RELATIONSHIPS AMONG SELF-TRANSCENDENCE, ILLNESS DISTRESS, AND
HEALTH-PROMOTING BEHAVIORS IN AFRICAN AMERICAN WOMEN
DIAGNOSED WITH BREAST CANCER

by

Jeanine Thomas

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SIGNED: Jeanine Thomas
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DEDICATION

This research is dedicated to all the amazing and resilient women who have been diagnosed with breast cancer.
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ABSTRACT

The purpose of this descriptive correlational study was to describe relationships among three spiritually related variables (psychosocial self-transcendence, spiritual self-transcendence, and religious self-transcendence), and two health-related variables: illness distress (as an indicator of emotional well-being), and health-promoting behaviors in African American women diagnosed with breast cancer. A secondary purpose was to describe spiritually-related perspectives and behaviors reported by these women in reference to minimizing their illness distress and supporting healthy behaviors during their breast cancer trajectory. A convenience sample of 537 women with breast cancer completed an electronic survey. In Qualtrics, an on-line survey tool, six questionnaires: Demographic and Health-Related Questionnaire, Reed’s (1991) Self-Transcendence Scale, Reed’s (1986) Spiritual Perspective Scale, Spiritual-Religious Practices Scale, Distress Scale, and Walker’s (1987) Health Promoting Lifestyle Profile II, were formatted to measure each of the variables stated in the research questions. In addition, a subgroup of 10 women were interviewed by phone to obtain a more in-depth understanding of the relevance of spiritually related factors in African American women coping with breast cancer. Results of the study revealed several significant positive relationships between the independent and dependent variables. All three self-transcendence variables and many of the demographic and health related variables were found to be significant in explaining illness distress and the level of engagement in health promoting behaviors. In addition, the results of this study will contribute to better understanding of how spiritually related variables and selected demographics may be relevant in helping African American breast cancer survivors reduce illness distress and modify health behaviors. Results from telephone interviews provide relevant
data related to self-transcendence, illness distress, and level of engagement in health promoting behaviors.
CHAPTER I: STATEMENT OF THE PROBLEM

Throughout the world, women are losing the battle against breast cancer daily. African American women have the highest breast cancer mortality rate. The chance of African American women dying of breast cancer is 44% higher than Caucasian women (Howlander et al., 2014). In addition, African American women have the highest overweight and obesity rates than any other ethnic group, and obesity along with lifestyle behaviors are primary factors in developing cancer, including breast cancer (De Pergola & Silvestris, 2013). Despite these risks, African American women may also have significant resources for coping with their diagnosed breast cancer. In the literature, it is well documented that African American rely on their spirituality and religion to make decision about life and their health. Although there are a significant amount of women dying from breast cancer, over 2.8 million are living with breast cancer and long-term side effects related to diagnosis and treatment (Surveillance, Epidemiology, & End Results Program [SEER], 2011). It imperative that the nursing and health professions identify, develop, and implement strategies that will assist breast cancer survivor in developing and/or maintaining an overall well-being.

Purpose of the Study

The literature provided evidence of the effectiveness of faith-based or church-based interventions to promote healthy lifestyle changes in African American women and in breast cancer survivors. Spirituality, in particular, has played an important role in the life of African Americans as well as other ethnic groups. According to the literature, African Americans were known for using their spirituality, religion, and spiritual resources to cope with life changing events including the diagnosis of cancer. While research have shown a significant role of
nutrition and physical activity in reducing risk of mortality from cancer, less is known about the role that spirituality may play in the lives of African American women who have breast cancer. The purpose of this study was to understand relationships among three spiritually related transcendence-related variables (psychosocial self-transcendence, spiritual self-transcendence, and religious self-transcendence), and illness distress (as an indicator of emotional well-being), and health-promoting behaviors in African American women diagnosed with breast cancer. A secondary purpose was to explore and identify spiritually-related perspectives and behaviors that these women report using to minimize their illness distress and support healthy behaviors during their breast cancer trajectory. The goal of conducting interviews with the participants was to obtain their views on spirituality, spiritually related perspectives and practices related to illness distress and healthy lifestyle behaviors.

The study was conducted in a region of Louisiana (Acadiana Region IV) where African American women have the highest breast cancer incidence and mortality rates in Louisiana. The long-term goal was to use findings from this correlational study to develop a situation-specific theory-based intervention. This intervention was designed to assist African American breast cancer survivors residing the Acadiana Region IV in Louisiana to achieve healthier lifestyles while also diminishing illness distress and increasing their overall well-being.

**Background and Significance**

In 2014, the number of new breast cancer cases was estimated to be 232,670. The number of cancer deaths estimated for 2014 was 40,000 (SEER, 2014). Breast cancer incidence is highest among white women while breast cancer deaths are highest among African American women. Although breast cancer cases are trending downward, there is still much work to
perform in educating women about modifiable risk factors. An estimated 13 million cancer survivors are living in the United States (SEER, 2014). In 2013, 2.8 million women were living with breast cancer (SEER, 2014).

Five medical organizations, the Institute of Medicine (IOM), American College of Surgeon’s Commission on Cancer (CoC), American Society of Clinical Oncology (ASCO), and National Comprehensive Cancer Network (NCCN) and the Oncology Nursing Society have taken a stance on the importance of developing and implementing strategies to help cancer survivors improve survivorship. This stance includes, but is not limited to, educating survivors on preventive measures such as behavioral changes, evaluating for distress, and teaching survivors how to manage late and long-term side effects of cancer treatments (ASCO, 2014; CoC, 2014; IOM, 2014; NCCN, 2014; Williams et al., 2014). The goal of these recommendations was to ultimately improve survivors’ quality of life and overall well-being. The significance of the proposed study was its potential to deepen understanding of spiritual views and practices among African American women who have breast cancer and to understand the potential relationships of those views and practices to emotional well-being specifically illness distress and health-promoting behaviors.

The study findings provided a basis for designing a culturally competent intervention in the future to engage African American women to use spirituality to support emotional well-being by minimizing illness distress and supporting health-promoting behaviors. Further, by learning new healthier behaviors, these women may affect change in their children, spouses, significant others, and extended family members. In an area that is heavily populated with obesity and breast cancer mortality, this study has the potential to affect changes in health disparities,
contribute to nursing science and positively impact a community in need of nursing knowledge. Additionally, findings from this study also may help facilitate the development and implementation of nursing theory-based interventions, and promote an increased in quality of life for breast cancer survivors.

**Philosophical Perspective**

The author’s worldview was derived from a synthesis of influences including intermodernism (previously called neomodernism) (Reed, 2006; Reed & Shearer, 2009; Reed, 2011), Pepper’s (1942) contextual-developmental view (Hayes, Hayes, & Reese, 1988); and Newman’s (1991) Unitary Transformative and Parse’s Simultaneity (1987) paradigms (Reed & Shearer, 2009; Reed, 1996); and the author’s life experiences, personal values, and spiritual beliefs. Taken collectively, individuals are viewed as uniquely diversified beings that influence and are influenced by dynamic environmental, social, and historical changes.

Intermodernism is a philosophy of nursing science developed by Reed (2006) to synthesize key elements of modern and postmodern views to encourage: 1) a diversity in methods and sources of knowledge in scientific, with emphasis on practice-based and real life contexts; 2) production of novel knowledge and investigator developed theory; 3) respect for the uniqueness of individuals; and, 4) a critical stance toward oppressive views or actions (Reed & Shearer, 2009; Reed, 2006). As an African American woman who has endured numerous acts of racism, social injustices, and job discriminations, intermodernism is a view that resonates with this author because it respects uniqueness of all humanity and advocates for justice, promotes diversified patterns of knowledge development, and encourages awareness for personal
empowerment. This author’s worldview is grounded in viewing an individual holistically when examining the physical, cognitive, environmental, and spiritual dimensions.

Pepper’s (1942) contextual-developmental worldview posits that individuals are an integral part of their environment and they develop and adapt to phenomena based on their interaction with the situation or context. Events are composed of changing patterns. Change is dynamic, irreversible and is influenced by historical events (Hayes, Hayes, & Reese, 1988; Reed, 2006). Basic assumptions of contextual-developmental worldviews are: 1) historical events affect an individual’s action; 2) change is ongoing, dynamic and irreversible; 3) an individual and the environment are interactive units; and, 4) there is not one ideal goal but rather goals are redefined as the context changes (Hayes, Hayes, & Reese, 1988). The proposed study draws on this worldview by incorporating intra-and inter-personal elements and focusing on equipping individuals with necessary resources to achieve their healthy lifestyle goals.

Newman’s (1991) Unitary Transformative and Parse’s Simultaneity (1987) paradigms are two additional nursing philosophic paradigms that inform the underlying philosophic perspective of the proposed study. Newman’s (1991) Unitary Transformative paradigm purports that the individual and the environment is a process, not a relationship, patterns are essential, change is irreversible and dynamic, and reality and time are pandimensional. Parse’s (1987) Simultaneity paradigm purports that the whole is greater than the sum of parts, no predefined health goals exist, health is a process of becoming, and nurse and patient are co-participants (Reed & Shearer, 2009; Smith, 2008).

The author’s life experiences, personal values, and spiritual beliefs played a major role in developing this philosophical perspective. Working as an oncology and hospice nurse resulted in
a renewed sense and/or appreciation for life, and to respect and care for individuals regardless of age, race, gender, religion, sexual orientation, or social status. Personal values such as every individual is unique because my God created him/her, treat all individuals respectfully, and assist individuals in need allowed continue discovery, development, and refinement of this perspective.

A spiritual belief in a higher being allows the author to be accountable for actions and treatment of human beings, to draw on an internal source for guidance and encouragement, and to provide rules that governs life.

The author’s metaparadigmatic statement depicts a collective view of the four metaparadigmatic concepts to emphasize the role of nursing in human health: Nursing is an interactive and dynamic process which utilizes an individual’s or group’s environment to assist in achieving one’s perceived state of well-being. With this statement, the nurse and patient are co-participants working together to identify patterns of behavior to improve one’s health holistically including physical, cognitive, spiritual, and social areas.

**Self-Transcendence as the Over-Arching Concept of Spirituality**

Spirituality is a complex concept and includes psychosocial, spiritual, and religious dimensions. Assumptions about spirituality are relevant to this study because it is a key variable in the study. The assumptions reflect the connection of spirituality to self-transcendence. The root word of spirituality is spirit which comes from the Latin word, spiritus, meaning “breath, courage, vigor, the soul, life” (Buck, 2006, p. 289); some interpret this to mean that spirituality is a quality of the spirit that gives or breathes life into an individual (Goldberg, 1998). Several aspects of spirituality have been evaluated including its relationship to religion, its use in health and nursing, and its ability to promote transcendence. Reed (1992) defines spirituality as “the
propensity to make meaning through sense of relatedness to dimensions that transcend the self in such a way that empowers and does not devalue the individual (p. 350). Buck (2006) defines spirituality as the “most human of experiences that seeks to transcend self and find meaning and purpose through connection with others, nature, and/or a Supreme Being, which may or may not involve religious structures and traditions” (p. 290). The author’s personal definition of spirituality concurs with Fowler and Peterson (1997) evocative definition of spirituality:

“Spirituality is the way in which a person understands and lives life in view of her or his ultimate meaning, beliefs, and values. It is the unifying and integrative of the person’s life and, when lived intentionally, is experienced as a process of growth and maturity. It integrates, unifies, and vivifies the whole of a person’s narrative or story, embeds his or her core identity, establishes the fundamental basis for the individual’s relationship with others and with society, includes a sense of the transcendent, and is interpretative lens through which the person sees the world. It is the basis for community for it is in spirituality that we experience our co-participation in the shared human condition. It may or may not be expressed or experienced in religious categories” (Fowler & Peterson, 1997, p. 47).

Thus, there is the theme of transcendence across descriptions of spirituality. The concept of self-transcendence will be used as the over-arching concept of the study, to encompass the complexity of spirituality, which includes psychosocial, spiritual, and religious perspectives and behaviors. In communicating with the public for recruitment purposes, the more familiar word, spirituality, may be used instead of the theoretical term, self-transcendence.

The theoretical framework for this study stipulates the underlying assumption that an individual draws upon her spiritual resources to transcend or move beyond a situation to facilitate well-being and empower the person’s engagement in healthy lifestyle. The theoretical framework was derived from two nursing theories, Reed’s (1991) Theory of Self-Transcendence (ST) and Shearer’s (2004) Theory of Health Empowerment (Figure 1). The selected theories
support the theoretical perspective of this study regarding the empowering role of spirituality to promote emotional well-being and health-promoting behaviors among African American women with breast cancer.

Reed’s (1991) Theory of Self-Transcendence provides theoretical knowledge in understanding an individual’s capacity to move beyond life’s obstacles and tap into an inner and outer resources to adapt to change. The Theory of Self-Transcendence has two major assumptions, individuals are integral with their environments (Reed, p. 106) and self-transcendence is a vital component of development that affects well-being. Self-transcendence allows humans to expand boundaries in various ways to utilize resources from within (intrapersonally), from without (interpersonally), from beyond the conceivable world (transpersonal); and across temporal boundaries (Reed, 2009). Self-transcendence can facilitate well-being and is particularly relevant for individuals facing vulnerability in some manner. Reed’s (1991, 2014) Self-Transcendence Theory identifies inner human resources such as spirituality to be a manifestation of self-transcendence. Shearer’s (2004, 2009) Theory of Health Empowerment posits that individuals with the use of resources and personal goals can be empowered to not only become proactive in their health care but also to become aware of factors influencing their engagement in health behaviors and achieve well-being. Identification of personal and socio-contextual resources empowers an individual to achieve a perceived state of well-being. Self-transcendence has the potential to be a mediator between personal characteristics and well-being.
Theoretical Framework

The theoretical framework proposed that self-transcendence (measured by three self-transcendence variables: psychosocial, spiritual, and religious perspectives and behaviors) was related negatively to illness distress and positively to level of engagement in healthy lifestyle behaviors. Thus, there were five main study variables to be measured in this study (see italicized words) in addition to measuring demographic and health-related factors that were related to the study variables. An individual employs self-transcendence to use multiple resources, including intrapersonal, interpersonal, transpersonal, and temporal, to adapt and cope with life’s events to progress to a state of well-being. Each of the variables in the study is described below. The variables and their proposed relationships are displayed in Figure 1. In Figure 1, the intention is not to infer causality but to show the proposed direction of relationships based upon the existing literature. The current study, of a descriptive correlational design, is a first step in studying the nature of these proposed relationships. The proposed relationships for the most part are theoretical, not empirical, which is why this initial study is needed. Figure 1 represents possible correlations or relationships that may be negative, positive, or unknown.
FIGURE 1. Relationships of Three Self-Transcendence Variables and Demographic and Health-Related Characteristics to Illness Distress and Healthy Lifestyle Behaviors.

<table>
<thead>
<tr>
<th>Self-Transcendence Variables</th>
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<tbody>
<tr>
<td>Psychosocial Self-Transcendence</td>
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<td>Spiritual Self-Transcendence</td>
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<td>Religious Self-Transcendence</td>
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<th>Demographic and Health-related characteristics to be explored</th>
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<th>Illness Distress</th>
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<th>Engagement in Health-Promoting Behaviors</th>
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<td>(Healthy Lifestyle Behaviors)</td>
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**Psychosocial Self-Transcendence (PST)**

Reed (1996) defined psychosocial self-transcendence as “an expansion of personal boundaries beyond the immediate or constricted views of oneself and the world” (Reed, p. 3). An individual may experience self-transcendence when faced with health experiences that demand attention related to mortality such as experiences of aging, death, illness, or loss. Self-transcendence is a characteristic of developmental maturity whereby there is an expansion of self-boundaries and an orientation toward broadened life perspectives and purposes (Reed, 1991). Individuals may expand personal boundaries in various ways, including intrapersonally,
interpersonally, and transpersonally to include views that extend beyond the immediately perceivable physical world.

**Spiritual Self-Transcendence (SST)**

Spiritual self-transcendence refers to “the extent to which individuals hold certain spiritual perspectives or beliefs and engage in spiritual related behaviors” (Reed, 1987). Spiritual perspectives are fundamental perspectives that change one’s attitude, behaviors, and assist in conceptualizing an individual’s life worldview. Spiritual perspective is one of the main concepts that was be evaluated to determine if and how it impacts well-being and health-promoting behaviors.

**Religious Self-Transcendence (RST)**

Religious self-transcendence refers to the use of traditional spiritual and/or religious practices to connect to and depend on God to find meaning, to regulate one’s life, to develop interpersonal relationships, and to learn how to be an integral part of one’s environment. This form of self-transcendence emphasizes traditional spiritual practices and views associated with organized Christian religion, particularly that originating in the southern United States. In 2011, African Americans (53%) were identified as the most religious group in the United States followed by Hispanics (45%) and then Whites (39%) (Gallop Poll, 2011; Newport, 2012). Eighty-seven percent of African Americans were self-reported as belonging to a religious group and they had a higher level of religious affiliation, attendance of religious services, frequency of prayer usage, and reported that religion was important in their lives. Older women were identified as more religious and attended more religious services than men or younger women.

**Illness Distress (ID)**

This variable represents a relevant measure of well-being in terms of decreased well-being or distress. In the literature, several definitions exist related to well-being and there are multiple types of well-being and distress. Keifer (2008) applied a Rogerian and holistic view in stating that well-being is defined according to an individual’s physical, mental, social, and environmental status. Well-being may vary according to the interactivity and importance of physical, mental, social, and environmental status (Kiefer, 2008). Well-being in this study focuses on a particular subjective aspect, that of ID. Distress is identified as a psychosocial disorder that impacts a cancer survivor throughout the entire cancer trajectory, from diagnosis to the end of treatment. Research has shown that distress plays such a significant role in the coping and survivorship of cancer and distress is now known as the sixth vital sign (Howell & Olsen, 2011). Distress is further defined as “a multifactorial unpleasant emotional experience of a psychological (cognitive, behavioral, emotional), social, and/or spiritual nature that may interfere with a patient’s ability to cope effectively with cancer, its physical symptoms, and its treatment” (National Comprehensive Cancer Network [NCCN], 2014). Distress occurs across various dimensions of the woman’s life. This study focuses on five dimensions in particular: Practical Problems, Family Problems, Emotional Problems, Spiritual/Religious Concerns, and Physical Problems. ID is a type of distress that occurs from an illness or disease that negatively impacts a person’s life. For the purpose of this study, ID will be used to indicate illness distress.
**Health-Promoting Behaviors (HPB)**

“Health-promoting behaviors are multidimensional patterns of self-initiated actions and perceptions that serve to maintain or enhance the level of wellness, self-actualization and fulfillment of the individual” (Walker, Sechrist, & Pender, 1987, p. 76). “HPB includes actions related to health responsibility, physical activity, nurturing spiritual growth, interpersonal relationship, and stress management” (Walker, Sechrist, & Pender, 1996, p. 4). Pender defines health-promoting behaviors as the desired behavioral end point or outcome of health decision making and preparation for action” (Pender, 1996, p. 4). A proposition of the Health Belief Model is that a person’s social behavior and inherited and acquired characteristics influence beliefs and effect enactment of health-promoting behaviors. This is consistent with Shearer’s (2009) Theory of Health Empowerment regarding healthy lifestyle behaviors.

**Relationships Between Concepts**

Relationships are proposed between the key variables of self-transcendence (psychosocial, spiritual, and religious) and each of the variables of illness distress, and the level of engagement in healthy lifestyle behaviors. It is proposed that the context of the vulnerability of having breast cancer may motivate spiritual perspectives and practices, which relate inversely to illness distress and positively to engagement of health promoting behaviors. Recognizing and using one’s resources for spiritual self-transcendence may help empower a person to experience well-being and make choices that promote a healthy lifestyle.

**Research Questions**

The theoretical framework for this study, which guided the research questions, proposes overall that in the vulnerability context of being a breast cancer survivor, women’s spiritual
perspectives and practices help empower women to achieve healthy lifestyle behaviors and a
decreased level of illness distress which increases emotional well-being. The following seven
research questions were derived from the theoretical framework and focus on African American
women diagnosed with breast cancer:

1. What is the relationship between PST and each of the two variables, ID and level of 
   engagement in HPB?

2. What is the relationship between SST and each of the two variables, ID and level of 
   engagement in HPB?

3. What is the relationship between RST and each of the two variables, ID and level of 
   engagement in HPB?

4. What demographic and health-related variables significantly relate to any of the three 
   self-transcendence variables, ID, and level of engagement in HPB?

5. What combination of self-transcendence and demographic and health-related variables 
   best relate to ID?

6. What combination of self-transcendence and demographic and health-related variables 
   best relate to level of engagement in HPB?

7. In their own words, what themes of spiritually-related perspectives and practices do 
   these women identify as significant to their illness distress or well-being and to their daily 
   lifestyle behaviors?
CHAPTER II: REVIEW OF THE LITERATURE

The purpose of this chapter was to review the extant literature in which spirituality or self-transcendence were studied in reference to emotional well-being or illness distress, and to health-promoting behaviors. There was an abundance of literature supporting the relationship between spirituality or self-transcendence and emotional well-being or illness distress, so a sample of the studies will be presented. Although these concepts have been explored in previous studies that reported significant relationships, few studies existed that explored relationships between these concepts combined and exclusively in the population of African American women diagnosed with breast cancer. Furthermore, few studies existed in which self-transcendence/spirituality were studied in relation to lifestyle behaviors such as nutrition and physical activity.

A review of research related to the current study provided some basis for this research as well as identify gaps in the literature. A data based search was performed using published articles from Medline®, CINAHL® (EBSCO), Pub Med, Web of Science, and OVID to examine literature from 1990 to 2013. Key words searched included self-transcendence, spirituality, spiritual perspectives, spiritual behaviors, religion, religion practices, well-being, illness distress, breast cancer, breast neoplasm, black women, and African American women.

Eighteen articles were selected based on the inclusion criteria: self-transcendence, spirituality, African American women, illness distress, well-being, health promoting behaviors, and breast cancer, peer reviewed articles. No study was found that included a combination of the key terms. Therefore, articles were included that included one or more of the concepts. Due to the low level of evidence related to the proposed study, the literature below is grouped broadly in reference to self-transcendence and spirituality.
Self-Transcendence and Well-Being in Breast Cancer Survivors

Self-transcendence in newly diagnosed and late stage women with breast cancer was studied in three qualitative studies with results indicating that self-transcendence was an important experience among the women (Coward, 1990; Coward & Kahn, 2004; 2005). The purpose of the Coward (1990) study was to detail the lived experience of self-transcendence in women (n =5) diagnosed with Stage IV breast cancer. Five women were interviewed and asked to describe the main aspects of the lived experience of self-transcendence. Findings revealed several themes consistent with Reed’s (1992) theory of self-transcendence: a) Self-transcendence occurs as a result of much effort usually from a life altering event such as cancer; b) self-transcendence generates a new meaning in life by increase an awareness of self (intrapersonal); c) self-transcendence encourages women diagnosed with breast cancer to help other while allowing them to receive help (interpersonal); and, d) self-transcendence allowed women diagnosed with breast cancer to use prior skills and newly learned skills to reach beyond themselves (temporal and transpersonal). Strengths of the study were that the study revealed how personal resources (interpersonal, intrapersonal, temporal, and transpersonal) are imperative in assisting women cope with breast cancer and the study described the characteristics of self-transcendence from the perspective of a women diagnosed with Stage IV breast cancer. No weakness of the study was identified.

Coward and Kahn (2004) study’s purpose was to explore the experience of spiritual disequilibrium in newly diagnosed women with breast cancer. Spiritual disequilibrium was defined as “an uncomfortable sense of disconnection from oneself, others, and sometimes, a higher power” (p. E1). Ten women (n = 10; 9 Caucasian and 1 African American) were
interviewed at three time points: 1) after entering the study; 2) two to three month after entering the study; and 3) at one year). At time point 1, themes that were identified included shock and fear of dying, sense of aloneness, battling with self-identity, reach out for help and the desire to help others. At time point 2, themes included feeling of returning to former self, understanding the importance of support systems, making behavioral changes, and recognizing the fear of reoccurrence. At time point 3, themes included identifying ways to prevent reoccurrence, recognizing and defining a new self-identity, and recognized a change in priorities and relationships. Strengths of the study were understanding how spiritual disequilibrium can produce an array of “negative” feeling and how obtaining spiritual equilibrium promotes “positive” and a balance in one’s life. A limitation of the study was the inclusion of only one African American woman. Overall, the study was significant to the proposed study because it explained how spiritual disequilibrium can yield distress and limit positive changes in behavior and how a spiritual balance can produce positive changes for how women cope with breast cancer.

Coward and Kahn (2005) study described the experience of self-transcendence in women newly diagnosed with breast cancer. Fourteen women (n = 14; 13 Caucasian and 1 African American) were at three different time points: 1) before attending a support group; 2) after participating in a support group; and 3) five months later. Participants were interviewed and asked to elaborate on their breast cancer experience and what measures helped or did not help them feel better. Themes identified were at time point 1 were the need to obtain support and information, recognizing cancer as a change in health, recalling what measures help in the past during previous life altering events, and how to make meaning from the breast cancer situation.
Themes from time point 2 were obtaining comfort from others, increase self-awareness, acceptance of change, and constructing meaning from the breast cancer experience. Themes from time point 3, reaching out for support, reaching inward for acceptable of the situation, and constructing meaning at this time about the breast cancer journey. The strength of the study was that the findings added research to the body of knowledge related to how women with breast cancer create meaning about self-transcendence from their breast cancer experiences. No weakness of the study was identified.

Results from research employing quantitative methods to study breast cancer survivors indicate consistently that self-transcendence was related or contributed to positive health factors such as emotional and spiritual well-being and optimism. In a partial randomized trial pilot study to evaluate an intervention that included support groups and self-transcendence activities and perspectives related to well-being in newly diagnoses breast cancer (n = 41; 4 African American women), Coward (2003) found that self-transcendence activities were effective, at least in the short term for promoting well-being. The study intervention consisted of eight weekly group sessions lasting 90 minutes. The intervention included nine activities that focused on education, communication, relaxation training, constructive thinking, and pleasant activity planning. Participants were encouraged to share their experiences and emotions related to cancer and use the information obtained to address their concerns as well as the other participants’ concerns. The author used the following measures: the Self-Transcendence Scale (STS) measured self-transcendence; the Affect Balance Scale (ABS) and the Profile of Mood States (POMS) both measured affective well-being; Cognitive Well-being Scale (CWB) measured cognitive well-being; Karnofsky Performance Scale (KPS) measured physical well-being; Symptom Distress
Scale measured symptom distress; and the Personal Resources Questionnaire 85 - Part 2 measured social support. Results revealed that the group self-transcendence activities were effective in the intervention and control group post intervention but were not sustained in the intervention group one-year post intervention. Also, participants benefited from continuous support groups (Coward, 2003). Strengths of the study were the inclusion of low-income participants and included support groups. No weaknesses were identified.

Thomas, Burton, Griffin, and Fitzpatrick (2010) conducted a study based on Reed’s self-transcendence theory to evaluate the relationship between self-transcendence and spiritual well-being and to explore spiritual practices used by 87 older breast cancer survivors, age 65 and older who were diagnosed within the last five years. The author did not mention stages of breast cancer at time of diagnosis. Three participants were African American women, and one was Asian. Participants completed three measures: the STS measured self-transcendence; Spirituality Index of Well-Being (SIWB) measured spiritual well-being; and a Spiritual Practices checklist identified personal spiritual practices used by the participants. Cronbach’s alpha for these scales ranged from .80 to .88 for the STS and .91 for the SIWB. Self-transcendence and spiritual well-being were found to be significantly positively related in the sample. Participants reported an average of 10 spiritual practices including family activities, helping others, praying alone, recalling alone, recalling positive memories, relaxation, praying with others, listening to/playing music, visiting a house of worship or quest place, reading spiritual materials, exercise, meditation, and yoga. A benefit of the study was that is the only study found that is similar to the proposed study in design (descriptive correlational), variables (self-transcendence/spirituality, well-being/illness distress, and spiritual practices) and measures (STS and a Spiritual Practices
Checklist). Weaknesses of the study were homogeneity of the sample, participants were selected from one hospital, the sample may have included only spiritual or religious participants, and participants were excluded if they were currently receiving chemotherapy or radiation or had received therapy in the last 60 days.

The role of self-transcendence in optimism, well-being, coping and other variables was examined in a sample of women (n = 93; 4 were African American) ages ranged from 39 to 79 diagnosed with breast cancer and receiving radiation therapy (Matthews & Cook, 2009). The purpose of the study was to evaluate the relationship between optimism and emotional well-being, and the individual and combined mediation of this relationship by perceived social support, problem focused coping, and self-transcendence (p. 716). Stages of breast cancer were I-IV with 89% diagnosed at Stage I or II. Measures included the Positive Affect Scale (PAS) that measured emotional well-being; the Life Orientation Test (LOT) measured optimism; the Social Support Questionnaire (SSQ) measured the degree of perceived social support; the Jalowiec Coping Scale subscale Problem-Focused Coping (PFC) measured coping; the STS to measure self-transcendence; and the Symptom Distress Scale (SDS) measured distress. The Crohbach’s alpha for these scale ranged from .73 to .86. Results revealed direct positive relationships between optimism and emotional well-being, optimism and perceived social support, optimism and self-transcendence. Self-transcendence was also found to be significant mediator for optimism and emotional well-being. Strengths of the study were concurrent examination of several possible mediators to well-being and the study was conducted in a population receiving radiation treatments. Limitations of the study were that it was a cross sectional study, the small size of the sample, and the homogeneity of the study.
In a study of chronically ill older African Americans (n = 96), Upchurch and Mueller found that self-transcendence was significantly related to the ability to carry out instrumental activities of daily living (IADL) independently of age, gender, education and self-rated health, particularly among the less educated elders (Upchurch & Mueller, 2005). Participants’ ages ranged from 62 to 93 years old. While this study did not focus on cancer survivors or on healthy lifestyle behaviors, the findings suggest that self-transcendence may help support self-care abilities in African American older adults. In the study, measures used were STS that measured the degree in which an individual measure self-transcendence; the Spiritual Perspective Scale (SPS) that measured an individual’s spiritual views, Instrumental of Activities of Daily Scale (IADL) measured a person’s ability to engage in self-care activities, and the Self-Rated Sub Index measured well-being related to physical health. Cronbach’s alphas of the scale ranged from .72 to .88. Results revealed that the STS scores were significantly related to IADL whereas SPS scores were unrelated. Interestingly, STS and education was associated with the least educated participants. A strength of the study was that it focused on spiritual and personal experiences related to spirituality. Weaknesses of the study included small sample size, the inability to generalize the data, and an unbalanced sample by gender.

**Spirituality and Well-Being in Cancer Survivors and Other Serious Illnesses**

Considerable research has been done in which positive relationships were found between spirituality and various indicators of well-being such as coping, hope, and quality of life. Lewis, Sheng, Rhodes, Jackson, and Schover (2012) conducted semi-structured interviews with 33 African American breast cancer survivors under age 45 years (range 25 to 45) to identify their psychosocial concerns. Participants were asked questions related to how cancer impacted their
living situations, employment, relationships, fertility, sexuality, and special perspective of African American breast cancer survivors. Concerning the impact of cancer on the living situation, 15% of women lived alone, 39% of the women lived with spouses or significant others, 27% of the women either moved in with someone or had someone move in with them to assist with care. However, not all women had these resources, 19% had family who could help but was unable to help due to financial reasons. Most of the women (93%) were employed at the time of diagnosis. Less than half (46%) of women reported that cancer did not impact their employment. On the other hand, 24% reported that cancer had a positive impact on their employment whereas 24% reported that cancer negatively impacted their employment including job loss due to cancer. In reference to relationships, over 50% of participants reported the need for functional and emotional support. Family members, God, and church were identified as important sources of support. In reference to romantic relationships, 55% of the women had difficulty dating for various reasons. In addition, 50% of participants believed that cancer had a negative impact on the relationship and partner’s emotions. Fertility and the desire for children was another area of concern. Almost half (44%) of the women had at least one child prior to diagnosis. Additionally, 48 participants verbalized that they wanted children but did not discuss the concern with their healthcare providers. Almost three-quarters (73%) of the participants reported that the oncology health care providers did not mention sexuality. In addition, 33% of participants reported that cancer had produced one sexual related problem. The most common sexual problem identified was the loss of desire for sex reported by 39% followed by vaginal dryness reported by 24% and painful intercourse was reported by 21%. Several women preferred not to discuss sexuality. More than half (61%) of the participants reported the most common anxiety related issue was the
fear of dying from cancer. However, most participants indicated that their anxiety had decreased after diagnosis and treatment. Some (18%) participants indicated that cancer strengthened their religious faith and spirituality. Over 60% indicated that breast cancer had a special meaning for them and that cancer provided unique strength and resiliency from their spiritual and religious beliefs. Special perspectives that participants identified were that breast cancer had a special meaning. However, there was a stigma associated with breast cancer, which does not allow for open discussion or support seeking. Almost half (48%) of participants reported that being African American helped them cope with breast cancer along with their religious strength and strong family support (p. 177). Conversely, 45% of participants reported that being African American made it harder to cope with breast cancer by being viewed as damaged sexual being and having difficulty discussing cancer openly and with someone of their ethnicity. Strengths of the study were that it included young African American breast cancer survivors and it focused on psychosocial issues. Weaknesses of the study were the sample size, women with advanced cancer were excluded, and the sample was better educated.

The coping story specifically related to religion and spirituality was a primary theme that emerged in qualitative research by Gregg (2011) with 23 African American women diagnosed with breast cancer. Coping story was defined as “the mechanism used by respondents to manage their diagnosis and treatment” (p. 1046). Participants were interviewed twice. Three subthemes were derived from the coping story: spirituality, acceptance, and the strong black women blues. Spirituality was identified as the primary coping mechanism. A few (n = 16) of the participants indicated that they attended weekly church services and that prayer and meditation were beneficial. A few of the other participants indicated that they resumed participating church after
Participants indicated that they accepted the diagnosis of cancer and physical changes as a means of coping. The strong black women blues is a phenomenon that can be considered as a blessing and a curse. The blessing aspect of this phenomenon is that black women are seen as resilient, robust, reliable, and are often looked to for guidance and counsel. However, the curse aspect of this phenomenon is that because of the blessing qualities, the black women often suffer from self-neglect, fatigue, and perceived loneliness with suffering in silence. Lewis, Sheng, Rhodes, Jackson, and Schover (2012) also reported this phenomenon. Overall, African American cancer survivors maintained a state of well-being by coping through spiritual measures. A strengths of Gregg’s study explored religious and spiritual coping strategies of African American women. Limitations of the study participants were from specific targeted areas, there is no guarantee that other African American women from other areas of the United States will use the same coping strategies, the small sample size, and mean age of 58.5 years.

Research have reported that older African American women use spirituality and religion for coping more than younger women. In a qualitative study of 47 African American women’s coping methods for with breast cancer, the 87% indicated that they used at least one religious or spiritual practice (Lynn, Yoo, & Levine, 2011). Participants were interviewed and asked open-ended questions related to the meaning and role of spiritual and religious practices during their cancer trajectory. Three religious and spiritual behaviors were practiced most often by participants: attendance at religious services (the major theme), comfort through prayer by others, and encouragement through the reading of biblical scriptures. Attendance of religious services provided these women with a place to worship, gain inspiration, and receive support. Prayers were comforting for the participant because it provided strength and emotional support.
Daily reading of scriptures and mediations provided a connection to God and provided hope and encouragement on a daily and in time of distress (Lynn, Yoo, & Levine, 2011). A strength of the study was that the study explored coping using religious and spiritual strategies. Limitations of the study were restrictions of questions to how women cope through the cancer trajectory and the study was a cross sectional study.

Rosmarin, Wachholtz, and Ai (2011) analyzed 12 studies related to spirituality and health. Several disease processes including their biomarkers and physiological markers were related to spirituality. Disease processes in this study were human immunodeficiency virus progression, congestive heart failure, cardiovascular reactivity, post-surgery recovery, pain tolerance, and mental health status. Findings revealed that spirituality positively significantly impacted a slowed human immunodeficiency virus progression and significantly impacted immunology markers such as CD4 cells and the viral load. High levels of spirituality were associated with a decreased risk of cardiovascular disease. Although cancer was not included in the disease processes studied, this study is significant to the study because it revealed how spirituality can impact the progression of diseases. A strength of the study was that it reported how religion and spirituality impacts health and health indices. No limitations of the study were identified.

In the study of 111 participants in men and women with end-stage congestive heart failure, the association of religious struggle and well-being was examined. Participants consisted of 56% of Caucasians, 39% African Americans, 10% Latino ethnicity, and 5% Native Americans with a mean age of 66.7 (11). Religious struggle was found to be a predictor of mental and physical factors in advanced heart disease patients (Park, Wortmann, & Emmondson, 2011).
Religious struggle encompasses “interpersonal, intrapersonal, and divine categories and includes conflict with others on religious issues, disillusionment with religious beliefs, doubts about one’s faith, guilt, and perceived distance from or anger toward a higher power” (p. 426). Measures used in the study included: the Religious Strain Scale measured religious struggle; the Daily Experiences Scale (DES) measured religious comfort; Religious identification measured self-report of religious a person; Satisfaction with Life Scale (SWLS) measured mental and physical well-being; CES-D measured depression; SF-12 measured health-related quality of life; the Minnesota Living with Heart Failure Questionnaire (MLWHFQ) measured heart failure-related physical impairment; and hospitalization was measured by self-report of the number of hospital stays in the past three months. Results of the study revealed that religious struggle was associated with decreased psychological well-being including less life satisfaction and more depression. However, religious struggle did not impact mental or physical health-related quality of life in which their mental or emotional health did not limit daily activities. Interestingly, religious struggle was related to a higher number of nights a patient was hospitalized and this was noted in individuals who attested to a higher level of religious identification. A strength of the study was that it revealed that even religious people experience spiritual struggle during times of illness. Weaknesses of the study were a small sample size, a cross sectional study, and homogeneity of the sample.

**Spirituality and Health-Promoting Behaviors**

Although a significant body of knowledge exists related to spirituality and African Americans, there is a paucity of research focused on spirituality and African American women breast cancer survivors, particularly as it relates African Americans and healthy lifestyle
behaviors. However, in one recent correlational study of African American men and women, Debnam et al. (2012) examined the relationship between spiritual health locus of control (active and passive) and health behaviors. Active spiritual health locus of control was defined as a “belief that a higher being empowers a person to be proactive about health behaviors or that one works in partnership with a higher power to stay in good health” (p. 2). The authors defined the passive dimension of spiritual health locus of control was defined as “a belief that because only a higher power is in control of health outcomes, there is no reason to engage in health behaviors” (p. 2). Participants 21 years of age and older were recruited and participated in telephone interviews. The sample included 1,464 women and 906 men. The study measured active and passive spiritual health locus of control using Spiritual Health Locus of Control instrument; unspecified measures were used to measure health behaviors; the 5-A-Day Survey was used to measure the consumption of fruits and vegetables; the International Physical Activity Questionnaire (IPAQ) was used to measure physical activity; and, items from the Behavior Risk Factor Surveillance System (BRFSS) were used to measure alcohol intake. The authors did not report the internal consistency of the measures. Results revealed that the active dimension of spiritual health locus of control was positively associated with fruit consumption and it was negatively associated with alcohol consumption. The passive dimension of the spiritual health locus of control negatively impacted vegetable consumption and positively associated alcohol consumption. The increase in intake of consumption of alcohol was associated more with African American men. Interestingly, neither active nor passive health locus of control impacted the use of physical activity (Debnam et al., 2012). Although the study did not include African American women with breast cancer, it provided important information related to African
Americans and healthy lifestyle behaviors. A strength of the study was that it was the first study to examine the role of spiritual health locus of control with disease prevention and health risk behaviors. Weaknesses of the study were based on self-reported data; the sample included well-educated African American who attended church regularly. The results will not be generalizable. The study was cross-sectional which may limit the ability to draw conclusions on causality of the relationships.

Spiritual strategies were also examined in research with 31 African American women with breast cancer to determine if spiritual counseling could affect weight loss (Djuric et al., 2009). Spiritual strategies included the use of telephone-based spiritual counseling, meditation, readings, use of reflective journaling, prayer, and the use of faith-based organizations. Spiritual counseling was used to address issues that may interfere with weight loss and to incorporate spiritual resources to promote healthier behaviors using participants’ own identities resources (Djuric et al, 2009). The telephone calls ranged from weekly to monthly based on the participants’ need during the 18 months of the intervention. Results revealed modest weight loss from baseline to six months. Spiritual counseling was significant in affecting spiritual well-being and dietary selections.

Specific spiritual strategies have been found significant for healthy behaviors in community-based participatory research. Yeary et al. (2011) study involved 26 African American women to test the feasibility of a faith-based weight loss intervention. The women did not have breast cancer; however, their findings may be relevant to this study as it is focused on African American women. The purpose of the study was to test the feasibility of the study that included faith and health, healthy eating, physical activity, behaviors strategies for weight
management, and barrier to change. Measures were collected at baseline and at 16 weeks. The measures used in the study were: anthropometrics measured body measurements, a 16-item checklist measured physical activity; the National Cancer Institute Quick Food Scan measured the percentage of calories from fat; and a self-monitoring journal was used to record daily dietary intake, physical activity, and time with God (p. 4). Spiritual and religious strategies included prayer, scripture readings, and bible study. The leaders conducted weekly 90 minutes session that address faith and health, physical activity, and barriers and strategies to change behavior.

Telephone support was also included as a means of delivering spiritual counseling. Results revealed that the study was found to be feasible in delivering a church-based health promoting intervention by lay health advisors. Participants reported satisfaction with the inclusion of scripture to promote health and that it motivated them to make healthy choices, there was an 84% retention rate, there was a 2.66% weight loss, an increase in physical activity. Although there was no significant change in dietary intake, participants reported an increase in social support for healthy eating. The findings support the premise that spirituality, spiritual perspectives, and behaviors can directly impact engagement in healthy behaviors. Strength of the study was that it was a feasibility study that demonstrated that it could be conducted in future study. Weaknesses of the study the use of self-report data and there was a convenience sample.

**Prayer**

Considerable research existed that supports the significance of prayer in physical and emotional well-being. Wachholtz and Sambamoorthi (2011) analyzed the national trend from 2002 to 2007 on usage of prayer as a coping mechanism for health concerns specifically in dealing with pain. The large sample size consisted of adults older than 18 years of age in 2002 (n
= 30, 080) and in 2007 (n = 22, 306). The majority of participants were white women in both years. Measures used in the study were the 2002 and 2007 NHIS Alternate Medicine Supplement measure questions about prayer; and the 2002 NHIS was used to measure pain. Prayer was identified as the third most frequently used alternative medicine practice and was most often used by women diagnosed with breast cancer (p. 67). Three groups of prayer types were identified, groups who never prayed, groups who prayed in the past 12 months, and groups who did not pray in the past 12 months. Findings revealed that there was a significant increase in prayer usage within the last 12 month for health concerns from 43% in 2002 to 49% in 2007. Dental and recurring pain was associated with prayer usage in the last 12 months. Positive health behaviors such as not smoking, and not drinking alcohol were associated with prayer usage. Additional variables were significant in determining prayer usage in 12 months for health: women used prayer more than men, African Americans used more than whites, married compared with other categories, higher education compared to lower education, change in health status, physical limitations, and individuals who were depressed sometime or all the times. Strengths of the study a large representative sample size and explored use of prayer over time. Weaknesses of the study were it could not assess causal or temporal relationships and it did not obtain information on the types of prayers used.

Perez et al. (2011) conducted a study to determine the relationship between different types of prayer and depressive symptoms. The sample consisted of 179 cancer outpatient with Stage II to Stage IV cancers 18 years and older. The ethnicity consisted of 93.9% white, Christian women and 2.2% African Americans. Measures included: medical records to determine type and stage of cancer; the Multidimensional Prayer Inventory (MPI) to measure the
frequency, duration, efficacy, and types of prayers; UCLS measured the type and source of social support; Ruminative Responses Scale-Revised (RRS-S) measured responses to depressed mood; Center for Epidemiological Studies-Depression Scale (CES-D) measured depression. The Cronbach alphas for the scale ranged from .71 to .92. Results indicated that prayers of thanksgiving, adoration, reception, and prayers for others were negatively associated with depressive symptoms. Further, social support was found to be mediator between prayers for others and depressive symptoms. A strength of the study were identified the association between types of prayer and well-being in cancer patients. Weaknesses of the study were a non-random, predominately White, female sample; the possibility of the inclusion of more spiritually oriented people; a cross sectional design.

In an integrative review where both qualitative and quantitative studies (n = 13) were reviewed, Tate (2011) explored the importance of spirituality throughout the trajectory of African American women experience with breast cancer. Common themes that were identified among all the studies were emotional support, health care providers, difficulty talking to partner about feeling, quality of life, relationship with and reliance on God, and God’s will, prayer, and coping. The primary sources of support were God, family and friends although they were not always supportive. Support groups were found to be culturally insensitive. However, they were found to be beneficial when prayer and spirituality was incorporated. Women trusted God to guide they to the right health care providers who were supportive when asked about spirituality and engaged in spiritual activities with them. African American women were found to be reluctance in talking about their breast cancer diagnosis. The ability to rely on God and trusting that it is his will when African American women are diagnosed with breast cancer provides
coping strategies through the use of prayer. Breast cancer diagnosis was found to increase quality of life by enhancing spirituality, improve family relationships, build stronger sense of self, and strengthen faith in God. The breast cancer experience is not viewed as fatalism because it is God’s will. Instead, the experience is viewed as testing of one’s faith that is turned into a testimony, as an opportunity to get closer to God and to strengthen African American women’s spirituality. Overall, spirituality was identified as the primary coping mechanism throughout the entire breast cancer experience. Strength of the study was it explored coping mechanisms by using religious and spiritual strategies. No limitations were identified.

**Spirituality versus Religion**

Finally, in research that distinguished between spirituality and religion, both were found significant in adjustment to cancer. Kristeller, Sheets, Johnson, and Frank (2011) conducted a cluster analysis of 124 non-terminal cancer survivors’ (men and women) responses on several widely used instruments. Participants consisted of 91% Caucasians, 59% females with ages ranging from 35 to 87. The mean age was 62. Participants completed the Functional Assessment of Chronic Illness Therapy-Spiritual Well-being Scale (FACIT-Sp) measured religious and spiritual well-being and general well-being; Functional Assessment of Cancer Therapy-General (FACT-G) measured health related quality of life and included physical, social and family, emotional, and functional well-being; the Brief Symptom Inventory (BSI)-Depression scale measured depression; Religious Coping (RCOPE) measured coping responses to life stressor (p. 553); Organizational Religiousness and Private Religious Practices form measured religious practices; Daily Spiritual Experiences (DES) measured common daily religious and spiritual experiences (p. 554). The author identified four clusters: high religion/high spirituality, low
Results revealed that two clusters, the high religion/high spirituality, and low religion/high spirituality had very good adjustment. They were actively involved in their religion and possessed a strong sense of spirituality well-being. The negative religious copers, were depressed, and not dealing well with life events; however, they displayed the ability to cope within themselves using their own inner meaning and peace. A strength of the study is that it identified several cancer groups demonstrating how cancer survivors cope using different methods. Weaknesses of the study were the size and homogeneity of the sample.

**Synthesis**

Qualitative and quantitative studies were included in the review of the literature to obtain a comprehensive, historical review of the literature related to African American breast cancer survivor’s self-transcendence, illness distress (emotional well-being) and level of engagement in health promoting behaviors. No studies were found related to the specific focus of the study to understand the relationships among three spiritually related transcendence variables (psychosocial, spiritual, and religious self-transcendence) and illness distress (as an indicator of emotional well-being) and the engagement of health promoting behaviors in African American women diagnosed with breast cancer. Findings from the studies indicated that spirituality may positively influence well-being as well as health-promoting behaviors in African American women and breast cancer survivors. Components of theory-driven interventions, lifestyle behaviors, and spiritual strategies, were generally effective in the studies. Few quantitative studies included African American breast cancer survivors. When they were included in a study, they represented a small percentage of participants. The major gap identified in the literature
review was that the studies did not include several of the key components of the proposed study: 1) African American women; 2) breast cancer survivors; 3) theory-driven using Reed’s Theory of Self-Transcendence; 4) spiritual strategies; and, 5) health-promoting behaviors. In addition, distinctions between different kinds of self-transcendence (e.g., psychosocial, spiritual, religious) for their relevance in coping or health behaviors were not been specifically studied among African American women groups. Although significant studies were included, according to Cochrane’s level of evidence, the overall level of evidence was low due to the types of studies that were included. Future research should employ studies that can provide stronger evidence.

Reed’s (1991) Theory of Transcendence has been used extensively in the research studies to promote well-being in different target populations including breast cancer populations; however, the author was unable to locate research studies that applied the theory exclusively in the African American breast cancer population. In the some quantitative studies identified, only one to four African American participants were involved comprising of less than 5% to 10% of the samples. The majority of the studies that exclusively included African American women with breast cancer were qualitative studies. In general, spirituality research on African American women has been studied. The findings are controversial indicating that different levels of spirituality may positively or negatively influence African Americans’ health-promoting behaviors. However saliently, older African American women were noted for their strong spiritual beliefs that directly impact their health and/or healthy behaviors. This study recruited young African American breast cancer survivors to provide a more comprehensive view of spirituality in the targeted population.
CHAPTER III: METHODOLOGY

This chapter describes the proposed research design, sample and setting, data instruments, data collection and analyses used to address the research questions.

Research Design

The proposed study design was a descriptive correlational design. The author designed an electronic survey consisting of six measures formatted in the Qualtrics survey tool to obtain data regarding the first six research questions. Data for the seventh research question was obtained using a semi-structured interview questionnaire to interview a sub-sample of participants about the relevance of spiritually-related factors in their coping with breast cancer.

Sample and Setting

The recruitment goal was to obtain a minimum purposive sample size of 60 African American women, age 18 years and older and diagnosed with breast cancer. The sample size of 60 was determined by power analysis using an expected effect size of .30 based on correlations found in previous studies on spirituality, and a power of .80 needed to identify significant effects and reject the null as recommended by Cohen and Cohen (1975) for a correlational study (t-test of correlations), at a level of significance at the .05 level. Power analyses to determine desired sample size are the same for bivariate correlational or multiple regression correlational analyses (Field, 2005). Participants completed an online survey in Qualtrics, a survey tool and if agreed they participated in a telephone interview that was recorded using the RadioShack Phone Recorder Controller in conjunction with a RadioShack Desktop Cassette Recorder.

Participants were recruited from six parishes in the Acadiana Region IV area of Louisiana: Acadia, Iberia, Lafayette, St. Martin, St. Landry, and Vermillion. The parishes were
selected based on breast cancer averages related to mortality and incidence; they are above the Louisiana’s state averages of breast cancer incidence (119.6/100,000) and mortality (28.9/100,000). Also, these five of the six parishes exceed the national breast cancer average of mortality (24.5/100,000) and three of the six parishes exceed the national average of incidence (121.9/100,000) (NCI, 2013). The parishes’ incidence rates are Iberia (137.5/100,000), Acadia (123.9/100,000), St. Landry (123.3/100,000), St. Martin (121.4/100,000), Lafayette (119/100,000), and Vermillion (114.5). The parishes’ mortality rates are Lafayette (32.4/100,000), Acadia (31.5/100,000), Vermillion (30.3/100,000), Iberia (29.7/100,000), St. Martin (25.4/100,000), and St. Landry (23/100,000). The study inclusion criteria were: a) ages 18 years and older; b) English speaking; c) self-identified as African American; d) diagnosed with breast cancer; e) the ability to read in English; and, f) access to computer, mobile devices, and/or telephone. The age group criterion enabled the author to obtain information about spirituality in young African American breast cancer survivors. Exclusion criteria were: a) no access to computer, mobile devices, and/or telephone; and, b) participants are unable to read.

**On-line Survey Methods**

All six of the surveys with the exception of the interview questions were compiled into one comprehensive survey in Qualtrics, an on-line survey tool. In Qualtrics, several features were activated to protect participants’ identifying information and to ensure data was protected. No panels were developed in Qualtrics to prevent recording of participants’ names once they completed the survey. *Anonymize Response, Prevent Ballot Box Stuffing, Prevent Indexing,* and *Open Access* features were activated. *Anonymize Response* allowed participants IP address to be removed from the results. *Prevent Ballot Box Stuffing* prevented subjects from completing the
survey more than once. Prevent Indexing was used to avoid search engines from completing the survey more than once. Open Access was activated to allow anyone to access the survey link once it was posted on social media and the advertisement venues. In addition, the display logic feature was used to design certain safeguards to ensure participants met the inclusion criteria to participant in the study (Qualtrics, 2014).

The last question that was generated in Qualtrics was an option to obtain participants’ email address to receive a $10 Wal-Mart eGift card for compensation. Once participants completed the study, the author emailed participants a $10 Wal-Mart eGift card for compensation along with an electronic thank you card. The author provided funds for the $10 Wal-Mart eGift cards. Because there were more than 60 participants that were budgeted for, the author randomly chose 60 participants to receive the eGift cards.

There are benefits and limitations associated with using on-line surveys. Benefits include the ability to access a large sample size, faster recruitment time, low cost associated with on-line delivery, and the potential for ease of delivery for computer literate participants. The use of Qualtrics allowed the author to take advantage of these benefits. Limitations include participants’ burden due to the length of certain surveys, lack of familiarity with the computer and the study, surveys maybe missed or deleted if they go into spam, privacy and confidentially of the web, participants may be reluctant to participate, and the unknown identify of the respondents (Sage, 2015). In Qualtrics, the author controlled for participants burden by activating the save and continue feature that allow participants to complete the survey in two weeks with the ability to stop and return to complete the survey. The other limitations listed were outside the authors’ control.
Pilot Study

Prior to the actual study, the author conducted a pilot test the procedure by asking three healthy African American women, age 20 years and older, to complete the on-line survey in Qualtrics and the telephone interview. The pilot test was conducted to determine completion time of the on-line surveys, test the interview questions, and to determine if any changes were needed prior to initiating the study. The on-line completion time ranged from 18 to 40 minutes. Completing the entire survey in one attempt was found to be difficult. Therefore, the save and continue feature was activated in Qualtrics that allowed participants two weeks to complete the study from the time it was started to completion to prevent participants’ burden and to minimize attrition. An issue was identified related to women understanding the meaning of two interview questions. As a result, the phrase of “health promoting behaviors” in Questions 4 and 5 was replaced with to “healthy behaviors.”

Human Subjects Protection Procedures

Permission to conduct the proposed study was requested from the Office of Nursing Research at the University of Arizona College of Nursing, the Arizona Cancer Center Scientific Review Committee, and the University of Arizona’s Institutional Review Board (IRB). Once permission was obtained, participants were recruited from several community resources including: exercise classes, faith-based organizations, beauty salons and barbershops, community events, and social media (the Breastnspirit Facebook page). A disclaimer was included on the first page of the Qualtrics survey that included a written description of the purpose and consent to participate in the study (Appendix E). Participants were informed that by reading the disclosure statement and selecting the “I agree” button that they were providing consent to
participate in the survey. Participants were not allowed to proceed with the survey if they do not select the “I agree” option. No participants were enrolled in person; therefore, no paper consents were required.

**Recruitment Procedures**

Permission was obtained from the owners of private businesses such as the beauty salons, barbershops, and from an instructor of a breast cancer survivor exercise class. The author disseminated an advertisement flyer (Appendix C) containing the link to the survey to the aforementioned locations and displayed it and the link on the Breastnspirit Facebook page. If a participant requested the link to be sent to her, then the PI used the email function in Qualtrics to send the survey. The “ballot box stuffing” function in Qualtrics was used to prevent participants from completing the survey more than once. At community events, on-site recruitment occurred. Recruitment methods employed at community events were the dissemination of flyers along with providing a question and answer session related to the study.

**Telephone Interviews**

In addition, the investigator conducted telephone interviews using seven semi-structured questions with a subgroup of the sample to address Research Question 7. Telephone interviews were conducted with a subgroup (n = 10) of participants after they completed the survey and provided their contact information in Qualtrics. Participants were asked seven semi-structure questions using a telephone script (Appendix D). To remain consistent in conducting and recording telephone interviews, no interviews were conducted at community events or in person. All telephone interviews were recorded.

**Instruments**
The investigator used six measures to obtain data from the study participants. Some of the instruments were standardized, two were new instruments developed by the author to address questions related to the study. Permission was obtained and granted to use the six measures. The instruments used were: 1) a demographic and Health-Related Questionnaire (DHQ) developed by the investigator; 2) Reed’s (1991) Self-Transcendence Scale (STS); 3) Reed’s (1987) Spiritual Perspective Scale (SPS); 4) Spiritual/Religious Practices Questionnaire developed by the investigator; 5) a modified version of the National Comprehensive Cancer Network (NCCN) Distress Thermometer which was titled the Distress Scale (DS); and, 6) Walker’s (1987) Health Promoting Lifestyle Profile II (HPLP II).

**Demographic and Health-Related Questionnaire (DHQ)**

The author developed the *Demographic and Health-Related Questionnaire (DHQ)* to describe the overall characteristics of the sample and identify potential correlates of illness distress or health promoting lifestyle behaviors. This questionnaire consisted of 14 items that yielded information on sociodemographic information (age, education, employment, marital status, employment, and family status to identify potential support systems in the home, religious affiliation, date and stage at diagnosis, and treatment status). On the DHQ, participants had the option to select an item from the list or type a response.

**Self-Transcendence Scale (STS)**

Reed’s (1991) *STS* was used to measure psychosocial self-transcendence. The STS is an unidimensional scale that was developed to measure level of self-transcendence in terms of the person’s perception about his or her connectedness within self, to others, to something greater than self, and across one’s past, present, and future. The instrument emphasizes psychosocial
dimension of spirituality. The items draw from a comprehensive and holistic view of an emotionally mature individual. The scale contained 15 items on a 4-point Likert-type scale with response options ranging from 1 (not at all) to 4 (very much). The total scores possible range from 15 to 60. The STS has demonstrated good reliability based on findings from previous research by Reed and many other investigators (Reed, 2014). The measure had a strong internal consistency with a Cronbach’s alpha of .93 to .95 (Reed, 1987).

**Spiritual Perspective Scale (SPS)**

Reed’s (1986) SPS was used to measure spiritual self-transcendence. The SPS was developed to measure an individual’s spiritual perspectives and behaviors. The SPS is a 10-item unidimensional scale that “measures participants’ perceptions of the extent to which they hold certain spiritual views and engage in spiritually-related interactions” (Reed, 1987). The instrument emphasizes spiritual rather than psychosocial dimensions of spirituality. This measure had strong internal consistency with a Cronbach’s alpha above 0.90 (Reed, 1987). Summing the scores on each of the 10 items scores the scale. Each item is score ranges from 1 to 6. For questions 1 to 4, the range was 1 (not at all) to 6 (about once a day). For questions 5 to 10, the range was 1 (strongly disagree) to 6 (strongly agree). Total scores range from 10 to 60.

**Spiritual/Religious Practices Scale (SRPS)**

The SRPS is Likert-type developed by the investigator to explore the type and frequency of participants’ spiritual/religious behaviors. The Likert-type scale was designed to assess if participants engaged in religiously based spiritual behaviors and if so, how often participants use them. The interval scale consisted of five items with responses that ranged from 1 (none) to 5 (more than 3 times per week). The total scores ranged from 5 to 25. There was a sixth item that
allowed participants to write a response. Because this was a newly developed scale, the initial Cronbach’s alpha 0.69 was obtained from this study. The SRPS scale took in consideration that not all individuals engage in spiritual/religious behaviors. This tool was designed to capture specific questions related to the study.

**Distress Scale (DS)**

The DS measures illness distress. The DS was developed as a screening tool to assess the level of distress cancer patients experience during their cancer trajectory, from the time of diagnosis until the completion of treatment. The DS consists of five categories of problems that typically affect one’s life: practical problems (6 items); family problems (4 items); emotional problems (6 items); physical problems (22 items); and spiritual/religion concerns (5 items). In each category, participants rated their distress level by moving a blue bar across the slider to the number that best described how much distress she was experiencing related to a particular problem or concern. The overall distress scale mean score was calculated by obtaining the total average of the mean scores across the subscales. The total score possible on the DS ranged from 0 (no distress) to 10 (distress). A score of 4 or greater on the distress scale denoted a significant level of distress and required a referral based on the type of distress identified. A community resource document was developed and included in Qualtrics (Appendix B). The document was generated if a participant scored of 4 or greater. The significance of the DS to the proposed study is to determine the level of emotional well-being or distress exhibited by cancer patients with reference to specific categories, notably including spiritual or religious concerns. This provides additional data on whether spiritual perspectives or behaviors influence the level of distress (NCCN, 2013). The NCCN DT has demonstrated good sensitivity and specificity (Ryan,
Gallagher, Wright, & Cassidy, 2012). No reliabilities were reported in the literature. In the study a Cronbach’s alpha was conducted to determine reliability of the instrument, given the modification in scaling.

**Health Promoting Lifestyle Profile II (HPLP II)**

The purpose of Walker’s (1987) *HPLP II* was to measure health promoting behaviors in six domains: health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management. The HPLP II was a 52-item tool based on a 4-point response format ranging from 1 (never) to 4 (routinely). For the total scale, the alpha coefficient of the HPLP II is 0.94. For the subscales, the alpha coefficients ranged from 0.79 to 0.87 (Walker & Hill-Polerecky, 1996). An overall score is achieved by calculating a mean of the individual responses to all 52 items. The six subscales are achieved by calculating a mean of the responses to the subscale responses (Walker, Sechrist, & Pender, 1995).

**Semi-Structured Interview Questions**

*Semi-structured interview questions* were used to explore the participant’s own views on spirituality, spiritual perspectives and behaviors, illness distress (emotional well-being), and health promoting behaviors. Interviews were conducted in a subsample of 10 participants selected from a larger sample (n = 537) of participants who indicated that they were willing to participate. The interviews were conducted by telephone and recorded to ensure accuracy of the interview. The questions are listed in Table 1 and Appendix A.
TABLE 1. *Semi-Structured Interview Questions.*

**Questions:**

1. Do you consider yourself a spiritual and/religious person? If yes, continue with questioning. If no, do not proceed with questioning.
2. What does spirituality mean to you?
3. Do your spiritual views influence your emotional well-being or help in times of distress? If so, can you explain how?
4. Does your spirituality help motivate you to engage in health-promoting behaviors?
5. What are health-promoting behaviors where your spiritual views help you to participate in?
6. From the time of diagnosis, when did you first rely on your spirituality?
7. Was there any particular time during your cancer journey where your spirituality helped you?

**Data Collection Procedure**

Data collection occurred in two phases. Phase I involved administering the surveys online in Qualtrics. Because participants had the option to take the questionnaire in the privacy of their environments, privacy was maintained. During Phase II, participants who agreed to participate in a telephone interview were called by the investigator and asked the seven specific semi-structured interview questions.

**Data Management and Analysis Procedure**

Data were exported from Qualtrics to SPSS Version 22 for data analysis. Descriptive statistics were used to analyze the responses on the Demographic and Health-Related Questionnaire. The internal consistency of each instrument was estimated using Cronbach’s alpha. For research questions 1 through 4, Pearson’s correlation was used to examine relationship among the variables. For research questions 5 and 6, multiple regression and additional relevant analyses, were used to identify and examine relationships among variables. The level of significance was set as *p-value* of less than 0.05. Multiple regression using the enter (empirical) method was conducted to explore the combination of self-transcendence and
demographic and health-related variables that best relates to illness distress. To address the potential multicollinearity, the SPS score was eliminated from this regression analysis because of its high correlation with STS score and the initial regression analysis that included the SPS score generated uninterpretable beta weights.

For research question 7, the author used content analysis to analyzed responses to the semi-structured interview questions. According to Elo and Kyngas (2008), content analysis is a research method used to quantify and describe phenomena from written, verbal, and/or visual forms of communication. Inductive content analysis is used to obtain more detailed information about a phenomenon that has limited to no extant information. To answer the research question, three processes of inductive content analysis open coding, creating categories, and abstraction were used to answer the research question “what spiritually-related perspectives and practices do these women identify as significant to their illness distress or well-being and to their daily lifestyle behavior?” Open coding is the process of writing notes and labeling potential themes while reading and reviewing the transcribed data. Creating categories is the process of forming groups of categories to organize the data by grouping similar data together. Abstraction is the process of formulating a description of the research question through the production categories to formulate themes inferred from the data and your theoretical framework (Elo & Kyngas, 2007). Open coding was explored during and after the author transcribed the telephone interviews.

**Missing Data**

Overall, in reviewing the data, less than 10% of the data was missing with the exception of self-reported information self on the Demographic and Health-related Questionnaire related to the item year of breast cancer diagnosis. Initially, the author used multiple imputations (MI) to
account for missing data; however, due to the nature and design of the scales, the distress scale in particular, the use of MI skewed the data. Therefore, the author elected not to use MI to assist with missing data. Missing data were controlled by standard operations in SPSS using listwise and pairwise deletion. In analyzing the measurements’ reliability, SPSS automatically used listwise deletion to delete any cases with missing data. In analyzing the correlations and regression, SPSS automatically used pairwise deletion. Although SPSS has built-in programs that automatically delete missing data depending on the type of analysis used, the author completed a detailed review of the complete data set to determine cases that had incomplete data. Cases that were identified with more that 50% missing data, the author manually deleted those cases.
CHAPTER IV: RESULTS

This chapter reports the findings of a correlational study to examine the relationships between self-transcendence (spirituality), illness distress (emotional well-being), and health-promoting behaviors among African American women diagnosed with breast cancer based on the analysis of seven research questions:

**Descriptive Statistics**

A total of 537 African American breast cancer survivors were enrolled in the study. The sample demographic and health-related characteristics are presented in Table 2. Participant’s ages ranged from 20 to 58 years with a mean age of 34 years. All were married and had at least one child. A little over half (51%) had one child, 39% had 2 children, and 10% had 3 children. Most participants completed high school. Support systems identified included biological and spiritual families, and a cancer center. The year of breast cancer diagnosis (n = 267) ranged from 1997 to 2014 indicating that participants had been diagnosed from less than one year to 14 years and most were currently receiving treatment.
TABLE 2. *Demographic Characteristics of the Sample (N = 537).*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percentage</th>
<th>mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>100%</td>
<td>33.8 (5.5)</td>
</tr>
<tr>
<td>Marital Status (married)</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Do you have children?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Do you have a support system?</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>.9%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>99.1%</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>21.2%</td>
<td></td>
</tr>
<tr>
<td>PRN</td>
<td>.2%</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>.6%</td>
<td></td>
</tr>
<tr>
<td>Educational Level</td>
<td>99.8%</td>
<td></td>
</tr>
<tr>
<td>Completed high school</td>
<td>60.7%</td>
<td></td>
</tr>
<tr>
<td>Completed college</td>
<td>38.7%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>.2%</td>
<td></td>
</tr>
<tr>
<td>Other (MBA, working on JD)</td>
<td>.2%</td>
<td></td>
</tr>
<tr>
<td>Stage of breast cancer when diagnosed</td>
<td>99.8%</td>
<td></td>
</tr>
<tr>
<td>Stage I</td>
<td>.7%</td>
<td></td>
</tr>
<tr>
<td>Stage II</td>
<td>77.1%</td>
<td></td>
</tr>
<tr>
<td>Stage III</td>
<td>11.2%</td>
<td></td>
</tr>
<tr>
<td>Stage IV</td>
<td>10.8%</td>
<td></td>
</tr>
<tr>
<td>Currently receiving treatment</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>532</td>
<td>99.1%</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>.9%</td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td>536</td>
<td>99.8%</td>
</tr>
<tr>
<td>Baptist</td>
<td>118</td>
<td>22.0%</td>
</tr>
<tr>
<td>Catholic</td>
<td>212</td>
<td>39.5%</td>
</tr>
<tr>
<td>Methodist</td>
<td>205</td>
<td>38.2%</td>
</tr>
<tr>
<td>Other (Christian)</td>
<td>1</td>
<td>.2%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Parishes</td>
<td>526</td>
<td>98%</td>
</tr>
<tr>
<td>Acadia</td>
<td>1</td>
<td>.2%</td>
</tr>
<tr>
<td>Iberia</td>
<td>195</td>
<td>36.3%</td>
</tr>
<tr>
<td>Lafayette</td>
<td>270</td>
<td>50.3%</td>
</tr>
<tr>
<td>St. Landry</td>
<td>58</td>
<td>10.8%</td>
</tr>
<tr>
<td>St. Martin</td>
<td>2</td>
<td>.4%</td>
</tr>
<tr>
<td>Missing</td>
<td>11</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

**Five Main Study Variables: Reliability of the Instruments**

The main study variables in this study were as follows: three *Self-Transcendence variables*, psychosocial self-transcendence measured by the STS; spiritual self-transcendence measured by the SPS; and religious self-transcendence measured by the SRPS; *illness distress*
was measured by the DS that consisted of five subscales: Practical, Family, Emotional and Physical Problems, and Spiritual/Religious Concerns; and health promoting behaviors was measured by the HPLP II scale that consisted of six subscales: Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, Interpersonal Relations, and Stress management. For scales with subscales (Illness Distress and Health Promoting Behaviors), the overall score was used in the main analyses to answer the research questions. Cronbach’s alpha was conducted to estimate internal consistency on each of the five scales. The alpha coefficients were all acceptable: above .80 for the established instruments and very close to .70 for the newly developed instrument (Zeller & Carmines, 1980).

Analyses were performed to determine that assumptions underlying multiple regression were met: normal distribution of data, linearity, homoscedasticity, and no perfect multicollinearity (Field, 2005). None of the assumptions were violated.

TABLE 3. Main Study Variables: Instrument Reliability and Scores on Each.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Cronbach’s Alpha</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Transcendence Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Transcendence Scale</td>
<td>.85</td>
<td>15.00 – 60.00</td>
<td>4.00 – 49.00</td>
<td>40.99 (5.23)</td>
</tr>
<tr>
<td>Spiritual Perspective Scale</td>
<td>.91</td>
<td>10.00 – 60.00</td>
<td>2.86 – 4.20</td>
<td>3.65 (.44)</td>
</tr>
<tr>
<td>Spiritual/Religious Practices Scale</td>
<td>.69</td>
<td>1.00 – 4.00</td>
<td>1.20 – 4.00</td>
<td>3.39 (.49)</td>
</tr>
<tr>
<td><strong>Illness Distress Scale</strong></td>
<td>.88</td>
<td>0.00 – 25.00</td>
<td>.13 – 8.44</td>
<td>7.23 (1.20)</td>
</tr>
<tr>
<td><strong>Health Promoting Lifestyle Profile II Scale</strong></td>
<td>.78</td>
<td>1.00 – 4.00</td>
<td>1.00 – 4.00</td>
<td>2.59</td>
</tr>
<tr>
<td>(.21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4 presents the correlations among the five main study variables. Several correlations were significant. The correlations between the predictor variables of STS, SPS, SRPS indicate potential multicollinearity between STS and SPS, which potentially could affect interpretation of regression analyses results. This is addressed below in presenting the findings.

TABLE 4. Correlations of the Study Variables.

<table>
<thead>
<tr>
<th></th>
<th>STS</th>
<th>SPS</th>
<th>SRPS</th>
<th>DS</th>
<th>HPLP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS</td>
<td>1.00</td>
<td>-.96</td>
<td>.49</td>
<td>-.83</td>
<td>.55</td>
</tr>
<tr>
<td>SPS</td>
<td>-.96</td>
<td>1.00</td>
<td>-.62</td>
<td>.80</td>
<td>-.65</td>
</tr>
<tr>
<td>SRPS</td>
<td>.49</td>
<td>-.62</td>
<td>1.00</td>
<td>-.51</td>
<td>.59</td>
</tr>
<tr>
<td>DS</td>
<td>-.83</td>
<td>.80</td>
<td>-.51</td>
<td>1.00</td>
<td>-.48</td>
</tr>
<tr>
<td>HPLP II</td>
<td>.55</td>
<td>-.65</td>
<td>.59</td>
<td>-.48</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Research Questions

For Research Questions 1, 2, and 3, bivariate correlations were analyzed between the three types of self-transcendence and each of the variables of illness distress and level of engagement in health-promoting behaviors. A summary of correlations is presented in Table 5.

Question 1. What is the Relationship Between Psychosocial Self-Transcendence and Each of the Two Variables of Illness Distress and Level of Engagement in Health-Promoting Behaviors?

Psychosocial self-transcendence was significantly inversely correlated with overall illness distress, r = -.80 and the overall level of engagement in health promoting behaviors, r = .49.

Question 2. What is the Relationship Between Spiritual Self-Transcendence and Each of the Two Variables of Illness Distress and Level of Engagement in Health-Promoting Behaviors?
Spiritual self-transcendence was significantly correlated to illness distress, \( r = .78 \) and the level of engagement in health promoting behaviors, \( r = -.54 \).

**Question 3. What is the Relationship Between Religious Self-Transcendence and Each of the Two Variables of Illness Distress and Level of Engagement in Health-Promoting Behaviors?**

Religious self-transcendence was significantly correlated to illness distress, \( r = -.51 \) and the level of engagement in health promoting behaviors, \( r = .55 \).

Overall, significant correlations existed between all three types of self-transcendence and overall illness distress and health promoting behaviors as displayed in Table 5. Positive and negative correlations were identified.

**TABLE 5. Correlation Analysis of Transcendence Scales, Illness Distress, and Level of Engagement in Health Promoting Behaviors (N= 537).**

<table>
<thead>
<tr>
<th>Scales</th>
<th>STS</th>
<th>SPS</th>
<th>SRPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress Scale</td>
<td>-.80**</td>
<td>.78**</td>
<td>-.51**</td>
</tr>
<tr>
<td>Health Promoting Lifestyle Profile II</td>
<td>.49**</td>
<td>-.54**</td>
<td>.55**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
- Cannot be computed because at least one of the variables is constant.

**Question 4. What Demographic and health-related variables Significantly Relate to Any of the Three Self-Transcendence (Psychosocial, Spiritual, Religious) Variables, Illness Distress, and Level of Engagement in Health-Promoting Behaviors?**

Demographic and health-related variables analyzed were age, number of children, support system (dichotomously scored as Yes = 1 and No = 2), stage of breast cancer (scored as 1 = Stage 1, 2 = Stage II, 3 = Stage III, and 4 = Stage IV, 5 = unknown), whether currently receiving treatment for breast cancer (dichotomously scored as Yes = 1 and No = 2), educational
level (dichotomously scored as High School = 1 and College = 2), and employment status
dichotomously scored as part time = 1 and full time = 2). The overall mean score of the Distress
Scale was 7.26 (1.13) and was significantly related to certain demographic variables. The overall
HPLP II mean score was 2.59 (.19) and was significantly related to certain demographic
variables. Significant positive and negative relationships were found across all seven
demographic variables.

Refer to Table 6 for the findings.

TABLE 6. Demographic and Health-Related Variables Significantly Related to Self-
Transcendence Scales, Illness Distress, and Level of Engagement in Health Promoting
Behaviors (N = 537).

<table>
<thead>
<tr>
<th>Scales</th>
<th>Age</th>
<th>No. of</th>
<th>Support</th>
<th>Employment</th>
<th>Stage of</th>
<th>Currently</th>
<th>Educational</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Children</td>
<td>System</td>
<td>Status</td>
<td>Breast</td>
<td>Receiving</td>
<td>Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cancer</td>
<td>Treatment</td>
<td></td>
</tr>
<tr>
<td>STS</td>
<td>-.20**</td>
<td>.47**</td>
<td>-.12**</td>
<td>-.50**</td>
<td>-.53**</td>
<td>-.02</td>
<td>-.07**</td>
</tr>
<tr>
<td>SPS</td>
<td>.27**</td>
<td>-.46**</td>
<td>-.04</td>
<td>.51**</td>
<td>.50**</td>
<td>.04</td>
<td>.63**</td>
</tr>
<tr>
<td>SRPS</td>
<td>-.25**</td>
<td>.60**</td>
<td>.25**</td>
<td>.21**</td>
<td>.21**</td>
<td>-.21**</td>
<td>.02</td>
</tr>
<tr>
<td>DS</td>
<td>.15**</td>
<td>-.52**</td>
<td>.33**</td>
<td>.26**</td>
<td>.31**</td>
<td>-.31**</td>
<td>.51**</td>
</tr>
<tr>
<td>HPLP II</td>
<td>-.20**</td>
<td>.14**</td>
<td>.03</td>
<td>-.24**</td>
<td>-.17**</td>
<td>.03</td>
<td>-.19**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
- Cannot be computed because at least one of the variables is constant.

Question 5. What Combination of Self-Transcendence and Demographic Variables Best
Relates to Illness Distress?

In Table 7, the model summary indicates that four predictor variables (psychosocial and
religious self-transcendence variables, support system and educational level) were statistically
significant and were identified as the combination that best predicted illness distress, R = .875,
R² = .765, Adj. R² = .763, p < .001. The predictor variables accounted for 76% of the variance in
illness distress. The Durbin-Watson statistic of 1.858 revealed that no autocorrelation existed in
this model. The Variance Inflation Factor (VIF) of 5.429 and a Tolerance score of .184 indicated no multicollinearity (Field, 2005).

TABLE 7. Regression of Illness Distress on Self-Transcendence and Demographic Variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>11.671</td>
<td>.941</td>
<td></td>
<td>12.404</td>
<td>.000</td>
</tr>
<tr>
<td>STS</td>
<td>-.226</td>
<td>.009</td>
<td>-.923</td>
<td>-25.157</td>
<td>.000</td>
</tr>
<tr>
<td>Support System</td>
<td>2.789</td>
<td>.343</td>
<td>.203</td>
<td>8.124</td>
<td>.000</td>
</tr>
<tr>
<td>SRPS</td>
<td>-.968</td>
<td>.097</td>
<td>-.387</td>
<td>-9.953</td>
<td>.000</td>
</tr>
<tr>
<td>Educational Level</td>
<td>-.496</td>
<td>.089</td>
<td>-.203</td>
<td>-5.550</td>
<td>.000</td>
</tr>
</tbody>
</table>

F(4, 511), R = .875, R² = .765, Adj. R² = .763, p < .001

Question 6. What Combination of Self-Transcendence and Demographic Variables Best Relates to Level of Engagement in Health-Promoting Behaviors?

In Table 8, a model summary included the four predictor variables (psychosocial and religious self-transcendence, number of children, and educational level) that significantly correlated with level of engagement in health-promoting behaviors, the dependent variable with a R = .776, R² = .602, Adj. R² = .599, p < .001. The predictor variables accounted for 60% of the variance in health promoting behaviors. Durbin-Watson statistic score of 1.994 indicated no autocorrelation. The VIF of 2.524 and a Tolerance score .396 indicated there was no multicollinearity (Field, 2005).

TABLE 8. Regression of Health-Promotion Behaviors on Self-Transcendence and Demographic and Health-Related Variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.702</td>
<td>.083</td>
<td></td>
<td>8.413</td>
<td>.000</td>
</tr>
<tr>
<td>STS</td>
<td>.031</td>
<td>.002</td>
<td>.831</td>
<td>16.108</td>
<td>.000</td>
</tr>
<tr>
<td>SRPS</td>
<td>.200</td>
<td>.015</td>
<td>.507</td>
<td>13.106</td>
<td>.000</td>
</tr>
<tr>
<td>No. of Children</td>
<td>-.149</td>
<td>.011</td>
<td>-.523</td>
<td>13.755</td>
<td>.000</td>
</tr>
<tr>
<td>Educational Level</td>
<td>.132</td>
<td>.017</td>
<td>.340</td>
<td>7.658</td>
<td>.000</td>
</tr>
</tbody>
</table>

F(4, 509), R = .776, R² = .602, Adj. R² = .599, p < .001
Question 7. In Their Own Words, What Spiritually-Related Perspectives and Practices Do These Women Identify as Significant to Their Illness Distress or Emotional Well-Being and to Their Daily Lifestyle Behaviors?

After the interviews were transcribed, three categories were formulated from the data to answer the research question. The three categories were spiritual related perspective, spiritually related practices, and daily lifestyle behaviors; the author reviewed and re-analyzed the data to abstract relevant data to the research questions. Three of the seven semi-structured interview questions were quantifiable, questions 1, 3, and 4. In questions 1 and 3, all participants answered “yes” that they considered themselves spiritual and/or religious and that their spiritual views influenced their emotional well-being or helped in times of distress. Nine out of ten participants answered “yes” that their spirituality helped them engage in health promoting behaviors. Although three of the seven questions were quantifiable, participants provided more detailed responses to questions 3 and 4.

Spiritual related perspective and practices that African American women diagnosed with breast cancer identified as significant to their illness distress or emotional well-being and to their daily lifestyle behaviors are listed in Table 9.
In addition, three themes emerged from the semi-structured interview. These themes are listed in Table 10.

TABLE 10. Themes

<table>
<thead>
<tr>
<th>Themes</th>
<th>Supportive Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helping Self</td>
<td>Participants expressed how they helped themselves through prayer, engaged in healthy lifestyle behaviors, maintained positive attitudes, and by followed the physician or nurses recommendations.</td>
</tr>
<tr>
<td>Helping Others</td>
<td>Participants expressed the need to help spouse, children, family, and breast cancer survivors.</td>
</tr>
<tr>
<td>Relying on a Higher Being</td>
<td>Participants expressed the need to pray, have conversations with God, rely on God or a higher power to be accountable for their lives and to get through the diagnosis, treatment, and survival of breast cancer.</td>
</tr>
</tbody>
</table>

Participants were also asked from the time of their breast cancer diagnosis when did they first rely on their spirituality and was there a particular time during their illness that spirituality was helpful. Several women verbalized that they had always been spiritual, so there was no realization to use their spirituality at the time of diagnosis or any other particular time. Other
women stated that they first used their spirituality when they were informed of their breast
cancer diagnosis while other women verbalized it was not until a few weeks later after the initial
shock. Particular times when participants relied on their spirituality was when they had surgery,
received chemotherapy treatments, and after a participant was diagnosed with breast cancer, two
months later, she was informed that her husband was diagnosed with renal cancer.

**Summary**

In summary, the results of the analysis of 537 participants determined that psychosocial
self-transcendence, spiritual self-transcendence, and religious transcendence scores are related to
illness distress (emotional well-being) and the level of engagement to health promoting
behaviors. The results of the enter (empirical) regression analysis determined which self-
transcendence and demographic and health-related variables best explained the variance in
illness distress and health promoting behaviors. Religious and psychosocial self-transcendence,
level of education, and social support combined were best related to illness distress. Psychosocial
self-transcendence, religious self-transcendence, number of children, and level of education
combined were best related to the level of engagement in health promoting behaviors.

Results of the content analysis of 10 participants parallel the quantitative findings that
self-transcendence are related to illness distress (emotional well-being) and the level of health
promoting behaviors. From the content analysis, participants self-reported to be spiritual with or
without religion, the need to be connected to a *Higher Being*, and the need to engage in daily
healthy behaviors. The use of spirituality and spiritual behaviors were also effective on a daily
basis as well as at pivotal times. Participants stated that helping others, helping themselves, and
believing in a Higher Being helped them survive the breast cancer journey from the time of diagnoses, completion of treatments, and while they are in remission.
CHAPTER V: DISCUSSION

Discussion of study findings is included in this chapter. Sample characteristics, study findings, strengths and weaknesses of the study, and implication for nursing research will be discussed. The purpose of this study was to understand relationships among three spiritually-related variables (psychosocial self-transcendence, spiritual self-transcendence, and religious self-transcendence), illness distress (as an indicator of emotional well-being), and health-promoting behaviors in African American women diagnosed with breast cancer. A secondary purpose was to explore and identify spiritually-related perspectives and behaviors that these women report using to minimize their illness distress and support healthy behaviors during their breast cancer trajectory.

Characteristics of the Sample

The sample consisted of 537 African American women diagnosed with breast cancer. Based on the quantitative studies reviewed and analyzed for this study, the current study consisted of the largest sample size of African American women diagnosed with breast cancer. The sample was relatively young with a mean age of 34, ranging from 20 to 58 years, which is significant because the author intended to capture the younger breast cancer survivors to obtain perceptions on their breast cancer experience and spirituality. Again compared to the quantitative studies reviewed, this was a younger sample. This finding may be attributed to the on-line survey delivery method. Nearly all participants were affiliated with a religious organization. This finding was expected since is documented in the literature that African American in the south are identified as religious (Gallop Poll, 2011; Newport, 2012).
The majority of participants responded that they did not have a support system despite their religious affiliation and marital status. Unfortunately, it was not known whether they were referring to not having a breast cancer support system in general, or to a lack of support from biological family members, spiritual family members, or social groups. However, 10 participants who engaged in the telephone interviews identified having support systems that included biological and spiritual families, coworkers, friends, husbands, children, Miles Perret Cancer Center, and other breast cancer survivors as sources of support. From the interviews, results were consistent with the qualitative study by Lewis, Sheng, Rhodes, Jackson, and Schover (2012) where over 50% of participants reported the need for functional and emotional support. Family members, God, and church were identified as primary sources of support. Coward’s (2003) study found that participants benefited from the support and recommended that continued support would be beneficial in helping women with breast cancer acquire well-being. The support system variable was a significant factor in the analysis, suggesting that perception of support is an important factor in both the level of illness distress and engagement in healthy lifestyle behaviors among women with breast cancer.

Time since breast cancer diagnosis ranged from less than one to fourteen years. This finding was consistent with breast cancer trends in Louisiana that showed an increase in incidence beginning in 1997 and with a sustained increase over a decade (SEER, 2015). The majority of participants were diagnosed at stage II. This finding differs from the official Louisiana statistics, which indicate that the majority of African American women diagnosed with breast in Region IV were diagnosed at stage 4 (SEER, 2015). However, the findings may reflect that the study did not capture more stage 4 participants due to the severity of the illness at that
stage and their inability to participate in the study. The majority of participants were receiving treatment, either chemotherapy or radiation.

**Research Questions**

The *theoretical framework* proposed that self-transcendence (measured by three self-transcendence variables: psychosocial, spiritual, and religious perspectives and behaviors) is related negatively to *illness distress* and positively to *level of engagement in healthy lifestyle behaviors*. Most of the correlations occurred in the expected directions, based on the theoretical framework. One relationship in particular was unexpected, which is discussed below.

While many bivariate correlations among the self-transcendence variables and demographic and health-related variables were significant, those potentially most clinically significant and of interest here are those predictors that remained significantly related to illness distress and/or health promotion behaviors in the multiple regression analyses. The significant predictors of illness distress and health promotion behaviors were similar although not exactly the same. In both analyses, psychosocial self-transcendence emerged as the most significant predictor.

The unexpected finding was the inverse relationship between spiritual self-transcendence and illness distress and the positive relationship between spiritual self-transcendence and level of engagement in health promoting behaviors. The finding contrasted with the theoretical framework, which proposed a positive relationship between these variables.

**Predicting Illness Distress**

*Illness distress* was best explained by four predictors: psychosocial and religious self-transcendence, presence of a support system and higher educational level. Consistent with other
research findings and Reed’s Self-Transcendence Theory, psychosocial self-transcendence was the most significant correlate of illness distress. Psychosocial self-transcendence was strongly and inversely correlated with illness distress. This finding maybe attributed the majority of participants reported that they were receiving treatment for breast cancer. Self-transcendence research that was identified in this study as psychosocial self-transcendence has shown that illness distress is inversely related and even predictive of clinical depression, as well as other negative emotional factors (Coward, 2003; Matthews & Cook, 2009, Koenig, 2012; Lewis, Sheng, Rhondes, Jackson & Schover, 2012; & Rosmarin & Wachholtz, 2011). It is likely that for these problems, resources other than or in addition to self-transcendence are important, which would target family or health-related issues. This finding supports the American College of Surgeons (ACoS) Commission’s mandate that cancer centers screen for distress in a patient with cancer at pivotal times, to assess the areas of distress, and to provide appropriate recommendations for treatment based on the identified areas of distress (Pirl et al., 2014). This finding is significant in because it reveals that the use or implementation of self-transcendence interventions for African American women with breast cancer may decrease level of illness distress.

The other three significant predictors of illness distress were religious self-transcendence, support system, and educational level. These findings indicate that less illness distress predicts more participation in religious practices. Engagement in religious practices such as praying, attending church services, and reading scriptures decreases the level of illness distress. This finding is consistent with previous studies (Djuric et al., 2009; Lynn, Yoo, & Levine, 2011; Thomas, Burton, Griffin, & Fitzpatrick, 2010; Wachholtz & Sambamoorthi, 2011; Yeary et al.,
Previous studies support the significance of religiousness in decreasing distress as well as decreasing other negative factors (Giger, Appel, Davidhizar, & Davis, 2008).

Another finding was that the more treatments breast cancer survivors receive, the more their illness distress increases. This finding may be attributed to the large number participants who are currently receiving treatment. Lewis, Sheng, Rhodes, Jackson, and Schover (2012) found that some participants’ treatments interfered with employment that is an area of distress. In addition, Kristeller, Sheets, Johnsons and Frank (2011) found that one cluster of cancer patients, negative religious copers, receiving radiation treatment were more depressed than other clusters. These findings were in part the impetus for the ASoC mandating distress screening and treatment in cancer patients (Pirl et. al, 2014).

**Predicting Health Promoting Behaviors**

The level of engagement in health-promoting behaviors was best predicted by the four predictor variables; psychosocial and religious self-transcendence, number of children, and educational level. This is consistent with previous research findings indicated that psychosocial self-transcendence is positively related to engagement in activities of daily living among chronically ill elders (Reed, 1991a). Although Upchurch and Mueller’s (2005) study was conducted in chronically ill older African Americans who did not have cancer, it revealed that spiritual self-transcendence may assist in support self-care ability. Similarly, Coyle (2001) found that spirituality can positively impact health by providing a positive mental attitude to adapt to adversity and change. Other studies suggest that self-transcendence mediates the relationship between increased vulnerability of serious illness and various indicators of well-being. Debnam et al. (2002) found that positive spiritual health locus of control was effective in promoting
engagement in healthy lifestyle behaviors. Therefore, self-transcendence may act as a psychosocial resource that helps promote engagement in healthy lifestyle behaviors. Continued research in this specific area is needed.

The strong positive relationship between religious self-transcendence and the level of engagement in health promoting behaviors was expected. Positive relationships were identified in the areas of physical activity, spiritual growth, interpersonal relations, and stress management. The weak, negative relationship of self-transcendence to health responsibility was considered an exception to the findings (significant because of the large sample size) given the small magnitude of the relationship. Overall, the findings are consistent with many previous research findings such as Rosmarin and Wachholtz’s (2011) report of their analysis of 12 studies related to spirituality and certain diseases and findings that spirituality impacted positive changes in health including biomarkers of health.

Number of children as a significant predictor may be explained in terms of children being a motivating factor in health behaviors. Children may also provide some emotional or social support to African American women in the face of breast cancer. Education was also found to be a predictor of the level of engagement in health promoting behaviors.

**Unexpected Findings: Spiritual Self-Transcendence as Related to Illness Distress and Level of Health Promoting Behaviors**

Although spiritual self-transcendence was not identified as being a significant predictor of either illness distress or health-promoting behaviors, the unexpected *positive bivariate relationship between spiritual self-transcendence and illness distress* was particularly interesting since the theoretical framework generally proposed positive relationships between self-
transcendence variables and positive health indicators. As the level of spiritual self-transcendence increases, the level of illness distress also increases. The results may reflect how women cope or do not cope with breast cancer. Spirituality may not always be a positive coping strategy for religious participants. Research on spiritual disequilibrium (Coward & Kahn, 2004), passive spiritual health locus of control (Park, Wortmann, & Emmondson, 2011), and negative religious copers (Kristeller, Sheets, Johnson, & Frank, 2011) identified instances wherein spirituality was not necessarily positively related to coping.

Further, while the correlations do not support interpreting any causal direction, the set of significant correlations along with the theoretical framework suggest that it is more plausible to interpret the results as illness distress influencing increased spiritual self-transcendence rather than the reverse – as increased spiritual transcendence influencing increased illness distress. At the least, one cannot rule out the possibility that increased illness distress may lead to increased spiritual perspectives as a way of coping with the distress. Although there is a plethora of literature showing self-transcendence influencing decreased illness distress, no literature was found supporting a causal relationship with illness distress influencing spiritual self-transcendence.

A second interpretation of this unexpected finding is that the spiritual self-transcendence measured spirituality more than religiousness; in this sample religious practices and beliefs may be more relevant than the broader, less religious form of spirituality measured in the SPS. Research (Cohen, Holley, Wengel, & Katzman, 2012; Koenig, 2012; Kristeller, Sheets, Johnson, & Frank, 2011) shows that there is a distinction between spirituality (non-theistic) and religiousness (typically theistic and more representative of beliefs in the southern region of the
United States). This second interpretation is consistent with another finding in this study, regarding religious self-transcendence, which was strongly and negatively related to illness distress in the overall scale and the illness distress subscales.

The strong, inverse bivariate relationship between spiritual self-transcendence and the level of engagement in health promoting behaviors was also unexpected. As the level of spiritual self-transcendence increased, the level of engagement in health promoting behaviors decreased. One interpretation is that locus of control may be a third variable influencing the relationship between spirituality and health promoting behaviors. According to other research findings, an active spiritual health of locus of control resulted in participants engaging in healthy behaviors where a passive spiritual locus of control resulted in participants not engaging in healthy behaviors (Debnam et al., 2012). While some participants may have perceived breast cancer as an opportunity to improve their health behaviors, some individuals already held the religious belief that God is in control and there is no need to greatly change their health behaviors (Kristeller, Sheets, Johnson, & Frank, 2011). Park, Wortmann, and Emmondson (2011) demonstrated that a lack of a strong, active spiritual life can negatively impact health and well-being. Additional contributing factors may be the participants’ ages, stages of breast cancer, and year of they were diagnosed with breast cancer. They were a relatively young sample. In the literature, it has been reported that older African American women tend to use their spiritual to cope more than young women. Possible interaction effects between demographic variables such as age and spirituality in predicting health promotion behaviors could be examined in future research analyses.
Future Research Questions to Explore

Although there was not a research question concerning the relationship between illness distress and the level of engagement in health promoting behavior, these two variables were presented in the framework with an unspecified relationship. Future research focusing on the relationship between illness distress and the level of engagement in health promoting behaviors should be examined. In this current study, there was a moderately strong inverse relationship between these two variables. As the level of illness distress increases, the level of health promoting behaviors decreases as would be expected.

Interview Results: Spiritually-Related Perspectives and Practices Identified as Significant to Illness Distress, Well-Being and to Daily Lifestyle Behaviors

Several spiritually-related perspectives and practices that African American women diagnosed with breast cancer identified as significant to their illness distress or well-being and to their daily lifestyle behaviors. Spiritually-related perspectives that these women identified were believing in a higher power, maintaining their faith, to pray and be forgiven, and to ultimately understand who is responsible for their religious and spiritual beliefs. Spiritual practices identified were belonging to a health care ministry, engaging in prayer and spiritual talks with God, and thinking about who (a higher power) help in a time of need and knowing that only God can help. These spiritual practices are similar to the practices identified by Thomas, Burton, Griffin, and Fitzpatrick (2010).

In the current study, participants identified several spiritual practices that included helping others, praying alone, recalling alone, recalling positive memories, relaxation, praying with others, listening to/playing music, visiting a house of worship or quest place, reading
spiritual materials, exercise, meditation, and Yoga. Prayer has been identified in several study as a frequently used spiritual practice (Lynn, Yoo, & Levine, 2011; Wachholtz & Sambamoorthi, 2011; Yeary et al., 2011). Daily lifestyle behaviors that were influenced by participant’s spirituality were engaging and teaching health promoting activities, living and eating healthy, communicating and sharing information with other women diagnosed with breast cancer, performing regularly self-breast exams, practicing health attitude and the follow health care providers instructions. In addition, three themes emerged from the telephone interviews.

The data reflect three themes in Reed’s self-transcendence theory, regarding expansion of self-boundaries intrapersonally, interpersonally and transpersonally. The theme of helping self represents the intrapersonal dimension of psychosocial self-transcendence. Participants reported using measure to help themselves that included the use of pray, engaging in healthy behaviors, maintaining positive attitudes, and follow medical advice. The theme of helping others represents the interpersonal dimension of psychosocial self-transcendence. Reports by the women of the theme of relying on a higher being reflects the transpersonal dimension of self-transcendence. These are consistent with findings from Coward (1990), and Coward and Kahn (2005) who revealed several themes consistent with Reed’s (1992) theory of self-transcendence: Self-transcendence occurs as a result of much effort usually from a life altering event such as cancer; self-transcendence generates a new meaning in life by increase an awareness of self (intrapersonal); self-transcendence encourages women diagnosed with breast cancer to help other while allowing them to receive help (interpersonal); and self-transcendence allowed women diagnosed with breast cancer to use prior skills and newly learned skills to reach beyond themselves (temporal and transpersonal). Thomas, Burton, Quinn, and Fitzpatrick (2010) found
similar findings. Matthew and Cook (2009) found that self-transcendence assist in finding meaning and promoting well-being.

Consistent with the theoretical framework and model, the three types of self-transcendence were found to be significant correlates of both illness distress and engagement in health behaviors. The unexpected finding of the positive relationship between illness distress and spiritual self-transcendence was also interpreted in a way that drew from the framework, but more research is indicated to better understand the relationship between spiritual perspectives and illness distress in African American women with breast cancer, perhaps in a different region of the country.

**Strengths and Limitations**

This study had several strengths and limitations. Strengths were the large sample of African American women diagnosed with breast cancer, the online format that allowed more participants to be recruited in short timeframe, and the study successfully evaluated measures that had not been tested in an exclusively in the African American female population, the study of distinctions between different kinds of self-transcendence (psychosocial, spiritual, and religious) for their relevance in coping or health behaviors among African American women diagnosed with breast cancer. To the author’s knowledge, this is the first study of its kind that examined the relationships among self-transcendence, illness distress, and level of engagement in health promoting behaviors in African American women diagnosed with breast cancer. The author considers that the major strength of study were the findings which decreased the knowledge gap pertaining to theory-driven studies of self-transcendence, spiritual strategies, and health promoting behaviors in African American women breast cancer survivors. In addition, the
use of on-line survey delivery method allowed the author to recruit a large sample size, recruit African American women diagnosed with breast cancer, and it decreased the recruitment time.

There were several limitations of the study. First, the study’s completion time along with the number of questions included in the Qualtrics survey may have been too much of a burden for some participants, and some questions were not completed. These cases were excluded from analysis. Second, although the online format was a strength of the study it was also a limitation in that some participants verbalized that they preferred the traditional pen and paper surveys, or to be interviewed in person. Alternatively, some women likely appreciated the anonymity of an electronic survey, as some were leery of doing the telephone interview. However, after the investigator explained that recording the telephone interviews was a requirement of the study and that it would ensure the accuracy of the information, participants were in favor of the telephone recording. Third, the language or wording used in the title and in some of the semi-structured interview questions were difficult to understand by some participants despite revising them after the pilot test. Participants stated that they did not know what the study was about based on the title. The author attempted to address this issue by providing a more plausible explanation on the social media page and at recruitment sites. The questions in the semi-structured interview were paraphrased and the author provided clarification of the questions to several participants. In reference to the finding related to whether participants had support systems, a fourth limitation was identified. The author was unable to determine if participants were referring to not having a breast cancer support system in general or were referring to a lack of support from biological and spiritual family members or social groups.
A fifth limitation was that the author received inquiries in reference to whether only spiritual women were recruited in the study. The resulting sample was overwhelmingly religious, which limits generalization of the findings to non-religious individuals. The convenience sampling in this study already limited the study’s generalizability. However, the large sample of religious women provided information for interpreting findings relative to this specific but important group of African American women with breast cancer. In addition, the findings support those of many other studies in which religiousness if not spirituality has been found to be an important correlate of health and well-being among African American individuals.

**Implications for Nursing Practice and Future Research**

Few studies exist in the literature related to spirituality and health promoting behaviors. However, no study was found to include all three study variables of self-transcendence (spirituality), illness distress, and level of engagement in health promoting behaviors among African American women diagnosed with breast cancer. The study findings provide support for continued research into the diversity of spirituality as related to illness distress, and health promoting behaviors in African American women, specifically in the areas of spiritual self-transcendence versus religious self-transcendence, how they may impact African American breast cancer survivors, and how types of illness distress impact this populations. In addition, future research is required related to the type of support system available, the amount of support used to cope, and how are support systems defined in this population. The significant findings along with the qualitative findings helped to deepen understanding of spiritual and religious views and practices among religious African American women who have breast cancer and the
potential relationships of those views and practices to emotional well-being specifically illness distress and health-promoting behaviors.

Themes identified from the content analysis are consistent with other finding related to Reed’s self-transcendence theory and other literature related to self-transcendence and spirituality. Also consistent with the literature was the finding that breast cancer survivors are distressed in several areas of their lives and requires screening to address this issue. Nurses and other health care provider should not only screen for illness distress but also to develop spiritual interventions to address distress because the study identified that different types of spirituality decrease illness distress.

Based on the study findings, the author concludes that future research should be directed toward designing randomized control trials that include interventions focused specifically on religious and psychosocial self-transcendence interventions, and interventions focusing on implementing religious perceptions and behaviors of African American women diagnosed with breast cancer to decrease illness distress and promote healthy behaviors. An area that has the potential to provide additional on how African American breast cancer uses self-transcendence to cope cancer is to conduct research related to the impact of spiritual distress prior to the use of self-transcendence. Overall, these findings provide a basis for designing a theory-based culturally competent intervention in the future to engage African American women to use spirituality to support emotional well-being by minimizing illness distress and supporting health promoting behaviors.

Findings from this study lend support to other health related initiatives, such as the American Cancer Society, American Surgeon General, Healthy People 2020 and Women Health
Initiatives to develop and implement strategies to help cancer survivors improve survivorship. These strategies include but are not limited to educating survivors on preventive and life sustaining measures.

**Conclusion**

The Healthy People 2020 breast cancer goal is to decrease the female death cancer by 20.7/100,000. Louisiana’s breast cancer mortality rate is 25/100,000 while the U.S. breast cancer rate is 22.2/100,000. In Louisiana, there is a clarion call to continue to stimulate and motive authors and health care professionals in Louisiana to research, develop, and implement innovative strategies to combat this health disparity. The findings of the study have potential to help advance nursing and scientific knowledge in reference to the relationships between three types of self-transcendence, illness distress (emotional well-being), and the level of health-promoting behaviors in African American women diagnosed with breast cancer. Obtaining more information about participants’ perceptions and understanding her cancer journey increases nursing and scientific knowledge in how to provide spiritually based-care, develop interventions, and assist African American women diagnosed with breast cancer. The themes that emerged from the telephone interview were helpful in expanding upon the quantitative results and in supporting the significant of religious behaviors and practices, in particular, in this population.
APPENDIX A:

SEMI-STRUCTURED SPIRITUALITY INTERVIEW QUESTIONS
<table>
<thead>
<tr>
<th>Semi-Structured Spirituality Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you consider yourself a spiritual and/or religious person? If yes, continue with questioning. If no, do not proceed with questioning.</td>
</tr>
<tr>
<td>2. What does spirituality mean to you?</td>
</tr>
<tr>
<td>3. Do your spiritual views influence your emotional well-being or help in times of distress? If so, can you explain how?</td>
</tr>
<tr>
<td>4. Does your spirituality help motivate you to engage in health-promoting behaviors?</td>
</tr>
<tr>
<td>5. What are health-promoting behaviors where your spiritual views helped you to participate in?</td>
</tr>
<tr>
<td>6. From the time of diagnosis, when did you first rely on your spirituality?</td>
</tr>
<tr>
<td>7. Was there any particular time during your cancer journey where your spirituality helped you?</td>
</tr>
</tbody>
</table>
APPENDIX B:

LIST OF COMMUNITY RESOURCES
List of Community Resources

Directions: The list of local resources is provided based on your responses on the Distress Scale related to practical, family, emotional, and physical problems, and spiritual or religious concerns. The list was generated because you scored a 4 or greater that indicates that you are distressed. Please write down any information that will be beneficial to you. For physical problems, please contact your healthcare provider. If you would like this list emailed to you, please contact me at jthomas2@email.arizona.edu

<table>
<thead>
<tr>
<th>Behavioral Health Resources</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Joseph H. Tyler Behavioral Health Clinic (Community Clinic)</td>
<td>302 Dulles Dr. Lafayette, LA 70506</td>
<td>(337) 262-4100</td>
</tr>
<tr>
<td>La Louisiane Mental Health, LLC</td>
<td>1225 Coolidge Lafayette, LA 70503</td>
<td>(337) 278-7183 (337) 456-6768</td>
</tr>
<tr>
<td>Compass Healthcare (Behavioral Center for Adults)</td>
<td>1015 Saint John Street Lafayette, LA 70503</td>
<td>(337) 268-9494</td>
</tr>
<tr>
<td>Bob Winston MD &amp; Associates</td>
<td>234 Rue Beauregard Suite 100 Lafayette, LA 70508</td>
<td>(337) 593-0830</td>
</tr>
<tr>
<td>Gad Psychiatric Group</td>
<td>102 Asma Blvd Suite 112 Lafayette, LA 70508</td>
<td>(337) 504-2332</td>
</tr>
<tr>
<td>Center for Psychiatric Solution</td>
<td>800 Kaliste Saloon Rd. Lafayette, LA 70508</td>
<td>(337) 233-2400</td>
</tr>
<tr>
<td>Dr. Susan E. Uhrich (Specializes in Psychiatry)</td>
<td>105 Independence Blvd. Suite 1 Lafayette, LA 70506</td>
<td>(337) 534-4087</td>
</tr>
<tr>
<td>Townsend Recovery Center</td>
<td>4540 Ambassador Caffery Pkwy Lafayette, LA 70508</td>
<td>(337) 216-7526</td>
</tr>
<tr>
<td>Dr. Edgardo R Concepcion (Specializes in Child and Adolescent Psychiatry)</td>
<td>1131 Rue Du Belier Lafayette, LA 70506</td>
<td>(337) 981-1400</td>
</tr>
<tr>
<td>Genesis Health Care Systems</td>
<td>847 Steward Street Lafayette, LA 70501</td>
<td>(337) 237-4672</td>
</tr>
<tr>
<td>Dr. David W. Craft (Specializes in Psychiatry)</td>
<td>318 Hospital Dr Abbeville, LA 70510</td>
<td>(337) 893-6131</td>
</tr>
<tr>
<td>Patricia Lafleur (Clinical Social Worker)</td>
<td>329 E. Main Street Suite 2 Opelousas, LA 70570</td>
<td>(337) 945-2424</td>
</tr>
<tr>
<td>Care for You</td>
<td>1238 Edith Street Opelousas, LA 70570</td>
<td>(337) 942-9292</td>
</tr>
<tr>
<td>Cancer/ Community Resources</td>
<td>Address</td>
<td>Phone Number</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>American Cancer Society</td>
<td>1604 W. Pinhook Rd Suite 203 Lafayette, LA 70508</td>
<td>(337) 237-3736</td>
</tr>
<tr>
<td>Miles Perret Cancer Center</td>
<td>2130 Kaliste Saloom Rd. Suite 200 Lafayette, LA 70508</td>
<td>(337) 984-1920</td>
</tr>
<tr>
<td>Susan G. Komen Foundation</td>
<td>303 Chance Street Lafayette, LA 70506</td>
<td>(337) 993-5745</td>
</tr>
<tr>
<td>St. Bernadette Clinic</td>
<td>409 St. John Street Lafayette, LA 70501</td>
<td>(337) 267-1437</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spiritual/Religious Resources</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diocese of Lafayette, Louisiana</td>
<td>1408 Carmel Drive Lafayette, LA 70501</td>
<td>(337) 261-5652</td>
</tr>
<tr>
<td>7th District Baptist Association</td>
<td>1014 South Main &amp; G. C. Chaney Street Jennings, LA 70570</td>
<td>(337) 824-6007</td>
</tr>
<tr>
<td>Louisiana United Methodist Church Conference</td>
<td>527 North Blvd. Baton Rouge, LA 70802</td>
<td>(225) 346-1646</td>
</tr>
</tbody>
</table>
APPENDIX C:

ADVERTISEMENT FLYER
Attention
Too Blessed to Be Stressed Sisters!!!

Why: To participate in a study on spirituality and well-being developed for African American women diagnosed with breast cancer.

When: Anytime that is good for you

Where: 10-minute telephone interview

Benefits of joining this study:
1. Contribute to breast cancer research for African American women
2. Assist in providing knowledge to nursing science and practice

Who is eligible to take the survey?
(must meet all 3 criteria)
1. 18 years or older
2. African American women
3. Diagnosed with breast cancer

Please note that this is a volunteer study.
If you have any questions, please contact me at email below.

Who do you contact?
Jeanine Thomas, MSN, RN, OCN @ ithomas2@email.arizona.edu

An Institutional Review Board at The University of Arizona reviewed this research project and found it acceptable, according to applicable regulations and policies designed to protect the rights and welfare of participants in research.
APPENDIX D:

TELEPHONE SCRIPT
Telephone Script

Hello, may I speak to _______________________. My name is Jeanine Thomas. I am a PhD nursing student at the University of Arizona. Thank you for agreeing to be interviewed for my research study. I want to remind you that this telephone interview is voluntary and you can stop at any time. The interview will last approximately 10 minutes, you will be asked 7 interview questions, and the interview will be recorded to ensure that I have an accurate account of our conversation. Please feel free to answer each question to the best of your knowledge. The first question is …

Thank you for your time. Have a blessed day!
APPENDIX E:

DISCLAIMER FORM/CONSENT
Disclaimer Form/Consent (the first page in Qualtrics)

**Purpose of the Study:**
The purpose of this study is to collect information on African American Breast Cancer survivor’s experiences in using spirituality to cope with breast cancer, distress, and how they engage in healthy lifestyle behaviors.

**What will occur:**
This study consists of two phases. Phase one includes answering the survey questions. You will complete an on-line survey containing various items that will ask your opinion about how you use spirituality to cope with distress and the breast cancer diagnosis, treatment, and recovery. The survey also contains items that will ask you to provide basic demographic information, such as age, gender, time of diagnosis, etc. The estimated time to complete the survey is 30 to 40 minutes. You will be allowed to save your responses and return at a later date. You will have 2 weeks to complete the study. Phase two consists of participating in an interview that includes 7 questions about your spiritual views.

**Benefits of this Study:**
There are no direct benefits to participants. However, by participating in this study, you will contribute to breast cancer research for African American women and you will assist in providing knowledge to the nursing science and practice.

**Compensation:**
You will receive a “Thank You” eCard with a $10 eGift certificate.

**Risks or Discomforts:**
This study is expected to pose minimal risk to subjects. Some of the questions may raise awareness of difficult areas in your life and contribute to some emotional discomfort. A list of local community resources will be displayed immediately if you score a 4 or greater on any one of the Distress Scales. You are encouraged to write any information that may be of assistance. The resource list provides information regarding various sources including Behavioral Health resources, Cancer/Community resources, and Spiritual/Religious Resources and includes names, phone numbers, and addresses of these resources. For physical problems, please contact your healthcare provider. If you would like the list emailed to you, please contact me at jthomas2@email.arizona.edu

**Confidentiality:**
Your responses will be kept confidential. The survey responses will be held in an account created by Qualtrics that is protected by a user name and password and only accessible by the researchers. Your name or any other identifying information will not be included in the survey. However, at the end of the survey, you will be asked to provide your name and number if you want to voluntarily participate in a 10-minute interview and will be asked 7 questions about your spirituality. Also, you will be asked to provide your email address for the researcher to send you the $10 Wal-Mart eGift card. If you provide your personal information, it will remain
confidential along with the survey results. Only researchers will be able to see your responses. The researchers will export your responses into a statistical analysis program that also will be secure.

**Protection of data confidentiality:**
Data will be accessed on a secure personal computer that has an encrypted hard drive. Data will be stored on this hard drive until the completion of the study after which a password protected disc will be stored in the College of Nursing room 410 and the primary investigator will retain a copy of the data on the encrypted personal hard drive that has passwords protection. Although survey data from Qualtrics will be stored at the College of Nursing for 6 years; immediately after the completion of the telephone interviews, names and telephone numbers will be deleted from the Qualtrics program. Participants’ email addresses will be deleted immediately after the “Thank You” ecard with a $10 Wal-Mart eGift is sent. Qualtrics also have privacy and security statements certifying that your information is protected, secured, encrypted, and that your information will not be sold (Qualtrics, 2009). At community events, using a private booth or area to complete the surveys will safeguard protection of your privacy.

**Decision to Quit at any Time:**
Your participation in this study is voluntary. This means that you are able to withdraw at any point during this study. If you have already started the survey and do not wish to continue, then you may leave the survey. If the survey is not submitted once you have finished, then your answers will not be saved. If you choose not to participate in the survey, you will not be removed from the listserv. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or on-line at http://ocr.arizona.edu/hspp. You may also contact the coordinator of this survey, Jeanine S. Thomas at jthomas2@email.arizona.edu or her advisor, Pamela Reed at preed@email.arizona.edu

**How the Findings will be used:**
The findings from this research project will be used for scholarly purposes only. The results from the study will be presented at a professional conference and may be published in a research article.

**Consent:**
I have read the consent and agree to participate in the study. By selecting the “I agree, you will be allowed to proceed with the study. By selecting the “I do not agree” button, you will not be allowed to proceed with the study and you will be taken out of the survey.
APPENDIX F:

SUPPORT LETTERS
University of Arizona  
College of Nursing  
P.O. Box 210203  
Tucson, AZ 85721-0203

June 2, 2014

Committee Members:

My name is Dr. Chancellor Donald, hematologist/oncologist, at Louisiana Oncology Associates, PMC. I am also the Medical Director of the Oncology Service Line at Our Lady of Lourdes Regional Medical Center in Lafayette, Louisiana. The purpose of this correspondence is to attest to the professionalism and stellar character of nurse Jeanine Thomas.

I have directly observed Ms. Thomas as manager of nursing on the oncology unit for the past few years. Her tireless devotion to patients and the delivery of their care is readily evident. She has maintained the highest standards in ensuring the nurses that she mentors reach their full potential while placing patient care first. This passion is only rivaled by personal desire to learn and achieve in the field of nursing.

Though I am not directly involved in her pursuit of her doctorate, I can, with no reservations, say she will undertake this path with the purest intentions and absolute focus.

I am pleased to lend my support and recommend with no reservations this worthy candidate.

Sincerely,

Chancellor Donald, MD
May 20, 2014

To whom it may concern:

RE: Letter of Support

Congregational Health Services (CHS) is submitting this letter in support on behalf of Jeanine Thomas, PhD candidate. This letter is a commitment of assisting Mrs. Thomas with recruiting eligible participants for her doctoral project on breast cancer. CHS is a program that partners with churches of various denominations with a goal of promoting holistic health within the church community and the community it serves. The vision is to decrease as well as prevent the effects of disease and its process through education, prevention, early detection and referral. Most of the church partners are located in high risk targeted areas where heart disease, cancer, poverty, diabetes are prevalent.

Mrs. Thomas project fits perfectly with the mission and vision of Congregational Health Services and will assist by allowing her to make announcements and advertisement at church and community sites, setting up and assisting with registering participants for information of her project and recruitment as applicable.

I hope that you will approve this letter of support on behalf of Mrs. Thomas.

Sincerely,

[Signature]

Iris Malone, DNP, FNP-BC
Congregational Health Service Coordinator
June 2, 2014

RE: Letter of Support

To Whom It May Concern:

On behalf of Jeanine Thomas, PhD candidate, this letter is a commitment of assisting Mrs. Thomas with recruiting eligible participants for her doctoral project on breast cancer. As an advanced practice oncology nurse practitioner, I navigate newly diagnosed breast cancer patients throughout their continuum of care.

I am affiliated with a faith based community hospital, as well as a breast center. Breast cancer is among our top three cancer diagnoses. Our services offer education on cancer prevention, early detection, and treatment.

I will assist Mrs Thomas with recruiting consented participants for the purpose of information gathering as applicable for completion of her project.

Please approve this letter of support on behalf of Jeanine Thomas.

Sincerely,

Jeannine LaFrance, AOCNP-BC
6/5/2014

RE: Support Letter

To Whom It May Concern:

As a Minister and patient advocate for prevention and early treatment of breast cancer, this letter is to express my support to Jeanine Thomas, PhD candidate, by recruiting eligible participants for her doctoral project on breast cancer.

Jeanne and I have collaborated in bringing to my community information on breast cancer. The information provided during the free seminars, primarily focused on women but included information to males as well. The seminars were well received and the information provided was found to be of great value to a high-risk community.

I will assist Mrs. Thomas with registering and recruiting consented participants for the purpose of information collection as required for the completion of her project. Approval of Mrs. Jeanine Thomas project will be a great asset to the communities as well as health professions that will benefit from her findings.

Sincerely,

Lucille Woodard
Minister Lucille Woodard RN-MA-BSN-BC
University of Arizona
College of Nursing
P.O. Box 210203
Tucson, AZ 85721-0203

To Whom it May Concern:

My name is Herlaine Pitts. I am the owner of Herlaine’s Beauty Salon in Opelousas, Louisiana. The purpose of this letter is to attest that I will support Jeanine Thomas in her educational endeavors. I will allow her to post flyers related to her study in my place of business as well as promote the study to the best of my ability.

Sincerely,

[Signature]

Herlaine Pitts,
Owner
Herlaine’s Beauty Salon
APPENDIX G:

PERMISSION FORMS TO USE SCALES
STS Request Form

1. Jeanine S. Thomas, requests permission to copy the Self-Transcendence Scale (STS) for use in my research (indicate master’s thesis, dissertation, or other research) titled, Relationships Between Self-Transcendence, Illness Distress, and Health Promoting Behaviors in African American Breast Cancer Survivors (Dissertation project).

In exchange for this permission, I agree to submit to Dr. Reed Items 1 and 2 below, and 3 if available:

1. An abstract or copy of my study purpose and findings, which includes the range of STS scores and the mean STS score in my group of participants, and correlations between the STS scale scores and other measures used in my study. (This will be used by Dr. Reed to assess construct validity.)

2. The reliability coefficient as computed on the scale from my sample (Cronbach’s alpha).

3. A computer print out or file listing the STS data on each subject, along with my data coding dictionary as available.

Any other information or findings that could be helpful in assessing the reliability or validity of the instrument would be greatly appreciated (e.g. problems with items, comments from participants, other findings).

These data will be used to establish a normative data base for clinical populations. No other use will be made of the data submitted. Credit will be given to me in reports of normative statistics that make use of the data I submitted for pooled analyses.

Date: June 2, 2014

Name: Jeanine S. Thomas, MSN, RN, OCN

Position: PhD Student, University of Arizona, Tucson

Mailing Address: 139 Arapaho Lane, Opelousas, Louisiana 70570

Email address: jhappy27@aol.com

Permission is hereby granted to copy the STS for use in the research described above.

Pamela G. Reed, PhD, RN, FAAN

Date: ___June 2, 2014________

Please email this completed form to Dr. Pamela Reed at preed@nursing.arizona.edu and keep a copy for your files.
**Spiritual Perspective Scale**

Pamela G. Reed, PhD, RN, FAAN  
Professor  
University of Arizona College of Nursing  
1305 N. Martin St.  
Tucson, AZ 85721-0203  
Email: preed@nursing.arizona.edu

**SPS REQUEST FORM**

I, (insert your name), request to copy the Spiritual Perspective Scale (SPS) for use in my research entitled, (insert title of research), and indicate the nature of the research (e.g. thesis, dissertation, work-related, etc.)

In exchange for this permission, I agree to submit to Dr. Pamela G. Reed a copy of items 1 and 2 as follows:

1) An abstract of my study purpose, framework, and findings, especially which includes the correlations between the SPS scale scores and any other measures used in my study. (This will be used by Dr. Reed to assess construct validity).

2) The reliability coefficient as computed on the scale from my sample (Cronbach’s alpha).

Any other information or findings that could be helpful in assessing the reliability or validity of the instrument would be greatly appreciated (e.g., problems with items, comments from subjects, other findings).

This information will be used only to help determine the instrument’s psychometric properties across various samples. No other use will be made of the information submitted. Credit will be given to me in any reports of normative statistics that make use of the information I submitted for pooled analyses.

Date: 5/14/14

Researcher’s Name: [Handwritten Name]

Professional Position: [Handwritten Position]

Mailing Address: [Handwritten Address]

Email Address: [Handwritten Email Address]

Permission is hereby granted to copy the SPS for use in the research described above.

Pamela G. Reed, RN, PhD, FAAN  
Date: 5/14/14

*Please return this form completed to Dr. Reed by email, and keep a copy for your own records.*
Dear Colleague:

Thank you for your interest in the Health-Promoting Lifestyle Profile II. The original Health-Promoting Lifestyle Profile became available in 1987 and has been used extensively since that time. Based on our own experience and feedback from multiple users, it was revised to more accurately reflect current literature and practice and to achieve balance among the subscales. The Health-Promoting Lifestyle Profile II continues to measure health-promoting behavior, conceptualized as a multidimensional pattern of self-initiated actions and perceptions that serve to maintain or enhance the level of wellness, self-actualization and fulfillment of the individual. The 52-item summed behavior rating scale employs a 4-point response format to measure the frequency of self-reported health-promoting behaviors in the domains of health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations and stress management. It is appropriate for use in research within the framework of the Health Promotion Model (Pender, 1987), as well as for a variety of other purposes.

The development and psychometric evaluation of the English and Spanish language versions of the original instrument have been reported in:


Copyright of all versions of the instrument is held by Susan Noble Walker, EdD, RN, FAAN, Karen R. Sechrist, PhD, RN, FAAN and Nola J. Pender, PhD, RN, FAAN. The original Health-Promoting Lifestyle Profile is no longer available. You have permission to download and use the HPLPII for non-commercial data collection purposes such as research or evaluation projects provided that content is not altered in any way and the copyright/permission statement at the end is retained. The instrument may be reproduced in the appendix of a thesis, dissertation or research grant proposal. Reproduction for any other purpose, including the publication of study results, is prohibited.

A copy of the instrument (English and Spanish versions), scoring instructions, an abstract of the psychometric findings, and a list of publications reporting research using all versions of the instrument are available for download.

Sincerely,

Susan Noble Walker, EdD, RN, FAAN
Professor Emeritus
From: PermissionRequest <PermissionRequest@nccn.org>
To: jhappy27 <jhappy27@aol.com>
Sent: Thu, May 29, 2014 11:02 am
Subject: RE: NCCN Permissions Requests Submission: Other (University of Arizona, Tucson)

Hi Jeanine,

Thank you for your response. Permission is not required for the use, translation, or adaptation of the content within the Screening Tools for Measuring Distress (DIS-A) from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Distress Management for personal use (including use with patients). If adaptations are being made to the figure DIS-A, all NCCN logos, trademarks, and names must be removed prior to production.

The Screening Tools for Measuring Distress (DIS-A) may not be used for any commercial purpose, including publication in Journal, Text Book, etc., without the express written permission of NCCN. If incorporating the NCCN Distress Tool into an EHR, use is approved for individual hospital use only, and not for further distribution by the EHR vendor.

Thank you and please let me know if you have any questions.

Regards,

Kimberly Brydges
Business Development Specialist
National Comprehensive Cancer Network (NCCN)
275 Commerce Drive • Suite 300
Fort Washington, PA 19034
Telephone: 215.690.0573
brydges@nccn.org
REFERENCES


