillips, 2005). Since research has suggested that there is no observable difference between sex or gender in regard to how women cope, this dissertation will include gender identity as a demographic variable.

Spirituality, Coping, and Visual Impairments

Brennan (2002) investigated the role of spiritual and religious beliefs on a population of middle-aged and older adults (ages 45 to 65 and ages 65 and older) with vision loss. The sample was comprised of 195 men and women with a recent onset of a visual impairment and who had sought out rehabilitation services (Brennan, 2002). The purpose of the study was to investigate what aspects (if any) of spirituality and religion helped buffer the stress associated with vision loss and life stress (Brennan, 2002). The results of the study suggested that reliance on spirituality and religion helped with the coping with the negative, stressful life events (Brennan, 2002).

Brennan's (2004) study examined the same 195 participants from the 2002 study of middle-aged and older adults with a recent onset of a visual impairment. In this investigation, Brennan (2004) wanted to see if religious and spiritual reliance could predict better adaptation to the vision loss. The results from the analysis of data collected suggested that high reliance on religiousness and spirituality could predict the adjustment and adaptation. One implication of the

study stated that understanding this aspect of an individual's reliance could inform how professionals might more effectively assist with the adjustment process (Brennan, 2004).

Yampolsky et al., (2008) investigated the role spirituality has on coping with a visual impairment with a sample of 85 participants, comprised of both men and women, ranged in age from 23 to 97 years old. The time of onset of the visual impairment also varied between participants. The researchers used both the Brief Cope and the religious well-being subscale of the Spiritual Well-Being Scale (Yampolsky et al., 2008). The results demonstrated that high levels of spirituality were predictors of more adaptive coping (Yampolsky et al, 2008).

Conclusions

The origins of chronic illness and disability have been explained and how they have a foundation in spirituality and religion (Rubin & Roessler, 2008; Sullivan, 2011). Throughout the years, the rather negative relationship has shifted from a form of punishment and retribution to that of one of reliance, comfort, and strength (Wachholtz et al, 2007). Previously, the terms spirituality and religion have been used interchangeably (Brennan, 2002, 2004; Tanyi, 2002). However, more recent practitioners of spirituality state that there is a marked difference in religion and spirituality (Rodriguez et al., 2013; Tanyi, 2002). The differences are not limited to just religious affiliation, but research has noted differences in gender as in biological male and female and gender identity as man and woman, where women rely more on spirituality and spiritual practices and seek those practices more frequently (Cotton et al., 2006; Simpson et al., 2008).

In the event of a stressful life event, individuals react and behave in various ways (Billings & Moos, 1981; Mount and Dillon, 2014; Smart, 2009). These behaviors range from adaptive and approach-oriented, where the individual seeks out constructive and problem-

focused actions to deal with the stressor (Billings & Moos, 1981) to maladaptive and avoidant-oriented, where he or she may use distracting activities to avoid thinking about or dealing with the stressor (Billings & Moos, 1981; Mount & Dillon, 2014). Research has suggested that there are gender differences in how men and women use problem-solving techniques to cope (Chaplain et al., 2008; Herscher, 2017; Matud, 2004; Simpson et al., 2008). These differences are present in regard to coping with a disability (Cotton et al., 2006).

The literature is limited in regard to investigating the relationships between spirituality, gender, coping and visual impairments. Brennan (2002, 2004) and Yampolsky et al., (2008) both examined adults (men and women) in reference to spirituality and coping with presence of a visual impairment. However, neither study investigated which particular attributes of spirituality influenced the adaptive and approach-oriented coping behaviors. Again, in each of the studies, the sample of participants was comprised of individuals whose biological sex was man or woman. This study included both biological sex and gender identity as variables (focusing on the woman gender identity subgroup) and investigated each of the four attributes of spirituality (purpose and meaning in life, inner resources, unifying inner connectedness, and transcendence) and any relationship to the adaptive and approach-oriented coping behaviors.

CHAPTER 3: Methodology

Although chronic illness and disability was previously thought to be rooted in spiritual and religious retribution or punishment for sin and demon possession, there has been a shift away from religious affiliation towards more conceptual spirituality and spiritual practices by society (Moss & Dobson, 2006). More people are relying on these spiritual practices to cope with stress and stressful life events. The purpose of this research study was to investigate the relationship between spirituality and coping in women with a visual impairment.

Target Population

The target population for this study was individuals who have a gender identity as a woman (ages 18 years and older) who have a visual impairment.

Sampling Procedures

A letter of inquiry and intent was sent to state vocational rehabilitation counselors for services for the blind, The National Federation for the Blind email list serve, the American Counsel of the Blind email List Serve, and other agencies that assist people with disabilities for recruitment in this study (Appendix A). The letter described the purpose of the study, copies of the informed consent forms, and requested permission to recruit within the specified agency or institution. A link to the online Qualtrics survey was provided within the email request. The use of Social Media via Facebook, was used for recruitment in the research study as approved by the University of Arkansas Institutional Review Board. Blind Pen Pals, Blind Power,Blind and Visually Impaired Social Network, and the Blind and Visually Impaired People Facebook groups each permitted posting of the online survey to their respective message boards for recruitment. The Brief Cope and Spirituality Assessment Scale were made available online via secured link to the assessments. Qualtrics was used to administer both assessments for ease of sampling and for

accommodating any accessibility barriers. Three common forms of assistive technology were evaluated with Qualtrics to ensure compatibility. The Job Access with Speech (JAWS) screen reading software, the voice over accessibility option with Apple products, and the Non-Visual Desktop Access (NVDA) screen reading software were tested and identified as being compatible and accommodated visual impairments.

Confidentiality. To ensure confidentiality of all participants and data collected, specific measures were implemented to maintain security. No personal identifiable information was collected from the participants to maintain anonymity. All demographic information and scores from both instruments were retrieved electronically from the Qualtrics website, accessed via password. Access to the collected data was limited to the researcher and the immediate supervisor. The research computer is password protected. The computer on which the researcher works is located in the researcher's lock-enabled office.

Instruments

Brief Cope. The Brief Cope is a 28-item assessment instrument that is used to measure coping behaviors (Appendix B). The Brief Cope was developed by Carver (1997) and has a 4-point Likert scale with responses ranging from "I haven't been doing this at all" to "I've been doing this a lot." The Brief Cope measures two forms of coping behaviors, those of approach and adaptive coping and those of avoidant and maladaptive coping (Carver, 1997; Yampolsky et al., 2008). The items are statements about activities and feelings. The individual responds to how often he or she might have been doing these activities after the occurrence of a stressful life event. For the purpose of this research study, the participants of the study focused on the presence of the visual impairment. These behaviors include items focused on approach and adaptive coping behaviors like humor, acceptance, emotional support, and problem solving.

Approach coping behavior statements include “I’ve been getting emotional support from others” and “I’ve been getting help or advice on what to do.” The other items include avoidant and maladaptive coping behaviors such as substance use (alcohol and/or drugs), distracting activities, denial, and venting negative attitudes. The avoidant coping behavior statements include items such as “I’ve been saying to myself ‘this isn’t real’” and “I’ve been using alcohol or other drugs to make myself feel better.”

In the development phase, Carver (1997) administered the Brief Cope to hurricane Andrew survivors 3-6 months post hurricane, 6 months later, and 1 year after the second administration. The first administration of the Brief Cope consisted of 168 participants comprised of 66% female and approximately 40% non-Hispanic white individuals (Carver, 1997). The second administration had 124 of the first set of participants completing the assessment. Finally, the third administration of the assessment had 126 participants. Reliability coefficients for the subscales ranged from 0.45 to 0.92 (Yampolsky et al., 2008). No other demographic information was available for the 2nd and 3rd administration of the Brief Cope.

Yampolsky et al., (2008) also used the Brief Cope in their study about the role spirituality plays in coping with a visual impairment. The internal consistency reliability coefficient calculated by Yampolsky et al, (2008) yielded an alpha of 0.77 with 85 participants comprised of both men and women. The Brief Cope has two items focusing on religion and spirituality. Yampolsky et al., (2008) omitted one of these spirituality items to control for a falsely inflated correlation with the other spirituality-related instrument used in their study.

In this study, the researcher investigated the relationship between the approach coping behavior statements and the Spirituality Assessment Scale with the two items spirituality and religious items included to maintain the integrity of the original scale.

Spirituality Assessment Scale. The Spirituality Assessment Scale (SAS) is a 28-item assessment that measures spirituality (Appendix C). The developer of the SAS defined spirituality as a dimension of a person's being that is comprised of elements such as purpose and meaning of life, inner resources, inner connectedness, and transcendence (Howden, 1992). The SAS is comprised of statements that reflect these four attributes. The individual responds about the degree to which he or she agrees or disagrees to each statement. For the attribute of purpose and meaning of life, examples of statements include "There is fulfillment in my life." and "My life has meaning and purpose.". The second attribute, inner resources, includes statements such as "I rely on an inner strength in hard times." and "I have a sense of harmony or inner peace.". The third attribute, unifying inner connectedness, includes such statements as "I have a general sense of belonging." and "I feel a connection to all of life.". Finally, the fourth attribute, transcendence, includes statements such as "I have experienced moments of peace in a devastating event." and "I have the ability for self-healing.".

The SAS uses a Likert scale format ranging from strongly disagree to Strongly Agree. There are no neutral responses (Howden, 1992). Each response has been assigned a point value ranging from 1 for Strongly Disagree to 6 for Strongly Agree (Howden, 1992). Scores from 113 to 168 equal Strong Spirituality, from 57 to 112 equal Moderate Spirituality, and scores from 28 to 56 equal Low Evidence of Spirituality (Howden, 1992). In the development of the SAS, it was found to have high internal consistency (coefficient alpha = 0.92; Howden, 1992). The sample was comprised of 189 adults whose ages ranged from 40 to 68 (Howden, 1992). The sample was split between men and women and was predominantly white (94.7%) (Howden, 1992). Each of the subscales had moderate to high internal consistency with purpose and meaning of life at 0.91, inner resources at 0.79, unifying inner connectedness at 0.80, and transcendence at 0.71

(Howden, 1992). Brennan (2002) used the Spirituality Assessment Scale in his study investigating adjustment to acquired visual impairment with middle-age and older adults (ages 45 to 65 and ages 65 and older). The internal consistency reliability coefficient was comparable to Howden's (1992) with an alpha equal to 0.91. The researcher obtained written permission from the developer for use in this study (Appendix D).

All items of the current version of the Spirituality Assessment Scale are positively worded. The researcher gained permission from the developer to add additional items that were negatively worded to help control for response patterns in the assessment (Appendix E). The researcher added an additional 8 items to the current version of the SAS, 2 items per subscale (Appendix F). During analysis of the data collected, the researcher omitted those additional items.

Demographic information. The researcher collected demographic information from each participant of the study (Appendix G). Information collected included gender identity, race/ethnicity, education, relationship status, age of onset of visual impairment, current age, type of onset, current state of residence, and description of visual impairment.

Data Collection

A link was provided to individuals who chose to participate in this research study. The informed consent form and IRB approval number appeared first on the Qualtrics Survey screen (Appendix H and I). By selecting {I have read the informed consent form and agree to participate in this research study} at the bottom of the page, the participant affirmed that they had read the form and consented to participate. If the participant selected {I decline to participate}, they were taken immediately to the Thank You screen located at the end of the survey. The

participant was informed that they could request a copy of the informed consent form from the researchers or print the screen from the survey.

The next screen began the first instrument, the Brief Cope. After the participant had completed the 28 items of the Brief Cope, they selected {Next} to begin the second instrument, the Spirituality Assessment Scale.

The next screen began the 36-items (28 original, positively worded plus the 8 additional negatively worded items) of the Spirituality Assessment Scale. After the participant completed this portion of the survey they selected {Next} at the bottom of the screen to proceed to the Demographic Information screen.

The demographic survey collected no identifiable personal information from the participants. The purpose for this collection of data is for use in describing the target population.

Research Questions

The researcher identified the following questions to guide this dissertation:

1. Is there a significant relationship between self-reported spirituality and coping responses in women with an onset of a visual impairment?
2. Is there a significant relationship between self-reported levels of spirituality and approach coping in women with an onset of a visual impairment?
3. Is there a significant relationship between self-reported spirituality and avoidant coping responses in women with an onset of a visual impairment?
4. Is there a significant relationship between the four attributes of spirituality (purpose and meaning of life, inner resources, unifying inner connectedness, transcendence) and approach coping or avoidant coping responses in women with an onset of a visual impairment?

5. Are there differences in spirituality and coping scale scores in women, with an onset of a visual impairment, based on demographic variables (e.g. age, marital status, employment status)?

Hypotheses

The researcher posited the following hypotheses for this dissertation:

1. There will be a strong positive correlation between total test scores on the Spirituality Assessment Scale and the Brief Cope.
2. There will be a strong positive correlation between scores on the SAS and the Approach coping behavior scale on the Brief Cope.
3. There will be a strong negative correlation between the scores on the SAS and the Avoidant coping behavior scale on the Brief Cope.
4. There will be a relationship (positive or negative) between any or all of the four attributes of spirituality (purpose and meaning of life, inner resources, unifying inner connectedness, transcendence) and either approach or avoidant coping responses.
5. There will be differences in spirituality and coping scale scores in women, with an onset of a visual impairment, based on demographic variables.

Statistical Analysis

This study is a quantitative research study. SAS 9.4 was used to run all data through statistical analyses. Descriptive statistics were calculated using the demographic information collected to categorize participants. Both instruments' Chronbach coefficient Alpha were calculated to determine internal consistency reliability. A factor analysis was run to determine factor structure of the determined constructs as first posited by the developers of both instruments. The Pearson Product-Moment Correlation coefficient r was calculated to evaluate

the degree of relationship (correlation) between self-reported levels of spirituality and coping responses using total instrument scores. A correlation matrix was constructed to evaluate the instruments as a whole and the subscale relationships. This analysis was used to assist in determining which components of spirituality are most related to coping and how much unique variability they each account for. Finally, a multivariate analysis of variance was conducted to evaluate if select demographic variables had an impact on spirituality or coping in the sample participants.

Effect size. An effect size is the strength of the relationship between variables (Asamoah, 2014). In a Pearson Product-Moment Correlation the value of r represents the effect size (Asamoah, 2014; Curtis et al., 2016). Cohen (1988, as cited in Asamoah, 2014; Curtis et al., 2016) provided an interpretation for that value of r. The interpretation for the effect size is 0.1 equals small or weak, 0.3 is moderate, and 0.5 or higher is strong (Curtis et al., 2016).

Summary

In summation, this chapter described the methods for conducting this research study. The target population was identified and the sampling procedures that were undertaken were discussed. The design of the study, including the instruments being used, the format of the online surveys, and methods for administering the study were outlined. The adherence to participant confidentiality, as per Institutional Review Board guidelines were addressed. The research questions and hypothesis that guided this study were listed. Finally, the statistical analysis procedures that were used were discussed regarding the data that was collected. The subsequent chapters of this study will provide an interpretation of the results of the study and a discussion of the implications of the results.

CHAPTER 4: Results

Preliminary Steps

The first steps the researcher took prior to analysis was rescaling of the Brief Cope to reflect the original scoring of the instrument. Qualtrics defaults to a 1 value to begin scoring for the responses and the Brief Cope has a range from 0 to 3 (Carver, 1997). Since one set of the items (approach coping behaviors) are intended to reflect adaptive/positive behaviors, the avoidant coping behavior items were reverse coded to reflect a more plausible total instrument score.

Data Screening

The initial screening of the data resulted in the researcher setting aside 3 observations with coping scores that suggested an improbable response pattern (e.g. totals of avoidant coping scores equal to 0 combined with approach coping scores equal to 3; and then avoidant coping scores equal to 3 combined with approach coping scores equal to 0, which suggests that they do all or none of the coping behaviors all the time). Data that was intended to be a numerical value was changed from text to that numerical value (e.g. birth was changed to 0 to represent years). One participant who marked her age as 14 was omitted from final analysis because the IRB was not approved for minors.

Demographic Descriptive Statistics

Sample demographics included 172 participants who identified their gender as a woman and 2 who marked transgendered female. Participants (n = 174) in this study were predominantly white (80.46%) with smaller representation in the other categories of race. Demographic statistics are shown in Table 1. The average age of the participants (n = 167) was 46.65 (SD = 15.16), with a range of 18 to 78. The average age of onset of the participants' (n = 165) visual

impairment was 16.24 (SD = 18.11), with a range of birth to 61 years old. The average length of vision loss was 30.47 (SD = 20.44). Demographic statistics are shown in Table 1.

Table 1
Statistics for Participants' Races and Ages

Race	N	%
White	140	80.46
Black	12	6.90
Asian	6	3.45
Hispanic	4	2.30
Two or more races	7	4.02
Not Listed	5	2.87
Age Data (in years)	M	SD
Age of Onset	16.24	18.11
Current Age	46.65	15.16
Duration	30.47	20.44

Visual Identification and Type of Onset

The respondents were given the opportunity to choose from four different visual classifications. Of the women who answered (n = 173), a majority identified as being legally blind (41.62%) followed by 38.15% reporting being completely blind (See Table 2). The sample (n = 169) is comprised of 34.91% with an acute or sudden onset of the visual impairment and 65.09% stating that her visual impairment was chronic or progressive in nature. Demographic statistics on visual identification and type of onset are shown in Table 2.

Table 2
Visual Identification and Type of Onset Demographics

Visual Identification	N	%
Low Vision	13	7.51
Visually Impaired	22	12.72
Legally Blind	72	41.62
Completely Blind	66	38.15
Type of Onset	N	%
Acute	59	34.91
Chronic	110	65.09

Education

The women who participated in the study had a higher level of education than the general population with only 9.25% having a high school diploma or less. The majority of participants had a college degree with 34.68% having a Bachelor's and 26.01% having a graduate degree (See Table 3).

Table 3
Participants' Education Levels

Education Level	N	%
Below High School	3	1.73
GED/HS Diploma	13	7.51
Some College	34	19.65
Associate's	17	9.83
Bachelor's	60	34.68
Master's	6	3.47
Doctoral Degree	39	22.54
Prefer not to answer	1	0.58

Employment Status

The participants were asked to select their employment status at the time of the survey. Of the respondents who chose to answer (n = 172), 46.51% were employed and or in school. More than half of the sample were unemployed (50.58%). Demographic statistics on employment status are shown in Table 4.

Table 4
Participant Employment Demographics

Employment	N	%
Full-Time	41	23.84
Part-Time	26	15.12
In School	13	7.56
Unemployed, looking for work	42	24.42
Unemployed, not looking for work	45	26.16
Prefer not to answer	5	2.91

Relationship Statistics

The women were asked to indicate their relationship status. Approximately half of the participants were married or in a relationship (49.42%), while the remainder were not involved with a partner (48.86%). Three participants chose not to answer. Demographic statistics for relationship status are shown in Table 5.

Table 5
Relationship Status Demographics

Relationship Status	N	%
Single	52	29.89
Divorced	23	13.22
Married	56	32.18
Widow	10	5.75
In a relationship	30	17.24
Prefer not to answer	3	1.72

Demographic Statistics on Geographical Location

The participants were given the opportunity to input where they resided at the time of the survey. The respondents who opted to answer (n = 151), had representation in each of the 5 regions of the United States as well as 10 foreign countries. The five regions in the United States are Northeast, Southeast, Midwest, Southwest, and West. The demographic statistics on geographical location are depicted in Table 6 by region. The distribution by state of each region is also shown. The participants residing in foreign countries are also provided in Table 6.

Table 6
Demographic Statistics by Geographical Location

United States Regions				
Northeast	Southeast	Midwest	Southwest	West
(n=25, 14.97%)	(n=59, 35.33%)	(n=27, 16.17%)	(n=15, 8.98%)	(n=25, 14.97%)
Maryland = 1	W. Virginia = 1	Ohio = 8	Texas = 8	California = 12
Rhode Island = 1	Virginia = 5	Indiana = 4	Oklahoma = 2	Oregon = 4
Connecticut = 1	Tennessee = 9	Illinois = 1	Arizona = 1	Washington = 1
New Jersey = 2	Kentucky = 5	Michigan = 3	New Mexico = 4	Nevada = 1
New York = 4	N. Carolina = 8	Missouri = 2		Hawaii = 1

Table 6 (Cont.)

Demographic Statistics by Geographical Location

Pennsylvania = 8	S. Carolina = 3	Wisconsin = 2	Idaho = 1
Massachusetts = 6	Georgia = 4	Minnesota = 5	Iowa = 3
DC = 1	Arkansas = 14	S. Dakota = 1	Utah = 2
Maine = 1	Florida = 10	Kansas = 1	

Outside of the United States (n=16, 9.58%)

Australia = 3	Ireland = 2
England = 2	Jamaica = 1
Finland = 1	Norway = 2
Germany = 1	Scotland = 1
Greece = 1	United Kingdom = 2

Note. Location was a write-in variable, which is why there are countries listed that are included in the United Kingdom as well as the United Kingdom as a whole.

Factor Analysis

Principle components analysis was used based on the previous research and development of each instrument. Yampolsky et al., (2008) identified adaptive and maladaptive coping behaviors in the Brief Cope. Howden (1992) identified 4 constructs with the Spirituality Assessment Scale. It is these previous criteria that provided the limits to the PCA for this study.

The Brief Cope.

The initial eigenvalues showed that the first factor explained 24.4% of the variance and the 2nd factor explained 17.5% of the variance. The factor analysis presented 8 factors with eigenvalues over 1.0. Those are presented in Table 7. A 3rd factor was shown to represent 9.8% of the variance and a 4th factor 6.5% of the variance. The remaining 4 factors represent 18.2% of the variance.

Table 7

The Brief Cope Eigenvalues

Factor	Eigenvalue
1	6.843337
2	4.905824
3	2.766046

Table 7 (Cont.)

The Brief Cope Eigenvalues

4	1.843736
5	1.615065
6	1.381836
7	1.092889
8	1.02396

Note. Only eigenvalues above 1.0 are shown

The researcher chose to use an orthogonal solution for the PCA in this study. The prior research with the Brief Cope did not specify which factor solution was being used for the analysis in those research studies. Because the 2 factors are assumed to be uncorrelated (no relationship), the researcher opted for the varimax rotation. The results of this factor analysis, as presented in Table 8, have 14 items loading strongly on the first factor, 11 items loading on factor 2, and 3 items not significantly loading on either factor. The 3 items that did not load strongly on either factor were item 11 " I've been trying to find comfort in my religion or spiritual beliefs", item 12 "I've been praying or meditating", and item 17 "I've been turning to work or other activities to get my mind off things". Factor loadings are shown in Table 8. Although this factor analysis differed from the original subscale division, the researcher opted to retain the original structure of the subscales based on the prior research and that this population was different from the development population. The researcher cautions against any generalizations being made due to the small sample size (n= 160). Yampolsky et al., (2008) had originally excluded item 12 from their research study to control for falsely inflated correlations with their Spiritual Well-Being Scale. Again, the researcher retained all items as originally posited by the developer. For clarification, a factor is similar to a theme or construct that has a predetermined definition. When a researcher states that items load onto that factor, they mean

that the item aligns with the definition of that factor or construct and that the statistical analysis demonstrates how strongly they load.

Table 8
Factor Loadings for the Brief Cope

Item	Factor 1: Approach	Factor 2: Avoidant
C1R	74*	-11
C2R	76*	11

Table 8 (Cont.)
Factor Loadings for the Brief Cope

C3R	70*	-13
C4R	74*	-11
C5R	72*	14
C6R	71*	18
C7R	60*	29
C8R	60*	24
C9R	58*	12
C10R	59*	16
C11R	22	-2
C12R	11	-4
C13R	68*	0
C14R	67*	4
C15R	58*	-27
C16R	60*	-25
C17RR	-11	27
C18RR	2	46*
C19RR	20	71*
C20RR	26	66*
C21RR	-21	62*
C22RR	-22	61*
C23RR	0	58*
C24RR	4	58*
C25RR	33	72*
C26RR	19	78*
C27RR	-6	66*
C28RR	-4	69*

Note. An * denotes significance.

Internal Consistency Reliability Coefficients: Chronbach's Alpha.

The results of the analysis for internal consistency reliability was higher than previous studies with alpha = 0.85 (Yampolsky et al., 2008 had alpha = 0.77). The Approach Coping subscale had alpha = 0.88. The Avoidant Coping subscale was alpha = 0.84. Chronbach's alphas (both raw and standardized) are shown in Table 9.

Table 9
Chronbach's Alphas: Brief Cope

Scale	Raw	Standardized
Approach Coping	0.88	0.87
Avoidant Coping	0.84	0.86
Total Brief Cope	0.85	0.86

Spirituality Assessment Scale.

The initial eigenvalues showed that the first factor explained 36.6% of the variance, the 2nd factor 9.7% of the variance, the 3rd factor 6.8% of the variance, and the 4th factor 5.6% of the variance. The factor analysis presented a total of 7 factors with values over 1.0 and are shown in Table 10. The remaining 3 factors accounted for 11.9% of the variance.

Table 10
Spirituality Assessment Scale Eigenvalues

Factor	Eigenvalue
1	10.26643
2	2.723421
3	1.908059
4	1.5698
5	1.257965
6	1.063282
7	1.018028

Note. Only eigenvalues above 1.0 are shown.

The researcher chose to use an orthogonal factor solution fir tgus O/ca. The prior research with the Spirituality Assessment Scale did not specify which factor solution was used during their analysis. The researcher in this study opted to use the varimax rotation. The results from this factor analysis had a factor structure that differed from the original developer's. The factor loadings from this study's analysis is shown in Table 11. The original subscale structure is presented in table 12 with the items. The current factor structure found by this analysis is shown in Table 13. In this study, the researcher maintained the original subscale of the items as developed because of the prior research.

Table 11

Rotated Factor Pattern for the Spirituality Assessment Scale

Item	Factor 1	Factor 2	Factor 3	Factor 4
SP1	71*	6	17	-8
SP2	54*	18	18	20
SP3	41*	58*	0	4
SP4	-14	13	-16	83*
SP5	33	34	35	-2
SP6	63*	2	31	41*
SP7	41*	11	32	56*
SP8	11	63*	25	12
SP9	19	2	20	50*
SP10	23	24	81*	6
SP11	21	45*	47*	20
SP12	64*	24	41*	-3
SP13	10	52*	24	10
SP14	18	82*	6	9
SP15	0	29	61*	29
SP16	81*	20	8	-4
SP17	80*	7	9	-10
SP18	87*	14	4	7
SP19	-3	14	2	84*
SP20	76*	22	22	-3
SP21	58*	31	30	11
SP22	73*	36	9	8
SP23	25	62*	51*	10
SP24	17	75*	6	5
SP25	49*	22	25	20
SP26	74*	4	14	13
SP27	28	4	82*	-8
SP28	62*	35	-3	19

Note. An * denotes significance.

Table 12

Spirituality Assessment Scale Original Subscale Structure

Purpose and Meaning in Life Subscale
18. There is fulfillment in my life.
20. The meaning I have found for my life provides a sense of peace.
22. My life has meaning and purpose.
28. I have goals and aims for my life.

Spirituality Assessment Scale Original Subscale Structure

Inner Resources Subscale
8. I rely on an inner strength in hard times.
10. I can go to a spiritual dimension within myself for guidance.
12. I have a sense of harmony or inner peace.
14. I have an inner strength.
16. I feel good about myself.
17. I have a sense of balance in my life.
23. My innerness or an inner resource helps me deal with uncertainty in life.
24. I have discovered my own strength in time of struggle.
27. My inner strength is related to a belief in a Higher Power or Supreme Being.
Unifying Inner Connectedness Subscale
1. I have a general sense of belonging.
2. I am able to forgive people who have done wrong to me.
4. I am concerned about destruction of the environment.
6. I feel a kinship to other people.
7. I feel a connection to all life.
9. I enjoy being of service to others.
19. I feel a responsibility to preserve the planet.
25. Reconciling relationships is important to me.
26. I feel a part of the community in which I live.
Transcendence Subscale
3. I have the ability to rise above or go beyond a physical or psychological condition.
5. I have experienced moments of peace in a devastating event.
11. I have the ability to rise above or go beyond a body change or body loss.
13. I have the ability for self-healing.
15. The boundaries of my universe extend beyond the usual ideas of what space and time are thought to be.
21. Even when I feel discouraged, I trust that life is good.

Table 13
Factor Structure from Current Analysis

Factor 1
1. I have a general sense of belonging.
2. I am able to forgive people who have done wrong to me.
3. I have the ability to rise above or go beyond a physical or psychological condition.
6. I feel a kinship to other people.
7. I feel a connection to all life.
12. I have a sense of harmony or inner peace.

Table 13 (Cont.)
Factor Structure from Current Analysis

16. I feel good about myself.
17. I have a sense of balance in my life.
18. There is fulfillment in my life.
20. The meaning I have found for my life provides a sense of peace.
21. Even when I feel discouraged, I trust that life is good.
22. My life has meaning and purpose.
25. Reconciling relationships is important to me.
26. I feel a part of the community in which I live.
28. I have goals and aims for my life.
Factor 2
3. I have the ability to rise above or go beyond a physical or psychological condition.
8. I rely on an inner strength in hard times.
11. I have the ability to rise above or go beyond a body change or body loss.
13. I have the ability for self-healing.
14. I have an inner strength.
23. My innerness or an inner resource helps me deal with uncertainty in life.
24. I have discovered my own strength in time of struggle.
Factor 3
10. I can go to a spiritual dimension within myself for guidance.
11. I have the ability to rise above or go beyond a body change or body loss.
12. I have a sense of harmony or inner peace.
15. The boundaries of my universe extend beyond the usual ideas of what space and time are thought to be.
23. My innerness or an inner resource helps me deal with uncertainty in life.
27. My inner strength is related to a belief in a Higher Power or Supreme Being.
Factor 4
4. I am concerned about destruction of the environment.
6. I feel a kinship to other people.
7. I feel a connection to all life.
9. I enjoy being of service to others.
19. I feel a responsibility to preserve the planet.

Note. Italicized items indicate an association with a secondary factor that is weaker, yet still above the threshold for significance. Items that are bold and italicized associate similarly with two factors.

Internal Consistency Reliability Coefficient: Chronbach's Alpha

The results of the analysis for internal consistency reliability was similar to the previously reported values, at alpha = 0.93 for the entire scale (Brennan, 2002). This analysis also has alphas comparable to Howden's (1992) development. A comparison of alphas is presented in Table 14.

Table 14
Alpha Comparison Table

Scale/Instrument	Original Development	Current Study
Spirituality Assessment Scale	0.92	0.93
Purpose and Meaning in Life	0.91	0.89
Inner Resources	0.79	0.85
Unifying Inner Connectedness	0.8	0.79
Transcendence	0.71	0.76

Total Instrument Score Statistics

The mean of each instrument was calculated to provide an overview of how the participants responded on average. The sample (n = 160) who answered each of the Brief Cope items have a mean score of 56.96 (SD = 12.46). According to the scoring and interpretation guidelines by Carver (1997), a score above 56 suggests that the individual uses more adaptive and constructive coping behaviors.

On the Spirituality Assessment Scale, the sample (n = 161), the mean score was 123.36 (SD = 19.06). Howden (1992) provided scoring and interpretation guidelines that state a SAS score between 113 and 168 represents a strong identification with spirituality.

Hypothesis Testing

Hypothesis 1: Correlational analysis. There will be a strong positive correlation between total test scores on the Spirituality Assessment Scale and the Brief Cope.

A Pearson Product-Moment Correlation was conducted between the Brief Cope and the spirituality Assessment Scale. The results of the analysis showed r(149) = .46, $p < .0001$. According to Cohen (1988), in the field of social science research, a strong correlation is represented by values around .5. The researcher set aside 3 statistical outliers based on the response pattern of those responses. Figure 4.1 is the correlation scatter plot with outliers removed.

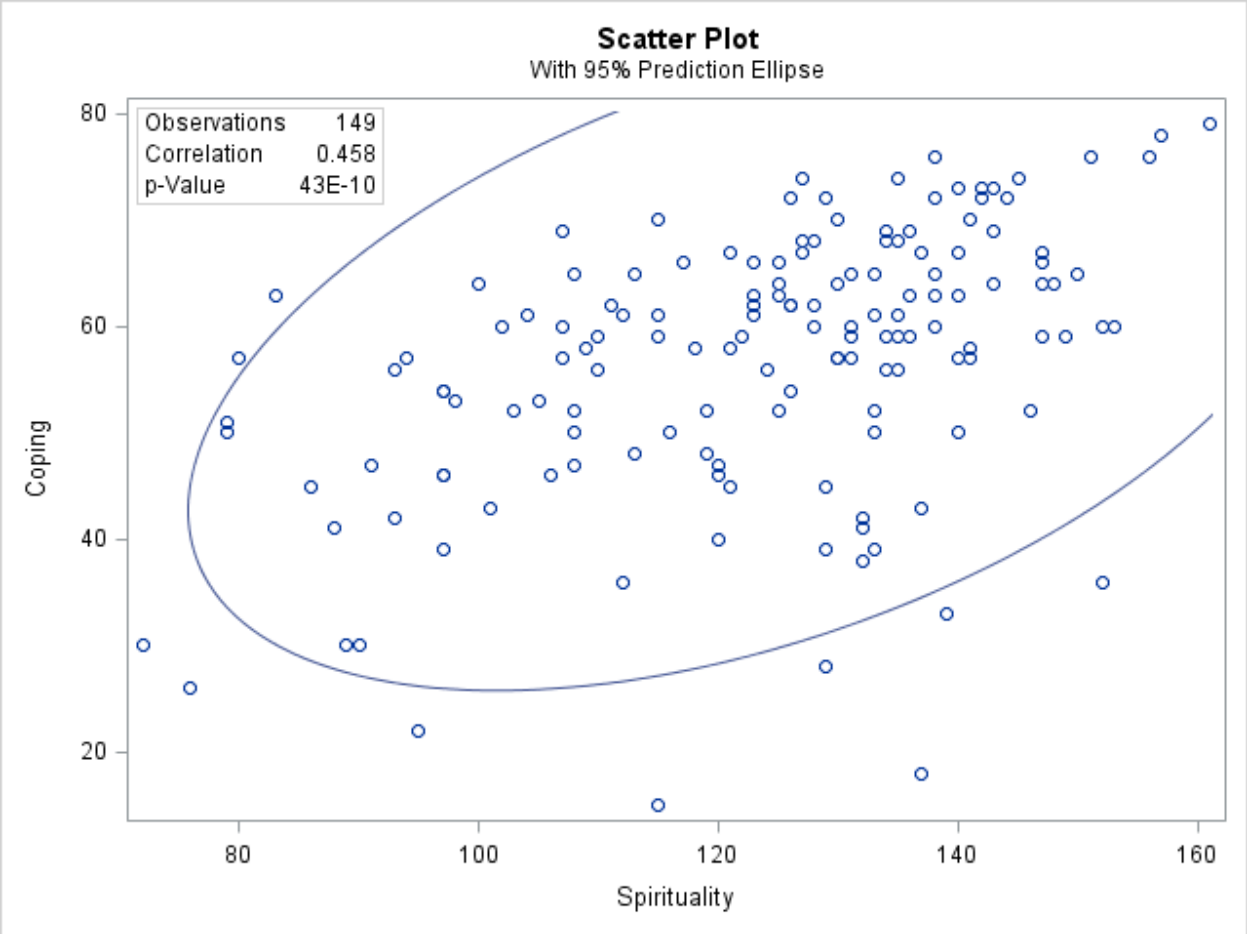

Figure 4.1.

Hypothesis 2: Correlational analysis. There will be a strong positive correlation between scores on the SAS and the Approach Coping behavior questions on the Brief Cope.

The correlation between the total instrument score on the Spirituality Assessment Scale and the Approach Coping behavior items on the Brief Cope resulted in r(151) = .32, $p < .0001$. Again, research in the social sciences measures the strength of a moderate correlation at .3.

Hypothesis 3: Correlational analysis. There will be a strong negative correlation between the score on the SAS and the Avoidant coping behavior questions on the Brief Cope.

The items of the Avoidant coping subscale of the Brief Cope were reverse coded prior to analysis to align with the developer's scoring. The values shown for the Avoidant Coping subscale are interpreted inversely. The correlation between the total instrument score on the Spirituality Assessment Scale and the Avoidant Coping behavior items on the Brief Cope resulted in r(154) = -.38, $p < 0.0001$. As stated previously, a moderate correlation has a value around .3.

Hypothesis 4: Correlational analysis. There will be a relationship (positive or negative) between any or all of the four attributes of spirituality (purpose and meaning in life, inner resources, unifying inner connectedness, transcendence) and either approach or avoidant coping responses.

A correlation matrix was constructed and is shown in Table 15. The analysis presented a positive correlation between several of the subscales of both instruments. Unifying Inner Connectedness of the SAS and the Approach Coping subscale of the Brief Cope is r(156) = .36, $p < .0001$. The Purpose and Meaning in Life subscale of the SAS and the Avoidant Coping subscale of the Brief Cope resulted in r (163) = .50, $p < .0001$. Each of the subscale correlations of the Spirituality Assessment Scale had strong positive correlations as expected. However, the subscales of the Brief Cope are typically thought to be inversely related (negatively correlated) and they are in this research. Although the correlations are numerically positively correlated in

the table, the Avoidant scale scores have been recoded in order to allow them to be added to the total score. Thus higher Avoidant scale scores represent lower usage of the Avoidant Coping. Thus the correlation values with the Avoidant scale should all be interpreted as inverse relationships. For example, the more positive and constructive the problem-solving behaviors, the less likely one will demonstrate the maladaptive or harmful behaviors. The analysis showed a weak correlation between Approach Coping and Avoidant Coping at $r(160) = .06$, $p = .44$.

Table 15
Correlation Matrix

	Spirituality	Purpose and Meaning in Life	Inner Resources	Unifying Inner Connectedness	Transcendence	Coping	Approach	Avoidant
Spirituality	1.00							
Purpose and Meaning in Life	0.83	1.00						
Inner Resources	0.90	0.72	1.00					
Unifying Inner Connectedness	0.84	0.62	0.60	1.00				
Transcendence	0.82	0.56	0.72	0.57	1.00			
Coping	0.46	0.43	0.35	0.47	0.35	1.00		
Approach	0.32	0.19	0.22	0.36	0.27	0.87	1.00	
Avoidant	0.38	0.50	0.33	0.30	0.26	0.56	0.06	1.00

Hypothesis 5: Multivariate analysis. There will be differences in spirituality and coping scale scores in women, with a visual impairment, based on demographic variables.

A multivariate analysis of variance (MANOVA) is conducted when there is an interest in factors that may contribute to the explanation of differences between group means. Three separate one-way MANOVAs were conducted to test for differences between both spirituality and coping responses based on select demographic variables. Type of onset of the visual impairment, the participant's relationship status, and employment status were examined independently of each other.

Type of onset. The Wilks Lambda multivariate test of overall differences ranges from 0 to 1. The smaller the number, the greater the proportion of variance that is being accounted for by the independent variable. The Wilks Lambda test in this study investigating spirituality and coping using type of onset of the visual impairment was equal to 0.99, p= 0.53, F (2, 142) = 0.64 and thus not statistically significant. The effect size was weak as indicated by partial eta-squared = 0.009 for spirituality and 0.003 for coping. A Wilks Lambda test has an alpha set at .1, and thus any values greater than the set alpha is not statistically significant.

Relationship status. The Wilks Lambda test in this study investigating spirituality and coping using relationship status of the participants was equal to 0.94, F (6, 266) = 1.48, p = 0.19, and thus not statistically significant. The effect size was weak as indicated by partial eta-squared = 0.018 for spirituality and 0.047 for coping.

Employment. The Wilks Lambda test in this study investigating spirituality and coping using employment status of the participants was equal to 0.96, F (8, 274) = 0.72, p = 0.67, and thus not statistically significant. The effect size was weak as indicated by partial eta-squared = 0.03 for spirituality and 0.018 for coping.

Table 16
MANOVA Descriptives

Type of Onset	N	Spirituality Mean	Spirituality SD	Coping Mean	Coping SD
Acute/Sudden	52	125.59	16.66	57.90	11.42
Chronic/Progressive	93	121.89	20.11	56.54	13.19
Relationship Status*					
Single	43	120.16	18.81	57.19	12.72
Divorced	20	121.4	19.58	50.50	12.40
Married	50	126.1	19.14	58.72	11.28
In a Relationship	25	122.8	17.72	56.52	13.18
Employment					
Full-Time	34	126.97	15.99	58.56	11.37
Part-Time	25	125.52	18.31	59.12	8.17
In School	11	115.73	19.19	55.00	15.19
Unemployed, looking for work	34	120.06	19.45	56.44	13.04
Unemployed, not looking for work	39	122.59	21.93	54.97	14.65

Note. *Widows were not included in the analysis due to small sample size in that group.

Table 17
Summary of Results

Hypothesis Testing	Results
H1: There will be a strong positive correlation between total test scores on the Spirituality Assessment Scale and the Brief Cope.	Accepted
H2: There will be a strong positive correlation between scores on the SAS and the Approach coping behavior questions on the Brief Cope.	Accepted
H3: There will be a strong negative correlation between the score on the SAS and the Avoidant coping behavior questions on the Brief Cope.	Accepted
H4: There will be a relationship (positive or negative) between any or all of the four attributes of spirituality (purpose and meaning in life, inner resources, unifying inner connectedness, transcendence) and either approach or avoidant coping responses.	Accepted
H5: There will be differences in spirituality and coping scale scores in women, with a visual impairment, based on demographic variables.	Rejected

Chapter 5: Discussion

Purpose

The purpose of this study was to examine coping responses, specifically by women, and the relationship between those coping responses and a woman's self-reported spirituality. It was hypothesized that a strong relationship would be present between spirituality and coping responses. It was also hypothesized that there would be positive correlations between attributes of spirituality and approach coping responses and behaviors. Another hypothesis stated that a negative relationship would be present between attributes of spirituality and the avoidant coping responses and behaviors. Lastly, the researcher wanted to investigate whether any demographic variable would influence scores on the spirituality scale or coping scale.

The Relationship between Spirituality and Coping Responses

In previous studies where spirituality and coping were examined in the population who identified as visually impaired or blind, spirituality or religiousness was seen as a predictor of adaptive coping (Brennan, 2002, 2004; Yampolsky et al., 2008). In comparison, women with other disabilities (e.g. cancer, multiple sclerosis) also had a strong reliance on spirituality or religiousness to help them cope with the diagnosis or onset of the disability (Gaston-Johansson et al., 2013; Levine, 2005; Matthews & Cook, 2009). The relationship examined in this study demonstrated a strong, positive association between spirituality and coping. This approach to spirituality and coping was nonbinary. By nonbinary, the researcher did not suggest that if one has higher levels of spirituality that one does or will cope better than another individual or in contrast, if one does not have high levels of spirituality that one will use the avoidant or maladaptive coping behaviors. It does, however, identify a mechanism that improves coping responses in this population of women with a visual impairment or blindness. The case should be

made that this is not exclusionary to other things or any latent constructs that might assist in more positive coping behaviors. Moreover, it should be mentioned that the results do not delve into those other things or constructs in this study. Past research has given rise to criticism of spirituality or religion as a black or white concept. These results provide a nuanced view into a population realm where previous research is lacking. Furthermore, the researcher needs to differentiate between the two coping behaviors before proceeding. Approach Coping is defined as adaptive and uses constructive problem-solving techniques to deal with stressors or stressful life events. Avoidant Coping behaviors are maladaptive in nature and use activities to avoid dealing with or thinking about a stressor or stressful life event. These two behaviors are traditionally seen as opposites.

Purpose and Meaning in Life and Avoidant Coping. In this study, a strong, negative correlation was seen between the Purpose and Meaning in Life subscale of the Spirituality Assessment Scale and the Avoidant Coping subscale of the Brief Cope. Purpose and meaning in life is defined as the process of discovering people, events, or relationships that provide a sense of value, hope, or reason for existing (Howden, 1992). Avoidant Coping behaviors are defined as strategies and activities that are used to avoid thinking about a stressful life event and are typically seen as maladaptive and unproductive (Billings & Moos, 1981; Smart, 2009). The results of this study support the previously set ideas that while someone is engaged in positive and constructive activities to bring meaning and existence to their life, that they would veer away from any activity that is maladaptive and unproductive in nature. Many times individuals will seek out alternative activities to deal with stress or stressful life events in order to escape unpleasantness or pain to reach an inner calm. In this aspect, those activities are not what is

thought to be avoidant and maladaptive coping behaviors. The researcher does urge caution on generalizing the results to the population at large.

Differences in Spirituality and Coping by the Type of Onset. Previous research suggested that individuals who have an acquired visual impairment have difficulties in coping (Moschos, 2014; Stevelink & Fear, 2016). The analysis of this data showed no difference among coping or spirituality based on the type of onset of the visual impairment. Research into the coping techniques for acquired versus congenital disability has a large presence in the literature and the field of disability studies. Several studies have examined visual impairment as well (Moschos, 2014). The lack of difference in this sample population could be related to a change in how integrated people with visual impairments or blindness are becoming in society. Individuals who acquire a visual impairment are receiving rehabilitative services that provide assistive technologies and adaptive equipment to assist them in maintaining their independence. The access and availability of assistive technology for individuals who are visually impaired, or blind is easier and more affordable (Whiting-Madison, Bullins, & Wilkes, 2017). Several electronic devices and apps are adapted for use by individuals with low to no vision (Whiting-Madison et al., 2017). The integration of such devices into the daily life of an individual who is visually impaired or blind assists in the retention of the independence that is compromised by the loss of sight.

On the basis of reliance on spirituality, whether the individual's visual impairment was gradual and progressive, or whether the loss may be acute and all of a sudden, typically faith, beliefs, and practices is already present in the individual. On the other hand, how an individual lost their vision (acquired versus congenital) has prior research that states that there are differences in coping and adjustment. Individuals who were born with a visual impairment are

often sheltered and protected by parents, siblings, and other family. Their problem-solving is basically task-oriented and lacks the socially constructed method of development of problem-solving skills. Individuals who have an acquired visual impairment or blindness have methods and techniques to handle stress and those stressful life events. The researcher is not distinguishing at this moment whether the coping mechanisms learned are adaptive or maladaptive in nature, but rather that the individual has developed some sort of mechanism to cope. However, the data presented in this study does not support a distinction between acute onset or the progressive loss of vision.

Differences in Spirituality and Coping by Relationship Status. Also stated in the previous research was suggestions that the presence of family supports aided the individual in diminishing the feelings of isolation, depression, and improved their coping (Moschos, 2014; Stevelink & Fear, 2016). Again, the data in this study indicated that the relationship status of the individual with the visual impairment has no effect on the type of coping that they engage in. There was also no difference among the status of the participant's relationship to their level of spirituality. It should be noted that previous research has looked at the influence or impact having an intimate relationship with another person has on aspects or pieces of an individual's life. This includes home, work, church, and school. Relationships influencehow one uses problem-solving skills to cope with stress or life-changing events (Smart, 2009). Again, the data from this population of women demonstrated that relationship status does not impact how one copes or their precieved level of spirituality.

Differences in Spirituality and Coping by Employment. Another factor that is assumed to influence coping responses in individuals who are visually impaired is their employment status (Moschos, 2014; Stevelink et al., 2015). Whether the individual is employed

or receiving training or an education, the fact that they are engaging in what is deemed normal behavior by society, lends to the idea that they are practicing productive and constructive coping behaviors (Smart, 2009; Stevelink et al., 2015). The results of this study counter that assumption. The data showed no difference among the categories of employment. An interpretation of this might be that employment and or education and training have different fascets as well. Just because an individual is employed or engaged in educational programs does not mean that they have a sense of independence, interpersonal relationships, do not have feelings of isolation or depression, or have those constructive problem-solving skills. The opportunities to work-from-home, online degree programs, and home-study courses are isolating in nature. Furthermore, the concept circles around to the assumption by society that if an individual is engaged in what is deemed normal behavior by having a job or going to school, engaging in spiritual beliefs and practices lends to normalcy as well.

Relationship between Approach Coping and Avoidant Coping. Another notable result of this study was the weak, rather small negative correlation between Approach and Avoidant Coping responses. White (2003) conducted a study looking at "Social Problem-Solving, Self-Efficacy, Community Integration, and Employment in Blind Adults". White (2003) found that positive problem orientation and negative problem orientation had a positive correlation ($r = 0.33$). He noted that these two attributes are "not opposites of each other, they are typically viewed as being inversely related problem-solving skill types. (White, 2003, p 52). The researcher in this current study found results that contradict those results posited by White. The researcher in this study had a target population that differed in certain aspects. First, the current study examined women only, while White (2003) looked at both men and women (adults) with a visual impairment. Second, the construct of coping and problem solving was measured by two

different instruments. Again, the researcher cautions about making inferences or generalizing to all individuals who are visually impaired. However, it is an interesting concept that should warrant further study.

Implications for Rehabilitation Educators, Practitioners, and Allied Professionals

The research presented in this study provides some insight to coping mechanisms used by women who have a visual impairment or who are blind. The encouragement of continued use of the individual's spirituality to continue the adaptive coping behaviors and strategies is an important component of the rehabilitation process. This support and awareness of the client's beliefs and practices adheres to multicultural counseling competencies. By gaining an understanding of factors that contribute to productive and constructive problem-solving, an individual with a visual impairment or blindness may have an easier time setting and maintaining goals, seek out opportunities for growth and development, and regain independence and identity that they thought was lost. For individuals who do not use spirituality and still have adaptive coping responses and behaviors, discovering what those mechanisms are and providing support and continued encouragement of those techniques is important. Another facet to the current research is for the individuals who do not use spirituality and have the more maladaptive coping responses and behaviors. These individuals, with the help of the rehabilitation and or the mental health professional, will need to explore other avenues to improve their problem-solving strategies and skills.

Educators. Spirituality as a mechanism to improve coping is shown as a functional tool which can be presented in a structured format for curriculum and instruction for rehabilitation counselors in training. Spirituality and religion are presented in most multicultural counseling courses. However, most of the emphasis is placed on counseling competencies and respect for

the individual's background, values, and traditions. The results of this study demonstrate that there is a very functional mechanism to improve coping in this specific population. Instructors could implement activities within and outside of the classroom to engage the students in learning about the varieties of spiritual practices. Teaching counseling techniques that encourage a client to continue their practices of faith and beliefs could be implemented. Integration of other instruments to evaluate a client's spiritual health and well-being to support a client's progress towards goals.

Practitioners. Understanding attributes of an individual's character that promote and encourage the positive and constructive problem-solving skills is beneficial when seeking employment. Vocational rehabilitation counselors for Blind Services have one of the more difficult roles in the state agencies in which they serve. As stated previously, there are 23.7 million Americans who have a visual impairment(American Foundation for the Blind, 2017). According to the National Industries for the Blind (NIB), the National Federation of the Blind (NFB), and the American Foundation for the Blind (AFB), individuals who are legally blind or have low vision are the largest untapped labor market in the United States (American Foundation for the Blind, 2015; National Federation of the Blind, 2017; National Industries for the Blind, 2017). The unemployment rate for working age adults (ages 16 to 65) with visual impairments has stood at 70% for decades (Darensbourg, 2013; Fireison & Moore, 1998; Girma, 2014; National Industries for the Blind, 2017). This number has not altered even after implementation of the AbilityOne program through NIB and the Javitz-Wagner-O'Day Act, which mandates that the government purchase products and services that are manufactured by individuals who are visually impaired or blind (AbilityOne, 2018; Darensbourg, 2013; Girma, 2014; National Industries for the blind, 2017). Continuing the support and affirmation of an individual's functional mechanism for more

adaptive coping can only improve their vocational outcomes. Vocational outcomes are not just limited to work or employment, as defined by some, but rather the inclusion of independent living skills, being more active in society, and establishing or retaining their self (Robert & Adele, 1999; Ruben & Roessler, 2008; Smart, 2009).

Allied Professionals. There are more than just vocational rehabilitation counselors for Blind Services that work or interact with the population who are visually impaired or blind. Whether it be a mental health professional, physicians, or others in the health professions, understanding how an individual uses their spirituality to cope with life stressors and stressful life events, can only enhance and improve the care and management of their health and quality of life. There are many community organizations and non-profit agencies that also provide support to individuals with not only visual impairments, but other disabilities as well. Incorporating all aspects of an individual's life into their care, could address several issues that may be preventing their move towards efficient problem-solving and adaptive coping and adjustment to the disability.

Limitations

There were several limitations identified by the researcher for this study. The researcher wishes to bring attention to some limitations with the instruments used in this study. The brief Cope was adapted from a larger instrument (Carver, 1997). The initial development of the Brief Cope used exploratory factor analysis to construct the subscales. Using prior research where the Brief Cope was used, A PCA was conducted using just a 2-factor solution. As previously noted in the results, 2 Approach Coping items did not correlate with the instrument. Moreover, feedback from participants included that the items were repetitive, and several items were double-barreled, making responding a challenge. A doubled-barrelled item is one that touches on more than one issue, but only allows for one answer. However, with the majority of items

functioning within the factor structure as hypothesized, all items were maintained for the two scales as they were designed by the original researchers with the possibility that these scales may function slightly differently for adult females with visual impairments. The analysis of the Spirituality Assessment Scale resulted in a factor structure that differed from the original development. The SAS functioned well as a whole, but the majority of the items loaded significantly on the first factor. The items did not load into the four scale structure as hypothesized for the adult women with visual impairments. Caution should also be taken with the small sample of 158 respondents with complete data. Due to the small sample, no recommendations should be made from these results in regard to reordering item groupings for different subscales. However, further analyses should be conducted to determine if these scales function as hypothesized with both the original population for which it was developed in addition to subgroups within the population such as the one used in this study. Because of this limitation, it is recommended that total scale score results be considered the primary findings of this study with subscale interpretations being made with caution.

the researcher used a combination of convenience and snowball sampling to reach the sample population. This allowed the survey instruments to reach outside of the researcher's geographical location, but the surveys were internet-based and ensuring that each item of the two instruments were answered completely was left to chance. Another limitation to this study was the participants not marking necessary responses (e.g. gender, type of onset). The internet-based survey allowed the participants to remain anonymous and as such the researcher could not prompt or remind the participant to mark all items. Another limitation to the study was the instrument's wording. The Brief Cope was repetitive and had double-barreled language. On the Spirituality Assessment Scale, several items refer to a monotheistic higher power. The

participants who have a different perspective (e.g. dual theistic, polytheistic, etc.) reported to the researcher the dilemma on how to respond accurately. The researcher was fortunate to obtain a fairly robust sample of women with visual impairments, however it should be noted that the sample of around 158 is small for the requirements of PCA. Additionally, the higher than expected level of education might also result in outcomes that might not represent the findings that might be obtained for the general adult population of women with visual impairment.

Future Research

The researcher makes several recommendations for future research with this population of women who have a visual impairment. First, a look into the differences between education level. This study was divided among women who either had advanced degrees or had a high school education or less. There was also present a distinction between how the women identified their visual disability. Furthermore, research investigating the differences in coping responses between men and women with visual disabilities could be informative to rehabilitation and mental health professionals. Several studies have looked at spirituality as a predictor of coping and adjustment to visual impairment or blindness and although previous findings were significant, more research is warranted to cultivate an understanding of the different strategies and techniques used by individuals who are visually impaired or blind. The sample for this study was comprised of women from the United States and several foreign countries. The research included all participants, no matter their geographical location. Future research could examine differences based on geographical location between spirituality and coping with visual impairments or with disabilities in general. Because of the different factor structure with the Spirituality Assessment Scale with this study and this population, the researcher recommends more research with this particular scale. In summary, although correlation is not causation, there

is a statistically significant relationship between spirituality and coping responses in women with a visual impairment. Future research could include an examination of men with a visual impairment or blindness, also looking at his self-reported level of spirituality and the coping responses and techniques he uses.

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Appendix A

Letter of Intent

{Specific Agency Name} July 1, 2017

123 ABC Street

Fayetteville, AR 72703

Sandra M. Bullins, M.S. CRC

202 West Miller Street

Fayetteville, AR 72703

(662) 386-6499

Dear {Contact Person},

My name is Sandra Bullins and I am a Doctoral candidate at the University of Arkansas-Fayetteville. I am conducting a research study to investigate the relationship between spirituality and coping responses in women who have acquired a visual impairment.

I am asking permission to recruit at your agency for participants for the study.

All guidelines and standards for conducting research set forth by the Institutional Review Board (IRB), will be adhered to, along with the ethical standards set forth by the American Counseling Association (ACA) and the ethical standards of the Counsel on Rehabilitation Counselor Certification (CRCC). All data collected will remain confidential and secured. No personal identifiable information will be collected and participants will remain anonymous. If granted permission, I will provide a secured link to the survey. I thank you for your time and consideration in this.

Sincerely,

Sandra M. Bullins, M.S., CRC

Doctoral Candidate

University of Arkansas-Fayetteville

Department of Rehabilitation, Human Resources, and Communication Disorders

Appendix B

The Brief Cope

Directions—

When thinking about the onset of your visual impairment, please rate the following statements as they relate to you. There is no right or wrong answer. Please be honest.

1. I've been concentrating my efforts on doing something about the situation I'm in.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

2. I've been taking action on making the situation better.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

3. I've been trying to come up with a strategy of what to do.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some

__I've been doing this a lot.

4. I've been thinking hard about what steps to take.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

5. I've been trying to see it in a different light, to make it seem more positive.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

6. I've been looking for something good in what is happening.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

7. I've been accepting the reality of the fact that it has happened.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I’ve been doing this a lot.

8. I’ve been learning to live with it.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

9. I’ve been making jokes about it.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

10. I’ve been making jokes about the situation.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

11. I’ve been trying to find comfort in my religion or spiritual beliefs.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

12. I've been praying or meditating.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

13. I've been getting emotional support from others.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

14. I've been getting comfort and understanding from someone.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

15. I've been trying to get help or advice from other people on what to do.

__I haven't been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

16. I’ve been getting help or advice on what to do.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

17. I’ve been turning to work or other activities to try to get my mind off things.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

18. I’ve been doing things to try to think about it less, such as going to movies, watching T.V., reading, daydreaming, sleeping, or shopping.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

19. I've been saying to myself "this isn't real."

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

20. I've been refusing to believe this has happened.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

21. I've been expressing my negative feelings.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

22. I've been saying things to let my unpleasant feelings escape.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

23. I've been using alcohol or other drugs to make myself feel better.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

24. I've been using alcohol or other drugs to help myself get through it.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

25. I've been giving up trying to deal with it.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I've been doing this a lot.

26. I've been giving up the attempt to cope.

__I haven't been doing this at all.

__I've been doing this a little.

__I've been doing this some.

__I’ve been doing this a lot.

27. I’ve been criticizing myself.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

28. I’ve been blaming myself for things that happened.

__I haven’t been doing this at all.

__I’ve been doing this a little.

__I’ve been doing this some.

__I’ve been doing this a lot.

Appendix C

SPIRITUALITY ASSESSMENT SCALE

DIRECTIONS: Please indicate your response by circling the appropriate letters indicating how you respond to the statement.

MARK:

"SA" if you STRONGLY AGREE

"A" if you AGREE

"AM" if you AGREE MORE than DISAGREE

"DM" if you DISAGREE MORE than AGREE

"D" if you DISAGREE

"SD" if you STRONGLY DISAGREE

There is no "right" or "wrong" answer. Please respond to what you think or how you feel now.

1.	I have a general sense of belonging.	SA A AM DM D SD
2.	I am able to forgive people who have done wrong to me.	SA A AM DM D SD
3.	I have the ability to rise above or go beyond a physical or psychological condition.	SA A AM DM D SD
4.	I am concerned about destruction of the environment.	SA A AM DM D SD

5.	I have experienced moments of peace in a devastating event.	SA A AM DM D SD
6.	I feel a kinship to other people.	SA A AM DM D SD
7.	I feel a connection to all of life.	SA A AM DM D SD
8.	I rely on an inner strength in hard times.	SA A AM DM D SD
9.	I enjoy being of service to others.	SA A AM DM D SD
10.	I can go to a spiritual dimension within myself for guidance.	SA A AM DM D SD
11.	I have the ability to rise above or go beyond a body change or body loss.	SA A AM DM D SD
12.	I have a sense of harmony or inner peace.	SA A AM DM D SD
13.	I have the ability for self-healing.	SA A AM DM D SD

14.	I have an inner strength.	SA A AM DM D SD
15.	The boundaries of my universe extend beyond usual ideas of what space and time are thought to be.	SA A AM DM D SD
16.	I feel good about myself.	SA A AM DM D SD
17.	I have a sense of balance in my life.	SA A AM DM D SD
18.	There is fulfillment in my life.	SA A AM DM D SD
19.	I feel a responsibility to preserve the planet.	SA A AM DM D SD
20.	The meaning I have found for my life provides a sense of peace.	SA A AM DM D SD
21.	Even when I feel discouraged, I trust that life is good.	SA A AM DM D SD
22.	My life has meaning and purpose.	SA A AM DM D SD

23.	My innerness or an inner resource helps me deal with uncertainty in life.	SA A AM DM D SD
24.	I have discovered my own strength in time of struggle.	SA A AM DM D SD
25.	Reconciling relationships is important to me.	SA A AM DM D SD
26.	I feel a part of the community in which I live.	SA A AM DM D SD
27.	My inner strength is related to a belief in a Higher Power or Supreme Being.	SA A AM DM D SD
28.	I have goals and aims for my life.	SA A AM DM D SD

Appendix D

Permission

Sandra Bullins <smbullin@email.uark.edu>

Spirituality Assessment Scale (SAS)

From: Howden, Judy <Judy_Howden@baylor.edu> Fri, Sep 16, 2016 at 10:38AM

To: "smbullin@uark.edu" <smbullin@uark.edu>

Thank you for your interest in the "Spirituality Assessment Scale (SAS)". I have attached materials related to the SAS, including the scale itself. You have my permission to use the scale in your dissertation.

Best Wishes,

Judy Howden

3 attachments

SPIRITUALITY ASSESSMENT SCALE.doc 29K

SAS-BACKGROUND.doc 29K

SAS SCORING SHEET AND INSTRUCTIONS.doc 26K

Appendix E

Consent to Change Wording

Sandra Bullins <smbullin@email.uark.edu>

Spirituality Assessment Scale: Howden contact/question

Howden, Judy <Judy_Howden@baylor.edu> Fri, May 12, 2017 at 10:59 AM

To: Sandra Bullins <smbullin@email.uark.edu>

You have my permission to change some of the items on the SAS from positive to negative worded responses. I did debate this situation in the development of the instrument and with the controversy of reading comprehension issues (especially in some study populations) I went with the safer option of consistently worded items. Best Wishes.....

Appendix F

Negatively Worded Items

Subscale 1: Purpose and meaning in life

Item: My life has no meaning.

Item: I feel that my life is aimless.

Subscale 2: Inner Resources

Item: I feel empty inside.

Item: I do not know how to deal with uncertainty in life.

Subscale 3: Unifying inner connectedness

Item: I feel disconnected to everything in life.

Item: I cannot forgive when others have done wrong to me.

Subscale 4: Transcendence

Item: I have experienced moments of great distress in a devastating event.

Item: When I feel discouraged, I feel life is no good.

Appendix G

Demographic Information

Gender Identity: __Woman__Man__Transgender Female__Transgender male__Prefer not to answer

Age: _18-29 _30-39 _40-49 _50-59 _60-69 _70+ _Prefer not to answer

Relationship Status: _Single _Divorced _Married _Widow _In a Relationship _Prefer not to answer

Education: _Below HS _GED/HS Diploma _Some College _Associate _Bachelor _Masters _Doctoral degree _Prefer not to answer

Visual Acuity Classification: _Low Vision _Visually Impaired _Legally Blind _Completely blind

Age of onset: __

Employment: _Full-time _Part-time _In school _Unemployed, looking for work _Unemployed, not looking for work _Prefer not to answer

Race/Ethnicity: _White _Black _Native American or Alaska Native _Asian _Native Hawaiian or Pacific Islander _Hispanic _Middle Eastern _2 or more _Not listed

State of Residence: {Edit box}

Appendix H

Informed Consent Form

Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits. Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

University of Arkansas

Informed Consent Form for Participation in Research Study

Title of Study: Investigation of the Relationship between spirituality and Coping Responses in Women with an onset of a Visual Impairment

Study Site: University of Arkansas-Fayetteville, Department of Rehabilitation, Human Resources, and Communication Disorders via Web-based Survey

Researcher(s): Sandra M. Bullins, University of Arkansas and Dr. Brent T. Williams, University of Arkansas.

Purpose

The purpose of this study is to investigate the relationship between personal spirituality and coping responses in women with an adult onset of a visual impairment.

Procedures

If you participate in this study you will be asked to take two surveys, the Brief Cope and the Spirituality Assessment Scale. The Brief Cope will take approximately 20 minutes to complete

and asks questions about how you cope with stress in your life. The Spirituality Assessment Scale will take approximately 15 minutes to complete and has you rate how much you agree or disagree with the statements provided.

Risks and Discomforts

Potential risks or discomforts by participating in this study might include minimal emotional or psychological distress. We do not see any other risks or discomforts by participating in this study.

Benefits

We do not see any tangible benefits for you by participating in this study. However, by participating in this study, the information gathered from this study might include development for future support groups and/or new techniques or procedures in rehabilitation plans, counseling, or treatment plans.

Confidentiality

All participant information gathered will remain anonymous. All demographic information and results/scores from the online assessments will be kept on a password protected computer located in the researcher's office. The faculty advisor and principle researcher will be the only people who will have the password to access the computer. All data will be kept and can be requested by the Institutional Review Board (IRB) and the Office for Human Research Protections (OHRP) for audit.

Questions

If you have any questions about this research project, please feel free to contact Sandra Bullins at (662) 386-6499 or email at smbullin@uark.edu or you may contact Dr. Brent T. Williams at (479) 575-8696 or email at btwilli@uark.edu.

For questions regarding your rights as a research participant, or to discuss problems, express concerns or complaints, request information, or offer input, please feel free to contact the University of Arkansas Research Compliance Officer, Ro Windwalker, by phone at (479)-575-2208 or by e-mail at irb@uark.edu.

Voluntary Participation

If you agree to participate in this research study, please indicate this agreement below. You may opt to print this page for your records.

Appendix I

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

September 18, 2017

MEMORANDUM

TO:	Sandra Bullins Brent T. Williams
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol#:	17-09-075
Protocol Title:	*An Investigation of the Relationship between Spirituality and Coping Responses in Women who have had an Onset of a Visual Impairment*
Review Type:	☒ EXEMPT
Approval Date:	09/18/2017

Your protocol has been approved by the IRB. We will no longer be requiring continuing reviews for exempt protocols.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

109 MLKG • 1 University of Arkansas • Fayetteville, AR 72701-1201 • (479) 575-2208 • Fax (479) 575-6527 • Email irb@uark.edu