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IMAGE OF GOD: EFFECT ON COPING, PSYCHO-SPIRITUAL WELL-BEING AND FEAR OF RECURRENCE IN EARLY BREAST CANCER SURVIVORS

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ABSTRACT OF DISSERTATION

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The Graduate School

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2009

IMAGE OF GOD: EFFECT ON COPING, PSYCHO-SPIRITUAL WELL-BEING AND FEAR OF RECURRENCE IN EARLY BREAST CANCER SURVIVORS

ABSTRACT OF DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the College of Nursing at the University of Kentucky

By

Judith Anne Schreiber

Lexington, Kentucky

Director: Dr. Dorothy Y. Brockopp, Professor of Nursing

Lexington, Kentucky

2009

ABSTRACT OF DISSERTATION

IMAGE OF GOD: EFFECT ON COPING, PSYCHO-SPIRITUAL WELL-BEING AND FEAR OF RECURRRENCE IN EARLY BREAST CANCER SURVIVORS

The purpose of this dissertation was to examine whether a breast cancer survivor's view of God influences her religious coping strategies, depression, anxiety, stress, fear of recurrence, and psychological well-being. These variables were selected based on literature that demonstrates relationships among them for breast cancer survivors. The specific aims of this dissertation were to: 1) identify religious coping strategies common to each of the four views of God; 2) examine the relationship of psychological well-being (Ryff) and religious coping strategies; and 3) examine differences in depression, anxiety, stress, fear of recurrence, and psychological well-being among women holding various views of God.

Three manuscripts comprise this dissertation. The first manuscript is a systematic review of the literature describing what is known about the relationships between psychological adjustment and religion/spirituality (R/S) in women with breast cancer. The second manuscript examines the psychometric properties of the Image of God Scale in a population responding to a crisis event, women with breast cancer. The original scale was developed from a general population survey. Finally, the third manuscript investigates the relationships between view of God, religious coping strategies, and psychological adjustment in women with breast cancer.

The systematic review identified three primary themes: 1) R/S domains and psychological adjustment; 2) dynamics of R/S conservation and struggle; and 3) reframing the cancer experience. The psychometric analysis confirmed the original 2-factor model with factor loadings ranging from .56 to .83. Cronbach's alphas for the two subscales – belief in God's anger (.80) and belief in God's engagement (.89) – were consistent with those established at development. Differences were found between views of God and use of religious/spiritual coping strategies focused on Spiritual Conservation and Spiritual Struggle. Psychological Well-Being (SPWB) was inversely correlated with Spiritual Struggle. Differences were noted for psychological well-being, Fear of Recurrence, and the Stress subscale in women who viewed God as highly engaged or not. No differences were noted for the same variables in women who

view God as more or less angry. Direct comparisons between groups and variations in outcomes based on common views of God could lead to effective screening for persons at risk for particular outcomes and to effective individualized interventions.

KEYWORDS: Breast Cancer, Survivor, Psychological Adjustment, Religion, Spirituality

Judith Anne Schreiber, RN, PhD
Student's Signature

July 13, 2009
Date

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DEDICATION

I would like to dedicate this dissertation to God for giving me the ability and intellect to complete this research and my doctoral education. I would also like to dedicate this work to the women who took the time to answer all the questions and to provide me with the information necessary to complete this study. Each wonderful breast cancer survivor has a story to tell and I am humbled by their phenomenal responses.

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I received equally important assistance from family and friends. My sister, Nancy Johnson, DrPH, provided on-going support throughout the dissertation process, as well as thorough critiques of various parts of the dissertation. My parents, Milton and Esther Schreiber, instilled in me the belief that I could accomplish anything if I worked hard and stuck with it. My maternal grand-parents, John and Anna Toepler, set the example of hard work and steadfastness for multiple generations. Arriving in America as immigrants with limited resources and not knowing the language, they started with virtually nothing and left a phenomenal legacy through children, grand-children, and great-grandchildren. My friends far and near have encouraged me in many ways through the entire dissertation process, and I thank them. Finally, I wish to thank the respondents of my study. Their comments and insights regarding their view of God and their adjustment to surviving breast cancer created an informative and interesting project with opportunities for future work.

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CHAPTER ONE

Overview of Chapters One, Two, Three, Four, and Five

An overview of the framework for this dissertation, including the theoretical basis and rationale for the specific concepts studied are presented in Chapter One. Discussion regarding worldviews and their influence on behaviors and attitudes is presented. For this dissertation, relationships between a worldview based on a breast cancer survivor's view of God and religious/spiritual coping and psychological adjustment was studied. As 95% of the American public believes in some version of God (Bader et al., 2006), understanding how, or if, this belief in God impacts coping and psychological adjustment could direct future research and useful interventions.

Chapter Two is a systematic literature review that critically analyzes and synthesizes the relationships between psychological adjustment and religion/spirituality (R/S) in women with breast cancer. There are numerous studies that have included all or some combination of these factors, but few that examined relationships between the variables. The systematic review was completed in order to evaluate the role of religion/spirituality in psychological adjustment. Future directions for research are discussed.

A precise, yet universal means of categorizing religious/spiritual beliefs or worldviews has not been available. The individual's view of God is a measure that has the potential to codify religious/spiritual beliefs. In Chapter Three, a psychometric analysis of the Image of God Scale (IGS) was completed to appraise the functionality of the scale in women responding to a crisis event, a cancer diagnosis. The original instrument was derived from a general population sample and the psychometric properties reflected this population. Results in comparison to the original psychometrics are discussed.

Results are reported for a cross-sectional, non-experimental design study that investigated the relationships between view of God, religious coping strategies, and psychological adjustment in breast cancer survivors in Chapter

Four. Types of religious coping strategies used, psychological outcomes, and self-reported views of God are discussed and recommendations for future research are included.

Chapter Five provides an overview of religion/spirituality and psychological adjustment, study findings, and the usefulness of the IGS in breast cancer survivors. The ability to classify individuals by common views of God is an important contribution to clarify the measurement of the religious/spiritual dimension. Direct comparisons between groups and variations in outcomes based on common views of God could lead to effective screening for persons at risk for particular outcomes and to effective individualized interventions.

Introduction

An individual's view of God is thought to influence core strivings and life principles (Emmons, Cheung, & Tehrani, 1998; Maynard, Gorsuch, & Bjorck, 2001; Pargament, Magyar-Russell, & Murray-Swank, 2005). For this reason, how one views God may be a key component in understanding an individual's ability to deal with stressful situations such as a diagnosis of cancer. Based on the perceived importance of religion in the lives of Americans, the Baylor Institute for Studies of Religion (ISR) completed a general population survey on religion in the United States (Bader et al., 2006). ISR researchers surveyed 1,721 participants and used the data to develop a scale that describes two distinct dimensions of belief in God (God's level of engagement and God's level of anger) that generated four views of God: Benevolent, Authoritarian, Critical, and Distant. Determination of the specific roles of religion/spirituality has been difficult due to the lack of a precise, yet universal means of categorizing religious/spiritual beliefs or worldviews. The individual's view of God is a measure that has the potential to codify religious/spiritual beliefs.

The purpose of this study is to examine whether a breast cancer survivor's view of God influences her religious coping strategies, depression, anxiety, stress, fear of recurrence, and psychological well-being. These variables were

selected based on literature that demonstrates relationships among them for breast cancer survivors. Utilization of religious coping strategies among breast cancer survivors to moderate stress can be found in both qualitative (Gall & Cornblat, 2002; Landmark, Strandmark, & Wahl, 2001) and quantitative studies (Boehmke & Dickerson, 2006; Morgan, Gaston-Johansson, & Mock, 2006; Zwingmann, Wirtz, Müller, Körber, & Murken, 2006). Anxiety, depression, and stress have long been associated with psychological adjustment among cancer patients (Deimling, Bowman, Sterns, Wagner, & Kahana, 2006; Montgomery et al., 2003; Nordin, Berglund, Glimelius, & Sjoden, 2001). Concerns of recurrence are frequently found among both short-term (Stanton, Danoff-Burg, & Huggins, 2002; Wonghongkul, Dechaprom, Phumivichuvate, & Losawatkul, 2006) and long-term (Deimling et al., 2006; Ferrell, Dow, Leigh, Ly, & Gulasekaram, 1995; Wonghongkul et al., 2006) breast cancer survivors. Psychological well-being (Carver et al., 2005; Urcuyo, Boyers, Carver, & Antoni, 2005) and its association with spirituality (Cotton, Levine, Fitzpatrick, Dold, & Targ, 1999; Manning-Walsh, 2005; Meraviglia, 2006) has been linked to positive, long-term survivorship. The purposes of this dissertation were to: 1) to identify religious coping strategies common to each of the four views of God; 2) To examine the relationship of psychological well-being (Ryff) and religious coping strategies; and 3) To examine differences in depression, anxiety, stress, fear of recurrence, and psychological well-being among women holding various views of God.

Conceptual Framework

Religious, spiritual, or existential questions are frequently raised by patients and survivors as a result of the diagnosis of cancer (Albaugh, 2003; Baker, 2003; Fabricatore, Handal, Rubio, & Gilner, 2004; Koenig, 2004). An individual's religious-spiritual-existential worldview is the primary driving force directing behaviors for most people. The ultimate concern of all human life is the search for the transcendent meaning or the striving to answer fundamental questions: Why am I here? Or, What is my purpose in life? (Archer, Collier, & Porpora, 2004; Frankl, 1978; Reker & Chamberlain, 2000). The search for

meaning and the pursuit of 'the ultimate' are universal themes, whether approached from a Western or Eastern philosophical or spiritual worldview (Baldacchino & Draper, 2001; Chan, Ng, Ho, & Chow, 2006; Emmons, 2000).

Worldviews are comprehensive views or philosophies of how human life interacts with the world or environment (Carvalho, 2006; Koltko-Rivera, 2004; McSherry & Cash, 2004; Vidal, 2008). Religion is a commonly adhered to worldview. For it influences or directs personal choices and for it requires or mandates specific behaviors. One of, or the, essential core beliefs of an individual is their idea of who or what God is. The basis for developing the view of God instrument focused on two measures of God's form and function was based on the philosophical underpinnings of Baruch Spinoza and Gottfried Leibniz. In the mid-17th century they engaged in a debate regarding God's nature where Spinoza posited a God who is nature and Leibniz who described God as a being who exists independent of the laws of nature and thinks, feels, judges, and interacts with His creation (Leibniz, 1960; Spinoza, 1960). Current views of God's autonomy or engagement with the world is grounded in this debate. The person, philosophy, or worldview that governs or drives each person's life decisions assumes the central focus of life and is surrounded by religious like behaviors that reinforce and define that object of devotion (Stark, 1999; Stark, Hamberg, & Miller, 2005). Whether the individual believes in a God that created the world or a God created to explain the world, each person has a view of 'the ultimate' and expresses devotion to it. For most 'the ultimate' is God in some form and for others 'the ultimate' is mankind and reason.

It is understood that individuals who associate themselves with organized or 'churched" religions follow a common creed or doctrine. Stark, Hamberg, and Miller (2005) defined 'unchurched' religions as those without formal congregations that can vary from having a specific creed to very individualized beliefs, but that influences and directs behaviors and the search for ultimate meaning in life. By definition, any group that identifies itself with a name ending in 'ism' can be considered a group with inherently religious beliefs and practices.

Merriam-Webster dictionary (2007) defines ism as “a distinctive doctrine, cause, or theory”. When individuals rally around a doctrine, cause, or theory behaviors arise that are associated with commonly accepted religious behaviors: guidelines for living, ‘good’ and ‘bad’ behaviors, devotion to the principles of the ism, and the desire to influence or convert others to their beliefs. These basic premises and common behaviors may be focused on a god or gods or a philosophy of life.

How individuals respond to the ultimate questions of life and the reason for existence within the context of disruption brought about by a cancer diagnosis can vary widely. Determination of how an individual might respond is often associated with personality characteristics. Personality psychology suggests that certain broad characteristics exist at some level in each person’s life and that within these characteristics there are personal differences (Carver & Scheier, 2004). Carver (2005) proposes a view of personality in which “individual lives are seen as organized around their goals” (p. 2603). Goals are viewed as overarching or conceptual such as life goals, and as more concrete or tangible such as daily activities to accomplish. He also establishes that goals are hierarchical with the core of the person being identified by a few conceptual goals and the other goals providing a pathway towards attainment of the core goals.

Emmons et al. (1998) discusses spiritual motivation within his research on personal strivings, where spiritual strivings (self-transcendent) are defined as “what a person is typically trying to do” (p.393). This generally corresponds with Carver’s overarching or conceptual goals, with Emmons’ personal strivings, or objectives, corresponding to the concrete or tangible goals. He found that spiritual strivings were more strongly related to well-being than other types of strivings, they maintained their strength even after controlling for intimacy strivings, and found an association with less conflict within the individual’s goal system – yielding a greater sense of goal integration. Another factor shaping actions along the pathway to achieving spiritual strivings may be how the individual views God or ‘the ultimate”.

View of God

Is there a way to assess religion and spirituality that is common to multiple religions and sects? Regardless of the god or gods worshipped, is there a perspective that reflects common behaviors and responses to the individual's god? If so, it would present a potential mediating factor for understanding the relationship of faith and health. How an individual views the character and behavior of God, how that individual defines him/her, may be an important method through which resultant psycho-social-spiritual responses to existential crises can be classified and described.

An individual's view of God as a variable that is influential in determining psycho-spiritual concepts and outward behaviors is a relatively new endeavor (Bader, 2007; Bader & Froese, 2005; Froese & Bader, 2007). The 2006 Baylor Religion Survey (n=1,721) was designed to find in-depth information in order to better understand religion in America (Bader et al., 2006). The authors believe that denominational affiliation is less descriptive than broader religious tradition categories, such as: unaffiliated, Catholic, Black Protestant, Evangelical Protestant, Mainline Protestant, Jewish, and other. However, when these categories were compared to the study subjects' self-descriptions of religious identity, there were many discrepancies between the two measures. Looking beyond affiliation to the combined impact of affiliation and behavior, the Image of God Scale was developed from 29 questions regarding God's character and behavior. A factor analysis identified two significant and distinct dimensions of belief in God that were identified as significantly related to increased religious involvement, conservative religious beliefs, and political differences. (Froese & Bader):

1) **God's level of engagement** – the extent to which individuals believe that God is directly involved in worldly and personal affairs.

2) **God's level of anger** – the extent to which individuals believe that God is angered by human sins and tends towards punishing, severe, and wrathful characteristics.

Based on these two dimensions, four types of believers were identified:

Authoritarian: believe God is highly involved in world affairs and in their lives, helps them in decision-making, responsible for global events – good and bad, and capable of punishing those who are unfaithful or ungodly. (31.4% of sample)

Benevolent: believe God is highly involved in their personal lives, less likely to be angry and act in wrathful ways, is a force of positive influence, and is less willing to condemn or punish individuals. (23.0% of sample)

Critical: believe God is not active in the world, views the current state of the world unfavorably, and that God's displeasure and divine justice will be experienced in another life. (16.0% of sample)

Distant: believe God is not active in the world, not particularly angry, a cosmic force which set laws of nature in motion, and doesn't "do" anything in the current world. (24.4% of sample)

Atheists: certain that God does not exist and have no place for the supernatural in their worldview (Bader et al., 2006). (5.2% of sample)

Coping and Psychological Well-Being

Research on religious coping strategies has been focused largely on non-cancer populations: primarily college-aged and older adults – both healthy and hospitalized. Within the cancer population, religious coping has often been measured as questions within general measures of coping. Studies demonstrate modest relationships between religious coping strategies and measures of psychological well-being. A meta-analysis examined situation-specific religious coping strategies and their associations with positive or negative psychological adjustment (Ano & Vasconcelles, 2005). Findings demonstrated moderately

significant relationships between a) positive religious coping strategies as described by Pargament, Koenig, & Perez (2000) and positive psychological well-being; b) a modest inverse relationship with negative psychological well-being; and c) negative religious coping strategies and negative psychological well-being. The original classification into positive and negative religious coping strategies was based on data that suggested an association between the specific coping strategies and increased or decreased distress (Pargament et al., 1998). In later writings Pargament uses the terminology of spiritual conservation and spiritual struggle (Pargament, 2007), which will be used instead of positive (conservation) and negative (struggle) coping throughout this dissertation.

A review of empirical data on the role of religion and religious coping suggests that they are unique phenomena. In other words, after accounting for other coping mechanisms, social, and psychological variables, religious appraisals of the meaning of a situation contributed in unique and significant ways to predicting psychological variables (Pargament et al., 2005). What remains uncertain is the relationship between religious coping strategies and psychological adjustment or well-being in persons who have been recently diagnosed with a potentially life-threatening diagnosis.

A cancer diagnosis is often perceived as life-threatening. In reality, it may be a life-threatening diagnosis, a serious chronic condition, or a specific, localized problem depending on the type of cancer, stage and grade at diagnosis, and available treatments. With this wide range of disease severity there is also a wide range of potentially positive and negative psychological effects. According to the most recent Institute of Medicine (2007) report executive summary, “attending to psychosocial need should be an integral part of quality cancer care.” This becomes even more important as the number of cancer survivors continue to increase. The American Cancer Society reports, as of 2003, that there are 10.5 million cancer survivors in the United States (American Cancer Society, 2007). This reflects an increase in the 5-year survivor rate to 66% (1996-2002) from 51% (1975-1977) that number does not

reflect some significant new treatment modalities developed in the last decade. Barg et al. (2007) compared unmet psychosocial needs in cancer survivors surveyed in 2005 with those noted in 1986 by one of the current authors. They found that unmet psychosocial needs remain high, with approximately two-thirds reporting at least one unmet need.

Negative psychological outcomes have been consistently documented in the cancer literature. (Brown, Levy, Rosberger, & Edgar, 2003; Deimling et al., 2006; Kissane et al., 2004) Depression and anxiety are the two most frequently identified negative psychological outcomes, noted as somewhere in the 30-70% range in these studies. Stress is a frequently reported state for cancer patients at every stage of the disease (Bowman, Deimling, Smerglia, Sage, & Kahana, 2003; Kreitler, Peleg, & Ehrenfeld, 2007; Park, 2005). Stressful events may include: diagnosis, treatment decisions, effects of the treatments, uncertainty regarding prognosis, and family issues. The impact of life events is based on the individuals' perception of the event – just part of living or stressful, where the event is unexpected and/or life-altering (Bowman et al., 2003; Kreitler et al., 2007). The role of negative psychological states on the development of cancer (Garssen, 2004; McKenna, Zevon, Corn, & Rounds, 1999) and on cancer recurrence (Petticrew, Bell, & Hunter, 2002) has not been substantiated by the literature over the past 20-30 years. Recently, a few studies have described an association between psychological distress and cancer development and progression (Antoni et al., 2006) and decreased survival (Brown et al., 2003). A number of recent studies have demonstrated an increase in anxiety and depression in cancer patients during the initial treatment/post-treatment phase that abates as the survivor reintegrates into their 'old lives' (Stanton et al., 2002; Stanton et al., 2005). The question arises – are the most important psychological factors in the course of the disease and survivorship negative factors?

Concern about recurrence is a continuing theme in the survivorship literature (Baker, Denniston, Smith, & West, 2005; Bowman et al., 2003; Deimling et al., 2006; Stanton et al., 2005). The uncertainty of "being cured" or not,

inherent in cancer survivorship, is a continuing source of stress for a portion of survivors. The reported incidence of fear of disease recurrence is between 31% for long-term and 68% for short-term survivors (Baker et al., 2005; Deimling et al.). Minimizing the impact of a chronic stressor such as the fear of recurrence is a major goal to improve life as a cancer survivor (Stanton et al.). How a person appraises the uncertainty of recurrence is affected by their beliefs in God, fate, and their own control of the situation (Bowman et al.; Folkman, 1997; Thune-Boyle, Stygall, Keshtgar, & Newman, 2006).

The current trend in psychosocial oncology is toward a focus on the role of positive psychological well-being in cancer survivorship. Aspinwall and MacNamara (2005) identify four myths, or assumptions, that have been associated with positive beliefs and emotions and adjustment to cancer treatment and survival: 1) positive emotions after adversity are absent or inappropriate or pathologic; 2) positive beliefs lead people to ignore negative realties and thereby compromise coping and adjustment: 3) positive beliefs and emotions lead people to see things as more favorable than they really are and to make poor decisions; and 4) positive beliefs and emotions are pleasant, but have few lasting effects. They refute each of these assumptions with a review of pertinent studies and conclude that positive beliefs and emotions are common, assist in better understanding negative information, and do not result in poorer coping.

A focus on positive adjustment or psychological well-being, rather than negative consequences, can help to increase our understanding of traits, behaviors, life goals and motivations that can improve cancer survivorship and resilience. Bower et al. (2005) studied breast cancer survivors longitudinally and found that a sense of vulnerability was associated with negative affect and a sense of meaning was associated with positive affect. They found that levels of vulnerability and meaning varied based on socio-economic status and religiosity. Many studies have noted associations between religious/spiritual well-being (Cotton et al., 1999; Gall, 2004; Johnson Vickberg et al., 2001), optimism (Friedman et al., 2006; Schou, Ekeberg, & Ruland, 2005; Yu, Fielding, & Chan,

2003), and focusing on meaning (Johnson Vickberg et al.; Lee, Cohen, Edgar, Laizner, & Gagnon, 2004) and positive adjustment to cancer. The question examined in this study was whether the individual's view of God affects how religious coping strategies used to manage the threat of the cancer diagnosis through spiritual conservation or struggle impact psychological outcomes.

CHAPTER TWO

Synopsis

Title. Relationships between religion/spirituality (R/S) and psychological adjustment in breast cancer survivors: a systematic review.

Aim. This paper is a report of a systematic review conducted to critically analyze and synthesize the relationships between psychological adjustment and religion/spirituality (R/S) in women with breast cancer.

Background. A diagnosis of cancer is a life-changing event for most people. The possibility of disease recurrence, distant metastasis, short- or long-term side effects, or mortality can have an effect on survivors' psychological adjustment. R/S is often seen as a major factor impacting psychological adjustment to a cancer diagnosis.

Data sources. MEDLINE, CINAHL, and PsycINFO databases were searched for the period January 1985 – December 2008. The search terms *religi*(religious/religion), spiritu*(spiritual/spirituality), breast cancer, psychological, and outcomes* were searched for separately and in combination.

Review Methods. Nineteen papers met the search criteria and were analyzed. Findings that reported on relationships or connections between psychological adjustment and R/S were recorded and organized into themes.

Results. Three main themes were identified: 1) R/S domains and psychological adjustment; 2) dynamics of R/S conservation and struggle; and 3) reframing the cancer experience.

Conclusion. Relationships do exist between psychological adjustment and R/S issues. Studies are beginning to investigate directionality, and mediation and moderation effects of R/S on psychological adjustment. Variations in defining and measuring R/S cause difficulties in identifying its significance and influence on psychological adjustment.

Summary Statement

What is already known about this topic

- Religion/spirituality is a common resource for responding to a cancer diagnosis and cancer survivorship.
- There is no consensus on the definitions of religion/spirituality or on the role that it has in psychological adjustment to cancer.
- Religion/spirituality can be measured in a number of ways: affiliation, practices, well-being, and coping styles.

What this paper adds

- Report of initial data regarding directionality, and mediation and moderation effects of R/S on psychological adjustment.
- Identification of coping styles and behaviors, religious/spiritual and non-religious, that are positively associated with psychological adjustment.

Implications for practice/research/education

- What has not been determined is whether coping styles are inherent or learned. If they are inherent, can they be learned? If they can be learned, what is the best way to convey the information?
- What influences the coping styles used? Personality traits? Perception of God? Future research directed to understanding who uses or why different coping styles are used in response to a similar crisis is an important next step.

Keywords. Systematic review, literature review, breast cancer, religion, spirituality, psychological adjustment, outcomes

Introduction

The number of cancer survivors in the United States has increased dramatically in the past 30 years, from 3 million in 1971 to 10.8 million in 2004 (Rowland & Bellizzi, 2008). Because of high incidence rates and improved treatment women with breast cancer are the largest group of survivors (23%) and most live well beyond 5 years post-diagnosis (Rowland & Bellizzi). Religion/spirituality (R/S) and psychological factors are two key components related to the quality of the survivorship period (Ano & Vasconcelles, 2005; Carone & Barone, 2001; Ferrell, Paice, & Koczywas, 2008; Gibson & Hendricks, 2006; Lin & Bauer-Wu, 2003; McCabe & Jacobs, 2008). Despite the explosion in the literature related to religion/spirituality, there is no consensus on the definitions of religion/spirituality or on the role that it has in psychological adjustment to cancer (Gall & Grant, 2005).

Religion/spirituality has been identified as a frequent resource employed in adjusting to a diagnosis of breast cancer by a large majority of women (Albaugh, 2003; Feher & Maly, 1999; Ferrell et al., 1995; Jim, Richardson, Golden-Kreutz, & Andersen, 2006; Meraviglia, 2006; Zwingmann et al., 2006). Despite literature-based evidence, psychological or quality of life based studies regarding adjustment to cancer, do not routinely examine religious/spiritual concepts (Efficace & Marrone, 2002). None the less, survivorship and palliative care group guidelines and reports emphasize the importance of religion/spirituality and psychological adjustment (Ferrell et al., 2008; Institute of Medicine, 2007).

Religion/spirituality has obtained recognition as an important piece of the puzzle employed in adjusting to cancer and cancer survivorship. The specific aspects of religion/spirituality that have the greatest impact on adjustment have not yet been determined. A standardized set of measures and a viable means for grouping people needs to be developed. Before a standard can be established, current data needs to be examined and analyzed to identify areas where more research is needed to clarify concepts. This review is designed to identify what is currently known about the relationships between religion/spirituality and psychological adjustment.

The Review

Aim

The aim of the review was to critically analyze and synthesize the relationships between psychological adjustment and religion/spirituality (R/S) in women with breast cancer.

Design

A systematic literature review (Wood, 2003) of existing research examining the relationships between religion/spirituality and psychological adjustment in women with breast cancer. The term, psychological adjustment, as opposed to specific concepts such as depression and anxiety, was purposely used to define a broader concept.

Search methods

Electronic searches were run using MEDLINE, CINAHL, and PsycINFO databases. The search included the period January 1985 – December 2008 and was limited to full papers published in English. Key terms searched separately and in combination included *religi*(religious/religion), spiritu*(spiritual/spirituality), breast cancer, psychological, and outcomes*. In addition, reference lists were reviewed and further papers were identified. Inclusion criteria:

- Full text papers, qualitative, quantitative, or mixed methods
- Statistical testing designed to identify relationships between R/S and psychological adjustment
- Population only women with breast cancer

Exclusion criteria:

- Studies with mixed cancer population

Search outcome

A total of 96 publications related to religion/spirituality and psychological adjustment were reviewed. The majority of the papers (*n* = 73) described the incidence and magnitude of R/S and psychological adjustment, without examining relationships between the concepts. Review of the full text was performed for all studies. Twenty-three studies met all inclusion criteria and were included in the review. The majority of the studies were quantitative (*n* = 17), 6

were qualitative, and one was mixed method. Most studies had cross-sectional designs.

Quality appraisal

Studies were appraised utilizing the Appraisal Tools from the National Health Service for qualitative and randomized control trials (National Health Service, 2009). In addition, all studies were evaluated for testing to identify relationships. Measures used in the studies varied greatly.

Data abstraction

Studies included were: qualitative (5), quantitative (17), and mixed method (1). The most common methodology was cross-sectional with a convenience sample. Sample sizes ranged from 10 to 230. The majority of studies were from the US, with the exception of three studies from Chile, Germany, and Norway. Descriptive data for the 23 studies are found in Table 2.1.

Synthesis

Analysis of study findings was conducted to discover recurring outcomes and themes (Galvan, 2006). Findings were reviewed and labeled, then classified into similar groupings, and finally reduced to three core themes.

Results

The results include an overview of relationships between R/S domains and psychological adjustment, the dynamics of R/S conservation and struggle, and reframing of the cancer experience. Receipt of a cancer diagnosis and transition to life as a cancer survivor has been described as a life-changing experience (Boehmke & Dickerson, 2006; Evangelista, Doering, & Dracup, 2003). A crisis event, such as a cancer diagnosis, often stimulates introspection and review of core principles in an individual's life. This process of life-review concludes with re-affirmation or alterations of core principles (Ferrell et al., 1995; Landmark et al., 2001; Lang, Floyd, & Beine, 2000). A primary means by which one understands the world has long been through religion/spirituality. Core principles are influenced by how one views the world (Emmons, 2005; Emmons &

Paloutzian, 2003; McAdams, 1995). Psychological adjustment is often affected when core principles are challenged.

R/S domains and psychological adjustment

Generally, R/S beliefs and principles are associated with psychological well-being or decreased distress. All of the qualitative studies reported that God/religion/spirituality was important to a large majority of the women. Half of the studies (12/23) reported a positive relationship between spirituality, religion, religious coping and psychological well-being. Equivocal findings were reported in 7 studies and both positive and negative outcomes in psychological adjustment were associated with spirituality, religion, or religious coping in the remaining 4 studies. No study reported only negative psychological adjustment associated with spirituality, religion, or religious coping.

Differences in psychological outcomes associated with religion, spirituality, or religious coping may be related to the methodology or instrument used to measure the R/S construct. One hundred and twenty-six measures of R/S were collected and reviewed in 1999 (Hill & Hood, 1999). New measures continue to be developed, indicating that there are many specific concepts within the overall construct and/or that current measures are inadequate. In this review, multiple measures were used with mixed results. Single item measures as part of a larger measure or as an independent question were used in approximately one-third of the studies: item within the COPE instrument (Carver et al., 1993; Jim et al., 2006; Stanton, et al., 2002); within the Post-Traumatic Growth Index (Cordova, Cunningham, Carlson, & Andrykowski, 2001); and independent question (Bloom, Stewart, Subo Chang, & Banks, 2004; Romero et al., 2006). Three studies assessed R/S by measuring religious coping (Gall, de Renart, & Boonstra, 2000; Urcuyo, et al., 2005; Zwingmann, Muller, Korber, & Murken, 2008). Five studies used the FACIT-Sp and 4 of these also used a second measure of religion/spirituality: two included the Principles of Living Scale (Cotton et al., 1999; Targ & Levine, 2002), and one each included the BriefRCOPE (Morgan et al., 2006) and the Religious Support Scale (Manning-Walsh, 2005).

Three longitudinal studies were included in the review, giving some indication of the influence of or on religion/spirituality in relation to psychological adjustment. All three found religion/spirituality to be positively associated with psychological well-being (Bloom et al., 2004; Carver et al., 1993; Stanton et al., 2002). Carver (1993) reported that the effect of optimism on distress was mediated by coping style. Specifically, acceptance, use of humor, and positive reframing were the coping styles associated with decreased distress and religion. Stanton (2002) found that turning to religion was not a significant factor in predicting distress, well-being, or fear of recurrence, however it's interaction with hope was significant. Less hopeful women who strongly turned to religion had more positive adjustment. Conversely, women with a lot of hope who strongly turned to religion demonstrated a decrease in adjustment. The third study used religious behaviors, attendance at services and daily prayer, as measures of religion and found no changes in mental well-being over 5 years (Bloom et al.).

Dynamics of R/S conservation and struggle

Religious/spiritual coping styles and use religious practices for coping with the crisis of cancer was the focus of 13 studies in this review. Religious activities associated with psychological well-being or decreased distress included: prayer, attendance at religious services, scripture reading, meditation, and visualization (Bloom et al., 2004; Carver et al., 1993; Choumanova, Wanat, Barrett, & Koopman, 2006; Gall & Cornblat, 2002; Meraviglia, 2006). One study used the Religious/Spiritual Coping (RCOPE) measure which demonstrated associations with anxiety: increased by negative religious coping strategies and decreased by positive religious coping strategies (Zwingmann et al., 2008). Coping styles associated with religion/spirituality and psychological outcomes included: trust in God, belief in the afterlife (Shaw et al., 2007), God viewed as benevolent (Gall et al., 2000), acceptance and benefit finding (Jim et al., 2006; Urcuyo et al., 2005), turning to religion (Stanton et al., 2002), and religious discontent, helplessness/hopelessness, anxious preoccupation and cognitive avoidance (Cotton et al., 1999).

Social support or relationship with God and others in relation to psychological adjustment was reported in 10 studies. Three qualitative (Choumanova et al., 2006; Feher & Maly, 1999; Gall & Cornblat, 2002) and three quantitative studies (Manning-Walsh, 2005; Meraviglia, 2006; Wildes, Miller, San Miguel de Majors, & Ramirez, 2008) reported a positive association between religion/spirituality and social support and improved relationships with God and others. Mixed outcomes, no differences or positive and negative, were described in two qualitative studies (Coward & Kahn, 2004; Landmark et al., 2001) and two quantitative studies (Bauer-Wu & Farran, 2005; Cordova et al., 2001).

Reframing of the cancer experience

Positive reframing and benefit finding as effective means for adjusting well psychologically to cancer was reported in seven studies. Positive reframing was described as re-examination of life values (Coward & Kahn, 2004), increased meaning in life (Feher & Maly, 1999; Meraviglia, 2006), and a view of the cancer experience as a source of blessing or benefit (Carver et al., 1993; Gall & Cornblat, 2002; Jim et al., 2006; Shaw et al., 2007; Urcuyo et al., 2005). In each study, positive reframing resulted in increased psychological well-being or decreased distress.

Discussion

Limitations and strengths of the evidence

In this review, only studies of women with breast cancer were analyzed. Only studies that reported on the association between religion/spirituality and psychological adjustment were included. Studies that measured either of these concepts, but reported independent results were not included. This narrow focus has distinct limitations and strengths. One-quarter of the studies were qualitative and were a small sample size (<20). These studies identified the existence and importance of religion/spirituality for women with breast cancer and whether it was a helpful resource. The remaining studies were split into those of medium sample size (20 – 100) and of large sample size (>100; largest 230). Nineteen

studies were quantitative and the vast majority was cross-sectional with three longitudinal and one randomized control trial included in the review. Measures of religion/spirituality varied greatly. Single-item responses, use of proxies for religion/spirituality such as church attendance/prayer, and separate instruments measuring religion/spirituality limited overall conclusions since the measure of comparison was not consistent.

A primary strength of the narrow focus of this review is that the population studied was quite homogenous. The women studied experienced the same basic diagnosis at similar life stages. Of course there was a wide variety in the specifics of the diagnosis, the type of treatment, and personal life situations however, across the spectrum of cancer diagnoses this was a homogeneous group. Synthesis of data derived from heterogeneous measures of religion/spirituality and psychological adjustment permitted drawing pertinent conclusions for this specific population.

Religion/spirituality and psychological adjustment in breast cancer survivors

Religion/spirituality is associated with psychological adjustment for breast cancer survivors. The data, although identifying primarily positive associations, is not currently able to recognize what 'it' is in religion/spirituality that accounts for this association. Key religious/spiritual dimensions or elements identified in this review are religious/spiritual activities and coping strategies, non-religious coping strategies positively or negatively associated with religion/spirituality, social support and relationships with God and others, and benefit finding or reframing of the cancer experience.

When and how religious/spiritual factors affect psychological adjustment for breast cancer survivors is not clearly understood. The diagnosis of cancer is experienced as a crisis by many. Studies of psychological factors in breast cancer often measure perceived stress or post-traumatic growth (Bauer-Wu & Farran, 2005; Cordova et al., 2001; Kreitler et al., 2007; Stanton et al., 2000). Religion/spirituality is a common resource people turn to in times of crisis (Feher

& Maly, 1999; Henri, 2007; Kahn & Greene, 2004; McGrath, 2002; Pargament et al., 1998). When a crisis of life-threatening magnitude, such as a cancer diagnosis, occurs personal coping resources are tested. Religious/spiritual response to crisis or threat is typically seen as religious/spiritual conservation or struggle (Pargament, 2007).

Religious/spiritual beliefs resulted in feelings of support, anger, or ambivalence which affected psychological adjustment (Landmark et al., 2001). Religious/spiritual struggle was associated with decreased psychological well-being or increased distress (Gall et al., 2000; Morgan et al., 2006; Zwingmann et al., 2008). In the same studies, religious/spiritual conservation was associated with increased psychological well-being or decreased distress. Screening women to identify those experiencing religious struggles and subsequent referral to religious leaders or to counselors could reduce the negative psychological impact of a cancer diagnosis.

Conclusion

Relationships do exist between psychological adjustment and religion/spirituality in breast cancer survivors. Studies have begun to investigate directionality, and mediation and moderation effects of religion/spirituality on psychological adjustment. Variations in defining and measuring religion/spirituality cause difficulties in identifying its significance and influence on psychological adjustment.

Coping styles and behaviors, religious/spiritual and non-religious, positively associated with psychological adjustment have been identified. What has not been determined is whether these coping styles are inherent or learned. If they are inherent, can they be learned? If they can be learned, what is the best way to convey the information? What influences the coping styles used? Personality traits? Perception of God? Future research directed to understanding who or why different coping styles are used in response to a similar crisis is an important next step.

Conceptual or theoretical frameworks are extremely important in studies designed to investigate potential relationships between various concepts. Careful choice of instruments used to measure key concepts and the rationale behind the choice would be beneficial in understanding and interpreting study results. Existence of a relationship between religion/spirituality and psychological adjustment in breast cancer survivors has been recognized. The next step in research is to investigate the specific who, what, and why of religion/spirituality that affects psychological adjustment. Questions yet to be answered include: 1) Is there a religiously/spiritually meaningful way to classify a person that is independent of gender, race, religion, or disease/crisis type?; 2) What are the key elements of religion/spirituality that significantly affect psychological adjustment?; and 3) Why do particular coping styles result in psychological well-being for some and psychological distress for others?

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Table 2.1. Characteristics of the studies included in the review

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Qualitative				
Choumanova et al., (2006)	To examine how used R/S to cope with illness; how illness changed roles of R/S; and views of whether and how faith can help recuperate.	*n* = 27; Chilean women recruited from a clinic. Immediately post-treatment.	Qualitative, constant comparative method	1. God as resource for healing/guidance. 2. ↓ anxiety through prayer. 3. R/S provided social support and meaning. 4. Strengthened will to live.
Coward and Kahn (2004)	To describe the experience of restoring and maintaining spiritual equilibrium.	*n* = 10; urban breast cancer resource center. Newly diagnosed women. 5 – attended support group intervention; 5 – control group.	Qualitative, phenomenological, longitudinal design. Three separate interviews.	1. No real differences between groups – support found in the experimental group was found by the control group with other patients. 2. Spiritual disequilibrium characterized by fear of dying and sense of aloneness. 3. Disequilibrium initiated an outward reach to obtain information and support and towards advocacy and support of others; and an inward reach to reexamine life values.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Feher and Maly (1999)	To identify and examine R/S coping strategies.	*n* = 33; women ≥ 65 years newly diagnosed. Convenience sample from 8 community and hospital-based sites	Qualitative, exploratory, descriptive study. Structured questionnaire.	1. R/S belief either ↑ or stayed stable. 2. R/S faith provided emotional support (91%). 3. R/S faith provided social support (70%). 4. R/S faith provided the ability to make meaning in everyday life (64%).

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Gall and Cornblat (2002)	To describe the nature of R/S factors and to understand the role of these factors in adjustment – meaning-making, life attitudes, and personal growth.	*n* = 39; recruited by newspaper advertisement and mention in breast cancer newsletter.	Qualitative phenomenological approach of written responses.	1. Relationship with higher power/God important and active in adjustment (80%) – support and comfort, and active/collaborative relationship. Few with ambivalent/negative relationship (12%, 5/39) only 2 were as result of issues related to the breast cancer diagnosis. 2. R/S coping strategies used by 35/39 - prayer, church attendance, scripture readings, carrying of medals, meditation, and visualization used. 3. R/S was a source of social support (20/39), meaning (25/39), and life affirmation/growth (20/39). 4. Belief in God – allowed reframing the cancer from a crisis to a blessing or gift.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Landmark et al. (2001)	To describe living with newly diagnosed breast cancer.	*n* = 10; Norwegian women recruited from an outpatient clinic	Qualitative, grounded theory via structured interviews.	1. Core category of "The Will to Live" with subheadings of: different levels of life expectation; the fight against death; life related to the future; religious beliefs and doubts; and increased awareness of values in life. 2. Found R/S belief to provide support, anger, or ambivalence towards psychological adjustment to cancer.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Mixed Methods				
Shaw et al. (2007)	To examine how religious disclosure was associated with psychosocial health outcomes.	*n* = 97; active participants in the Comprehensive Health Enhancement Support System (CHESS)	Quantitative analysis – hierarchical ordinary least squares (OLS). Qualitative analysis – exploratory, descriptive.	1. Higher R/S expression predicted ↓ negative emotions, ↑ functional well-being, ↑ perceived health self-efficacy. 2. Higher R/S expression was not associated with breast cancer related concerns, emotional well-being, social support, or positive reframing. 3. R/S coping mechanisms used: putting trust in God regarding illness; believing in an afterlife → less afraid of death; finding blessings in life; and appraising the cancer experience in a constructive religious light.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Quantitative				
Bauer-Wu & Ferran (2005)	To compare and examine relationships among meaning in life, spirituality, perceived stress, and psychological distress.	*n* = 78; Breast cancer survivors (BCS) (*n* = 39) and healthy women (HW) (*n* = 39) from academic medical center - poster/newsletter and personal communication	Cross-sectional, 2-group design with unmatched convenience sample of BCS and healthy women. Self-completed questionnaires (6): personal meaning index (PMI), existential vacuum (EV), ladder of life index (LOLIPRES – meaning at present), index of core spiritual experiences (INSPIRIT), perceived stress scale (PSS), and Brief POMS.	1. BCS without children had ↓ PMI, LOLIPRES, and INSPIRIT scores and ↑ EV, PSS, and POMS scores. 2. BCS with children and HW with/without children had similar scores on all measures. 3. Spirituality was associated with LOLIPRES, PMI, and EV; and was not associated with POMS and PSS for BCS and HW.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Bloom et al. (2004)	To examine changes over time in QOL concerns (including spirituality) and their effect on changes in physical and emotional well-being.	*n* = 185; subset of young (≤ 50 years) breast cancer survivors 5-years post-diagnosis from original study completed when newly diagnosed.	Longitudinal, cross-sectional study. Measures - Quality of life (QOL); physical – from previous study; Rosenberg self-esteem scale(RSS); Schain Breast Cancer Problems Checklist; Berkman-Syme Social Network Index (SNI).	1. Religion significant for about half the population. 2. No significant changes in physical or mental well-being over five years based on frequent attendance at religious services or on daily prayer.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Carver et al. (1993)	To examine effects of coping reactions on well-being in response to crisis.	*n* = 59; clinic patients with Stage I or II breast cancer	Longitudinal, interview completion of questionnaires. Measures –Life Orientation Test (LOT); COPE; and Profile of Mood States (POMS).	1. Optimism effect on distress mediated by coping style. 2. No correlation between optimism or distress and religion. 3. Religion + associated with active coping, suppression of competing activities, planning, positive reframing, acceptance, and use of humor. 4. Acceptance, use of humor, and positive reframing are associated with ↓ distress.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Cordova et al. (2001)	To compare depressive symptoms, well-being, and posttraumatic growth in women with breast cancer (BC) and healthy women (HW); To explore the relationship between posttraumatic growth, distress, and well-being in BC survivors.	*n* = 70 (BC) and 70 age and education matched (HW) from a University clinic and newspaper ads.	Cross-sectional. Measures –Duke-UNC Functional Social support Questionnaire (DUKE-SSQ); Center for Epidemiologic Studies (CES-D); Ryff's Well-being Scales (Ryff); Cancer Patient Behavior Scale (CPBS); Posttraumatic Growth Inventory (PTGI); Impact of Event Scale (IES); Talking about Cancer – single item; Cancer as a traumatic stressor – 2 questions.	1. BC survivors had ↑ scores over HW for PTGI, spiritual changes, relations to others, and appreciation of life. 2. No difference between groups for depression and Ryff's Well-being Scales. 3. For BC survivors, PTGI was not related to Ryff, CES-D, IES, or social support. 4. ↑'d PTG associated with more prior talking about cancer, cancer as a traumatic stressor, longer time since diagnosis, and higher income.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Cotton et al. (1999)	To examine the relationships among spiritual well-being (SPWB), quality of life (QOL), and psychological adjustment.	*n* = 142; participating in larger study comparing the efficacy of 2 psychosocial support programs.	Cross-sectional. Measures – Functional Assessment of Chronic Illness Therapy – Breast (FACIT-B) and spiritual well-being scale – (FACIT – Sp); Principles of Living Survey (PLS); and Mini-Mental Adjustment to Cancer (Mini-MAC).	1. Active religious practice was associates with SPWB, but was not associated with QOL. 2. SPWB was + associated with QOL, fighting spirit, and fatalism, and spirituality (PLS). 3. SPWB was – associated with helplessness/hopelessness, anxious preoccupation, and cognitive avoidance. 4. Spirituality (PLS – spiritual practices, spiritual growth, and embracing life's fullness) was + associated with helplessness/hopelessness and anxious preoccupation, - associated with fighting spirit and fatalism, and had no association with cognitive avoidance. 5. SPWB accounted for a small but significant variance in QOL controlling for demographics, disease variables, and the five psychological adjustment styles. Spirituality's (PLS) contribution was not significant.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Gall et al. (2000)	To explore the role of religious resources in long-term adjustment.	*n* = 32; diagnosed in past 5 years recruited from newspaper and breast cancer specific newsletter.	Cross-sectional. Measures –God Image Scale (GIS); Religious Coping Activities Scales (RCAS); Indiscriminate Pro-Religiousness Scale (IPRS); Brief Symptom Inventory (BSI); Life Satisfaction Questionnaire (LSQ); Rosenberg Self-Esteem Scale (RSS); Life Orientation Test (LOT); and Locus of Control (LOC).	1. No difference in well-being for Catholics vs. Protestants. 2. Frequency of church attendance positively correlated with optimism. 3. Benevolent image of God was significantly, negatively correlated with psychological distress. 4. Religious discontent significantly, negatively correlated with life satisfaction and self-esteem and positively with psychological distress. 5. Accounting for indiscriminate pro-religiousness, there was a positive association between acceptance, religious discontent, optimism and self-esteem. 6. Benevolent view of God accounted for 14% of the variance in psychological distress. 7. Self-esteem and religious discontent accounted for 16% of the variance in life satisfaction. 8. Controlling for pro-religiousness, religious discontent accounted for 12% of the variance in optimism and 6% of the variance in self-esteem.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Jim et al. (2006)	To examine the impact of a cancer diagnosis on meaning in life.	*n* = 167; initially recruited post-surgery and pre-adjuvant therapy from university and community practices.	Cross-sectional study, mid-point or later, within a 5-year longitudinal study. Measures –COPE; Meaning in Life Scale (MiLS); Center for Epidemiological Studies Depression Scale (CES-D); and Impact of Events Scale (IES).	1. Benefits of spirituality, measured within the MiLS, was – correlated to depression and cancer-related stress. 2. Religious coping was moderately, + correlated with meaning in life, benefits of spirituality, and acceptance/positive reinterpretation. 3. Religious coping significantly predicted variance in total meaning in life; however, all of the variance was accounted for in the benefits of spirituality subscale. 4. There was no significant variance in the harmony and peace; life perspective, purpose, and goals; or confusion and lessened meaning subscales.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Manning-Walsh (2004)	To examine relationships between symptom distress and quality of life when religious support and personal support were considered as mediating variables.	*n* = 100; 1-24 months post-surgery	Cross-sectional, mailed survey. Measures – Symptom Distress Scale (SDS); Functional Assessment of Cancer Therapy – Breast (FACT-B) and the 12-item piece from the FACIT-Sp; and Religious Support Scale (RSS); personal support – used the RSS with family/friends substituted for "people in your congregation".	1. Spiritual well-being was moderately + correlated with QOL subscales – physical, social/family, emotional, functional, and breast specific. 2. There was no significant relationship between religious support and QOL. 3. There was a moderate relationship between personal support and QOL.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Manning-Walsh (2005)	To examine relationships between symptom distress and psychospiritual well-being.	*n* = 100; 1-24 months post-surgery	Cross-sectional, mailed survey. Measures – Symptom Distress Scale (SDS); Functional Assessment of Cancer Therapy – Breast (FACT-B) and the 12-item piece from the FACIT-Sp.	1. Age and symptom distress accounted for 23% of the variance in psychospiritual well-being, however the primary effect was from symptom distress.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Meraviglia (2006)	To examine the effects of spirituality (meaning in life and prayer) on well-being.	*n* = 84; rural and urban women in three groups: dx < 1 year; within 1-5 years; and > 5 years.	Descriptive, correlational, cross-sectional. Measures –Life Attitude Profile-Revised (LAP-R); Adapted Prayer Scale (APS); Symptom Distress Scale (SDS); and Index of Well-Being (IWB).	1. Higher psychological well-being in past 30 day was related to lower stages of breast cancer, higher functional status, and closer relationships with God. 2. Women reporting more meaning in life were older, had better functional status, reported closer relationships with God, and had a > satisfaction with their income. 3. Women with higher prayer scale scores reported closer relationships with God, lower educational levels, and less income to meet needs. 4. Meaning in life and the personal meaning index were + related to psychological well-being and – related to symptom distress. 5. Prayer was + related to psychological well-being. 6. Meaning in life mediated the relationship between functional status and symptom distress.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Morgan et al. (2006)	To explore spiritual well-being, religious coping, and quality of life.	*n* = 11; African-American from hospital and community practices	Descriptive, cross-sectional design. Measures – BriefRCOPE; Functional Assessment of Cancer Therapy – Breast (FACT-B) and the 12-item Spiritual Well-being scale.	1. The BriefRCOPE negative subscale was moderately, negatively correlated with physical well-being. 2. The Brief RCOPE positive subscale had no correlations with the FACT-B.
Romero et al. (2006)	To examine whether a self-forgiving attitude and spirituality were related to psychological adjustment.	*n* = 81; receiving treatment at medical oncology clinic.	Cross-sectional. Measures – Forgiveness of Self (FOS); single item for spirituality; Profile of Mood State (POMS); and Functional Assessment of Chronic Illness Therapy – General (FACIT-G).	1. Spirituality was significantly, positively associated with age and quality of life and negatively with mood disturbance. 2. Spirituality and a self-forgiving attitude accounted for 38% of the variance in mood disturbance and quality of life – each was a unique predictor.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Stanton et al. (2002)	To examine the ability of situation-specific coping strategies and hope in predicting psychological adjustment over 1 year.	*n* = 70; newly diagnosed stage I or II breast cancer from 2 hospital sites.	Longitudinal. Questionnaires completed preoperatively (Time 1), at 3 months (Time 2), and 12 months (Time 3). Measures: Time 1 only– Hope Scale; COPE. Times 1-3 Profile of Mood States (POMS). Time 2 & 3 - Fear of Recurrence Scale.	1. Over all 3 time points, POMS Distress continually ↓'d, and POMS Vigor continually ↑'d. 2. Turning to religion was not statistically significant in predicting POMS Distress, POMS Vigor, or fear of recurrence at 3 months or 1 year. 3. Women with low hope at diagnosis who had a high turning to religion at diagnosis predicted more positive adjustment over time and poorer adjustment with low turning to religion. 4. Women with high turning to religion and high hope at diagnosis predicted a decrease in adjustment, and low religious coping predicted better adjustment.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Targ & Levine (2002)	To examine quality of life, depression, anxiety, and spirituality outcomes after completion of a support group intervention.	*n* = 181; within 18 months of diagnosis recruited via flyers and public service announcements.	RCT; two support group interventions – 'standard' – cognitive-behavioral approaches and support or 'CAM' – taught use of meditation, affirmation, imagery, and ritual. Measures – Functional Assessment of Chronic Illness Therapy (FACIT); Profile of Mood States (POMS); and FACIT-Sp and Principles of Living Survey (PLS).	1. With all measures combined there was no difference between the groups. 2. CAM vs. standard - ↑ spiritual integration and spiritual growth.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Wildes et al. (2008)	To evaluate the association of religiosity/spirituality (R/S) and health related quality of life (HRQOL).	*n* = 117; Latinas survivors from clinics, organizations, and support groups.	Cross-sectional, descriptive study. Measures – Systems of Belief Inventory-15 Revised (SBI-15R); and Functional Assessment of Cancer Therapy-General (FACT-G).	1. The SBI-15R total score was + correlated with FACT-G social well-being (SWB), relationship with doctor (RWD), and functional well-being (FWB). 2. SBI-15R was a significant predictor of FWB and RWD.
Urcuyo et al. (2005)	To characterize the experiences of benefit finding.	*n* = 230; early-stage survivors in the year post-surgery recruited from medical practices.	Cross-sectional design –3 groups measured at 3, 6, or 12 months post-surgery. Measures – benefit finding – 17 item scale and BriefCOPE.	1. Benefit finding was significantly, positively associated with religious coping.

Table 2.1, continued

Authors/Year of Publication	Purpose	Sample and Setting	Research Design and Method	Key Findings
Zwingmann et al. (2008)	To examine religious commitment, positive and negative religious coping, and religious commitment x religious coping interactions in predicting anxiety.	*n* = 167; German convenience sample from an oncological inpatient rehabilitation center.	Cross-sectional, descriptive study. Measures – religious commitment – Centrality Scale (C-scale); RCOPE short form; and anxiety subscale of the Hospital Anxiety and Depression Scale (HADS).	1. Catholic participants had significant, + correlations with the C-scale, the positive religious coping subscale, and a – correlation with anxiety. 2. Protestant participants had a significant, + correlation with the negative religious coping subscale. 3. After controlling for age, education, and partner status, basic religious variables – C-scale, Catholic, or Protestant – were not significantly related to anxiety. 4. Anxiety was increased by negative religious coping strategies and decreased by positive religious coping strategies. 5. Religious commitment exhibited a significant – relationship with anxiety at low levels of negative religious coping, but at high levels of negative religious coping, there was a significant + relationship with anxiety.

CHAPTER THREE

Psychometric properties of the Image of God Scale in early breast cancer survivors

Synopsis

Background and Purpose: The role and impact of religion in psycho-social-spiritual adjustment and coping has been difficult to quantify. This article reports on the psychometric properties of the Image of God Scale (IGS) in early stage breast cancer survivors.

Methods: The target population was women transitioning from initial treatment to survivorship as they readjust to 'normal' life after a life-altering diagnosis. Mailing lists for women meeting inclusion criteria were obtained from a university and a community practice. One hundred and twenty-nine women responded (30% response rate). A total of 124 women completed all instruments and were included in the final sample.

Results: Principle Component Analysis (PCA) confirmed the original 2-factor model with factor loadings ranging from .56 to .83. Cronbach's alphas for the two subscales – belief in God's anger (.80) and belief in God's engagement (.89) – were consistent with those established at development. Convergent and discriminate validity examination supported the construct of God image being separate from psychological domains.

Conclusions: The IGS is a unique measure of how God is viewed by the depth and character of his involvement with the individual and the world.

Key Words: Breast cancer, image of God, confirmatory factor analysis, reliability, convergent and discriminate validity

Background and Conceptual Framework

The purpose of the present study was to examine the psychometric properties of the Image of God Scale (IGS), a measure of how individuals perceive God's level of interaction in their lives and His quickness to anger (Bader & Froese, 2005). An individual's view of God is thought to influence core strivings and life principles (Emmons et al., 1998; Maynard et al., 2001; Pargament et al., 2005). For this reason, how one views God may be a key component in understanding how an individual deals with a stressful situation such as a diagnosis of cancer. Image of God studies in religious, sociological, and psychological literature have identified views of God based on a variety of theoretical bases (Hill, 1995; Hill & Hood, 1999; Holm, 1995). The effect of a persons' concept of God has been associated with religious variables (Froese & Bader, 2007; Maynard; Wong-McDonald & Gorsuch, 2004). Questions commonly addressed include: is there a way to assess religion and spirituality that is common to multiple religions and sects? Regardless of the god or gods worshipped, is there a perspective that reflects common behaviors and responses to the individual's god? If so, it would present a potential mediating factor for understanding the relationship of faith and health. Every major religion or belief system has more than one main division and within each main division there are often multiple subgroups. As an example, Christianity can be grouped in the following ways: main divisions – Protestant and Catholic; Protestant subgroups – Baptist, Methodist, Episcopalian, Lutheran, Presbyterian……. and Catholic subgroups – Roman, Eastern Orthodox, and Russian Orthodox; and each of these subgroups can be divided again into one or more sub-subgroups. How an individual views the character and behavior of God and how that individual defines him/her, is an approach to classify and describe psycho-social-spiritual responses to existential crises. Denominational affiliation has not served as a good proxy measure for identifying an individual's religious/spiritual response to threat, loss, or challenge stressors. Meaningful evaluation of outcomes based simply on religious affiliation would require extremely large sampling due to the vast number of permutations within each division.

Two factors drove the development of the IGS: the need for a measure that would categorize concepts of God in a way that impact non-religious outcomes and that transcend denominational affiliations (Bader & Froese, 2005). Bader and Froese state "…God's attention and personality are crucial to the individual's worldview and how she or he responds to life's choices" (Bader & Froese). The measures of God's form and function in the IGS (engagement and anger) were based on the philosophical underpinnings of Baruch Spinoza and Gottfried Leibniz. In the mid-17th century they engaged in a debate regarding God's nature where Spinoza posited a God who is nature and Leibniz who described God as a being who exists independent of the laws of nature and thinks, feels, judges, and interacts with His creation (Leibniz, 1960; Spinoza, 1960). Current views of God's autonomy or engagement with the world is grounded in this debate.

The aims of the present study were to: 1) assess the functionality of the Image of God Scale in a breast cancer survivor population, 2) assess the internal consistency reliability of the total scale and subscales; 3) investigate the dimensionality of the Image of God Scale; 4) evaluate the convergent validity of the Image of God Scale with the Religious/Spiritual Coping scale (RCOPE) and BriefRCOPE; and 5) evaluate the discriminate validity of the Image of God Scale with the Scales of Psychological Well-being (SPWB), Overall Fear subscale of the Concerns about Recurrence Scale (CARS), and the Depression Anxiety and Stress Scale (DASS).

Description, Administration, and Scoring of the Instrument

Based on the perceived importance of religion in the lives of Americans, the Baylor Institute for Studies of Religion (ISR) completed a general population survey on this topic (Bader et al., 2006). Looking beyond affiliation to the combined impact of affiliation and behavior, the IGS was developed from 29 questions regarding God's character and behavior. It was created based on a survey of 1,721 participants and used the data to develop a scale that describes two distinct dimensions of belief in God (God's level of engagement and God's

level of anger) that generates four views of God: Benevolent, Authoritarian, Critical, and Distant.

A factor analysis identified two significant and distinct dimensions of belief in God: **God's level of engagement** – the extent to which individuals believe that God is directly involved in worldly and personal affairs; and **God's level of anger** – the extent to which individuals believe that God is angered by human sins and tends towards punishing, severe, and wrathful characteristics. The data identified engaged and judgmental images of God as significantly related to increased religious involvement, conservative religious beliefs, and political differences (Froese & Bader, 2007).

The Image of God Scale is a 14-item, self-report instrument developed to identify how individuals view who God is and what God does in the world (Bader et al., 2006). There are two subscales that together determine the four types of believers. The two subscales are Belief in God's Engagement, 8-items (alpha - .91) with scores ranging from 8 to 40, and Belief in God's Anger, 6-items (alpha = .85) with scores ranging from 6 to 30. Responses are based on a 5-point Likert scale that ranges from 'strongly disagree' or 'not at all' to 'strongly agree' or 'very well' with 3 items in the engagement scale are reversed scored. The mean scores of the two scales are used to divide the sample into four groups – above the mean on both (Type A – Authoritarian); below the mean on both (Type D – Distant); above the mean on engagement but below the mean on anger (Type B – Benevolent); and above the median on anger but below the mean on engagement (Type C – Critical) (Bader, 2007).

Methods

Design/Sample

Data for this cross-sectional study were collected via mailed surveys to women in the first two years of breast cancer survivorship immediately upon completion of initial treatment. Included in the sample were women from a university breast cancer clinic and from a community practice. The study was

designed to assess the difference in psychological well-being, depression, anxiety, stress, and concern about recurrence in women based on their image of God. Inclusion criteria were: at least 18 years and able to read and understand English. One hundred and twenty-nine women completed the IGS.

Measures

Demographic Information. Demographic data collected included: age, marital status, education, socio-economic status, physician practice, and religious affiliation.

Religious Coping. The RCOPE (Religious/Spiritual Coping) Short Form is a theoretically based, 63-item measure that assesses the array of religious coping methods, including those perceived as helpful or harmful (Pargament et al., 2000). There are 17 specific sub-scales which are combined into 2 main sub-scales, Negative Religious Coping and Positive Religious Coping. All items are on a 4-point Likert scale, ranging from 1 'not at all' to 4 'a great deal'. Cronbach's alphas for the 21 sub-scales have been reported >.80 for all but two scales (Reappraisal of God's Power - .78; Marking Religious Boundaries - .61). In two studies (Pargament; Pargament, Koenig, Tarakeshwar, & Hahn, 2004), the sub-scale scores were collapsed into two categories – positive and negative coping – with each category score comprising the sum of the collapsed categories.

Depression, Anxiety, and Stress. The DASS (Depression Anxiety Stress Scale) is a set of three self-report scales designed to measure depression, anxiety, and stress (Lovibond & Lovibond, 1995). Each of the three DASS scales in the 42-item questionnaire contains 14 items for a total sum score. The DASS-21 is a short version of the original scale. Responses are for the past week reported on a 4-point Likert scale where 0 'did not apply' to 3 'applied to me very much'. A total score for each scale can range from 0 to 42 (no symptoms to severe symptoms). Cronbach's alpha has been reported for both the 42-item and 21-item scales ranging from .94 to .97 for depression, from .87 to .92 for anxiety, and from .91 to .96 for stress (Antony, Bieling, Cox, Enns, & Swinson, 1998;

Brown, Chorpita, Korotitsch, & Barlow, 1997; Crawford & Henry, 2003). Reliability of the three scales is considered adequate and test-retest reliability is likewise considered adequate with .71 for depression, .79 for anxiety and .81 for stress (Brown et al., 1997). Categories have been described for each scale as normal, mild, moderate, severe, and extremely severe in comparison to the general population (Lovibond & Lovibond).

Fear of Recurrence. The Overall Fear subscale of the Concerns About Recurrence Scales (CARS) (Vickberg, 2003) was used in this study. The primary purpose was to identify the presence of the fear of recurrence for breast cancer survivors and if that fear varied based on the survivors image of God. The full questionnaire is a 30-item instrument devised to assess women's fears about breast cancer recurrence. The sub-scales are divided into two main parts: a) overall fear, 4-items, and b) the nature of the woman's fears, 26-items. Only the overall fear index was used in this study. It has a high internal consistency (α=.87) and is significantly correlated with all four CARS sub-scales. Higher scores are indicative of a higher sense of worry. Responses range from 1 'I don't think about it at all' to 6 'I think about it all the time' for the overall fear scale. Convergent validity was substantiated with the Impact of Events Scales (IES) and the Mental Health Inventory (MHI). The overall fear scale was correlated with the Intrusive Thoughts (r=.64, p<.001) and Avoidance (r=-.50, p<.001) sub-scales of the IES, and the Distress (r=.54, p<.001) and Well-Being (r=-.44, p<.001) sub-scales of the MHI.

Psychological Well-Being. The Scales of Psychological Well-Being (SPWB) (Ryff, 1989) is an 84-item instrument devised to measure the causes and consequences of positive psychological functioning. There are six 14-item scales imbedded in the instrument: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Higher scores are indicative of a higher level of psychological well-being. Responses range from 1 'strongly disagree' to 6 'strongly agree' and half of the items are reversed scored. Alpha coefficients range from .83 to .91 for each

scale, and correlations between the scales and the 20-item parent scales range from .97 to .99.

Procedures

Institutional Review Board approval was obtained before data collection was initiated. Informed consent letters and letters of support from the physicians were sent along with the packet of questionnaires. Completion and return of the questionnaires was consent to participate. No identifying information is associated with the returned questionnaires. The study packet included the following questionnaires: demographic, IGS, psychological well-being, depression, anxiety, stress, and concern about recurrence.

Reliability coefficients were determined by calculating Cronbach's alpha for the IGS subscales. The dimensionality of the instrument was examined using a principal components analysis. Convergent and discriminate validity was evaluated by examining correlations with the Religious/Spiritual Coping scale (RCOPE, BriefRCOPE) (Pargament et al., 2004), and measures of psychological adjustment: Ryff's Scales of Psychological Well-Being (SPWB) (Ryff & Keyes, 1995); Depression Anxiety and Stress Scale (DASS) (Lovibond & Lovibond, 1995); and the Overall Fear subscale of the Concerns About Recurrence Scale (CARS) (Vickberg, 2003).

Results

Descriptives

The mean age of the 129 study participants was 56 years (SD = 11.3) and 99% were white. Eighty percent were married or partnered and 34% had an educational level of high school or less. Twenty-one percent had incomes of $40,000 or less. Forty percent were from the University based practice and 44% were from Appalachia. Eighty-seven percent were Protestant. The women viewed God as not highly engaged (55%) and not highly angry (51%) and the

four views of God were evenly distributed. Psychological distress was present in approximately 20 – 30% of the women (Table 3.1).

Internal consistency reliability

Descriptive statistics and reliability statistics of the FACT-O and its subscales are presented in Table 3.2. All scales and subscales were completed by 123 participants. Actual scores cover the major portion of the potential ranges. Cronbach's alpha values were .80 for the anger scale and .89 for the engagement scale. Skewness statistics identified a left shift (.31) for the anger subscale and a right shift (-1.94) for the engagement subscale. Kurtosis statistics suggest that there were a large number of responses at the extremes (-.85) for the anger subscale and a significant peak (4.34) for the engagement subscale.

Exploratory factor analysis

Principle component analysis identified four factors with eigenvalues >1 however, the scree plot flattened out between factors 2 and 3 yielding two factors having eigenvalues >3. Orthogonal (varimax) and oblique (direct oblimin) rotations were run on the two factor solution with the Varimax rotation determined to be the final solution (Table 3.3). This solution accounted for 56.4% of the variance in the scores.

Convergent and discriminate validity

The constructs of an angry and an engaged God were examined using correlations to ascertain convergent and discriminate validity with measures of religious/spiritual coping and psychological adjustment. The Image of God Scale and the RCOPE were examined for convergent validity (Table 3.4). The Anger subscale was correlated with the Positive (.18, $p < .05$) and Negative (.29, $p < .01$) Coping Strategy subscales of the situational RCOPE, but was not significantly correlated with the dispositional or BriefRCOPE. The Engagement subscale was correlated with the Positive (.61, $p < .01$) Coping Strategy subscale

of the situational RCOPE, and with the dispositional or BriefRCOPE (Positive = .64, p <.01; Negative = -.58, p <.01; and Overall = .61, p <.01).

The Image of God Scale and the SPWB, CARS, and DASS were examined for discriminate validity (Table 3.5 and Table 3.6). The Anger subscale was correlated with the total SPWB score (-.27, p < .01) and four of six subscales (Autonomy = -.19, p < .05; Environmental Mastery = -.29, p < .01; Purpose in Life = -.22, p < .05; Self Acceptance = -.26, p < .01), the CARS (.24, p < .01), the DASS-Depression (.20, p <.05), the DASS-Anxiety (.22, p <.05), and the DASS-Stress (.27, p <.01). The Engagement subscale was not correlated with the total SPWB total score or subscale scores, the CARS, the DASS-Depression, the DASS-Anxiety, or the DASS-Stress.

Discussion

Internal consistency was high (> .80) with similar reliability estimates for breast cancer survivors as reported for the general population. The results suggest that the IGS demonstrates adequate data to support internal consistency reliability. The anger subscale had somewhat of a left skew, but a flat curve. This suggests that although the overall scores trended towards the belief that God is not very angry, responses were heavily weighted at the extremes. The engagement subscale was significantly skewed to the right with a strong peak in the curve. More survivors viewed God as somewhat to very engaged. This is similar to the data reported in the general population (Froese & Bader, 2007).

Means and standard deviations, however, did vary between the two population samples. In this study there was a higher mean score for the engagement subscale (35.6, SD 5.93; general population sample – 30.6, SD 7.9) and a lower mean score for the anger subscale (15.3, SD 5.9; general population sample – 17.0, SD 6.4); creating a 20.3 point difference in the survivor group versus a 13.6 point difference in the general population group (Froese & Bader, 2007). Due to the cross-sectional, descriptive study design, it is not possible to conclude what the cause of the greater difference between the subscale means

in the two studies. There are three potential explanations for this difference: 1) the breast cancer survivors were exclusively female; 2) individuals that are transitioning to the survivorship stage of a life-threatening disease may choose to view God as more benevolent and less angry in order to cope with their new reality; and 3) the participants live in a state that ranks in the top ten most religious states according to a 2008 aggregate report of the Gallup Poll's daily tracking data (Gallup Poll, 2008).

Factor analysis supported the original two factor solution: belief in God's engagement and belief in God's anger (Bader et al., 2006). All items loaded on one of the two factors with correlations ranging from .56 to .83. No items were double-loaded. Factor 1 – Engagement accounted for 33.6% of the variance and Factor 2 – Anger accounted for 22.8% of the variance. The two-factor solution is supported by the current study and measures distinct attributes of God.

This study provides initial evidence of convergent and discriminate validity when used with breast cancer survivors. Correlations between the IGS and the RCOPE, BriefRCOPE, Ryff's SPWB, CARS scale, and DASS were employed to examine validity. The engagement subscale was significantly correlated with all BriefRCOPE subscales and the positive coping strategies subscale of the RCOPE, but was not correlated with the negative coping strategies subscale. The anger subscale was significantly correlated with both subscales of the RCOPE and had no significant correlations with the BriefRCOPE. Although the IGS measures the image of God and the RCOPE/BriefRCOPE measure styles of religious coping, the correlations between the two measures support the focus of each on a concept of God.

Validation that the IGS is measuring a concept independent of psychological domains was evaluated against Ryff's SPWB, the CARS scale, and the DASS. The engagement subscale was not significantly correlated with any instrument measuring psychological variables. The anger subscale was significantly, inversely correlated with the total score and four of six subscales of Ryff's SPWB and significantly, positively correlated with CARS, depression,

anxiety, and stress. The lack of correlations between the engagement subscales and any measure of psychological well-being or distress demonstrates discrimination between concepts of God and psychological adjustment. Correlations between the anger subscale and measures of psychological well-being (inverse) and distress were significant, but small and are in the direction that is expected. The lack of considerable associations between the IGS and measures of psychological adjustment supports discrimination between the concept of God and psychological concepts.

Conclusions

The IGS was developed from a general population survey to measure variation within theistic worldviews. Persons who acknowledge that God exists vary greatly in how they perceive his interaction with the world and with themselves. Two primary beliefs underlie the concept of God's interactions with the world and with individuals: the belief that God is engaged and the belief that God is angry. Breast cancer survivors adjusting to life with a potentially debilitating or ultimately deadly disease view the rest of their life through the lens of survivorship within their overarching worldview. This study evaluated the IGS in a sample of early breast cancer survivors.

The IGS is a unique measure of how God is viewed by the depth and character of his involvement with the individual and the world. This study provides evidence that the IGS is an appropriate instrument that exhibited reliability and convergent and discriminate validity when assessing the image of God held by breast cancer survivors. The two-factor structure originally reported (Bader et al., 2006) was supported in this analysis. Further research is warranted to test the instrument in more diverse cancer populations, in multiple regions of the United States, internationally, and across monotheistic, polytheistic, and deistic groups. Although many measures of religion, and spirituality, exist, a measure that can be used to classify or group people in a meaningful and measureable way has been elusive. The IGS may be a measure that can transcend sects, denominations, and religions by identifying the image

of God that underlies and defines an individual's worldview which influences their attitudes and behaviors.

Table 3.1. Demographic Characteristics (N = 123)

Characteristics	N (%) / Mean (Range)
White	122 (99)
Age	56 (36-90)
Marital status	
Married/partnered	100 (80)
Educational status	
High school or less	42 (34)
College/University	49 (39)
Graduate School	32 (27)
Household Income	
Less than $20,000	9 (7)
$20,001 - $40,000	19 (15)
$40,001 - $80,000	44 (36)
More than $80,0001	46 (38)
Did not report	5 (4)
Physician Practice	
University	49 (40)
Community	74 (60)
Location	
Non- Appalachia	70 (56)
Appalachia	52 (44)
Religious Affiliation	
Jewish	2 (1)
Catholic	9 (7)
Protestant	106 (87)
Other/Atheist	6 (5)

Table 3.1, continuation

View of God	
Authoritarian	27 (23)
Benevolent	27 (23)
Critical	34 (27)
Distant	35 (27)
Belief that God is Engaged	
Low	68 (55)
High	55 (45)
Belief that God is Angry	
Low	63 (51)
High	60 (49)
Stress Level	
Normal	93 (75)
Mild-Extremely Severe	30 (25)
Anxiety Level	
Normal	88 (71)
Mild-Extremely Severe	35 (29)
Depression Level	
Normal	101 (81)
Mild-Extremely Severe	22 (19)

Table 3.2. Descriptive Statistics and Reliability of the Image of God Scale (IGS) Subscales

Scale/Subscales	n	Number of Items	Mean	SD	Potential Range	Actual Range	Cronbach's alpha
Anger	124	6	15.31	5.99	6-30	6-29	.80
Engagement	123	8	35.60	5.93	8-40	8-40	.89

Table 3.3. Structure of IGS: Component Names and Factor Loadings (n = 123)

	Components	
	1	2
	Engagement	Anger
Even if you might not believe in God, Based on your personal understanding, what do you think God is like?		
1. Removed from worldly affairs.	**-.77**	
2. Removed from my personal affairs.	**-.83**	
3. Concerned with the well-being of the world.	**.70**	
4. Concerned with my personal well-being.	**.72**	
5. Angered by human sin.	.36	**.62**
6. Angered by my sins.	.36	**.62**
7. Directly involved in worldly affairs.	**.82**	.18
8. Directly involved in my affairs.	**.83**	.15
How well do you feel that each of the following words describe God?		
1. Critical	-.27	**.56**
2. Distant	**-.67**	-.25
3. Ever-present	**.52**	-.25
4. Punishing	-.10	**.78**
5. Severe		**.81**
6. Wrathful		**.81**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table 3.4. Intercorrelations Among Total Scores of the Image of God Scale (IGS) Subscales, Religious/Spiritual Coping Short Form (RCOPE) Subscales and the Brief Religious/Spiritual Coping Short Form (BriefRCOPE) Subscales (n = 123)

Image of God Subscales	RCOPE		BriefRCOPE		
	Positive Coping Strategies	Negative Coping Strategies	Positive	Negative	Overall
Anger	.18*	.29**	.13	.15	.12
Engagement	.61**	.02	.64**	-.58**	.61**

**p <.01 (2-tailed)

*p <.05 (2-tailed)

Table 3.5. Intercorrelations Among Total Scores of the Image of God Scale (IGS) Subscales and Ryff's Scales of Psychological Well-Being (SPWB) Total Score and Subscale Scores (n = 123)

Image of God Subscales	Scales of Psychological Well-Being						
	Total	Autonomy	Environmental Mastery	Positive Relations	Personal Growth	Purpose in Life	Self Acceptance
Anger	-.27**	-.19*	-.29**	-.14	-.18	-.22*	-.26**
Engagement	.14	.11	.13	.12	.12	.12	.10

**p <.01 (2-tailed)

*p <.05 (2-tailed)

Table 3.6. Intercorrelations Among Total Scores of the Image of God Scale (IGS) Subscales, the Overall Fear Subscale (Concern About Recurrence Scale), and the Depression Anxiety Stress Scale (DASS) Subscale Scores (n = 123)

Image of God Subscales	Fear of Recurrence Total	DASS Subscales		
		Depression	Anxiety	Stress
Anger	.24**	.20*	.22*	.27**
Engagement	-.14	-.09	-.01	-.14

**p <.01 (2-tailed)

*p <.05 (2-tailed)

CHAPTER FOUR

Purpose/Objectives: To examine the effect of breast cancer survivors' view of God on religious coping strategies, depression, anxiety, stress, fear of recurrence, and psychological well-being.

Design: Exploratory, cross-sectional, comparative survey.

Setting: Outpatients from a community oncology practice and a University breast cancer center in the mid-South.

Sample: 130 early breast cancer survivors (6 - 30 months post-diagnosis).

Methods: 440 survey packets were mailed to practice-identified survivors with consent and physician letters voicing support of the study.

Main Research Variables: View of God, religious coping strategies, depression, anxiety, stress, fear of recurrence, and psychological well-being.

Findings: Differences were found between views of God and use of religious/spiritual coping strategies focused on Spiritual Conservation and Spiritual Struggle. Psychological Well-Being (SPWB) was inversely correlated with Spiritual Struggle. Differences were noted for psychological well-being, fear of recurrence, and stress in women who viewed God as highly engaged or not. No differences were noted for the same variables in women who view God as more or less angry.

Conclusions: The belief that God is engaged is significantly related to psychological well-being, psychological distress, and concern about recurrence.

Implications for Nursing: Addressing survivors' issues related to psychological adjustment and concern about recurrence within their worldview would allow for more personalized and effective interventions. Future research needs to be conducted to establish how the view that God is engaged impacts coping and

psychological adjustment across diverse groups of cancer survivors. Identification of the role that belief in God's engagement and in God's anger among a larger population of monotheistic, polytheistic, and naturalistic worldviews could lead to a practical method for examining the influence of these worldviews on individuals' responses to cancer diagnosis, treatment, and survivorship.

Introduction

Breast cancer is the most common type of cancer diagnosed in women in the United States with a 5-year survival rate of 89% (Jemal et al., 2008). As a result, breast cancer survivors represent 23% of the American cancer survivor population (Rowland & Bellizzi, 2008). Cancer can affect many aspects of a survivors' life including physical, social, existential /religious, and psychological issues. Over the past 10 – 20 years there have been a number of studies that have focused on breast cancer survivors, with the vast majority being longer term survivors (5-years +) (Bower et al., 2005; Carver et al., 2005; Carver, Smith, Petronis, & Antoni, 2006; Deimling et al., 2006; Ferrell et al., 1995; Gall & Cornblat, 2002; Meraviglia, 2006; Stanton et al., 2002). The transition from active treatment to post-treatment survivor is a critical time where chosen behaviors and coping mechanisms, including religious coping, predict longer-term adjustment (Jim et al., 2006; Lauver, Connolly-Nelson, & Vang, 2007; McMillen, 1999; Stanton et al.).

How an individual views the character and behavior of God can be a foundation for one's worldview. An individual's view of God is thought to influence core strivings and life principles (Emmons et al., 1998; Maynard et al., 2001; Pargament et al., 2005). For this reason, how one views God may be a key component in understanding each of these variables in relation to an individual's ability to deal with a diagnosis of cancer. The Baylor Institute for Studies of Religion (ISR) completed a general population survey on the perceived importance of religion in the lives of Americans (Bader et al., 2006). Belief that denominational affiliation does not significantly contribute to understanding an individual's behavior led to the development of the Image of God Scale (IGS). This scale has two significant and distinct dimensions of belief in God: God's level of engagement and God's level of anger. Within these dimension four views of God: Benevolent, Authoritarian, Critical, and Distant are identified (Bader & Froese, 2005). Images of God were able to predict a variety of factors: moral issues, political opinions, civic engagement, religious

consumption, and the paranormal (Bader & Froese; Froese & Bader, 2007). Belief in God or not, belief in an engaged God, or belief in an angry God is one way to classify and describe individuals' perspectives on existential issues that transcends religions, denominations, or sects.

Religious coping, anxiety, depression, stress, psychological well-being, and fear of recurrence were selected for this study. Selection was based on literature that demonstrates a relationship between these variables and quality of life among breast cancer survivors. Utilization of religious coping strategies among breast cancer survivors to moderate stress can be found in both qualitative (Gall & Cornblat, 2002; Landmark et al., 2001) and quantitative studies (Boehmke & Dickerson, 2006; Morgan et al., 2006; Zwingmann et al., 2006). Anxiety, depression, and stress have long been associated with psychological adjustment among cancer patients (Deimling et al., 2006; Montgomery et al., 2003; Nordin et al., 2001). Psychological well-being (Andrykowski, Lykins, & Floyd, 2008; Carver et al., 2005; Urcuyo et al., 2005) and its association with spirituality (Cotton et al., 1999; Manning-Walsh, 2005; Meraviglia, 2006) has been linked to positive, long-term survivorship. Fear of recurrence are frequently found among both short-term (Stanton et al., 2002; Wonghongkul et al., 2006) and long-term (Deimling et al.; Ferrell et al., 1995; Wonghongkul et al.) breast cancer survivors.

The purpose of this study was to examine whether a breast cancer survivor's religious coping strategies, depression, anxiety, stress, psychological well-being, and fear of recurrence differ based on her image of God. Specific aims included: 1) to identify religious coping strategies common to each of the four views of God: 2) to examine the relationship of psychological well-being (Ryff) and religious coping strategies; and 3) to examine differences in depression, anxiety, stress, fear of recurrence, and psychological well-being among women holding various views of God.

Theoretical Framework

Worldviews are groups of beliefs and assumptions that describe the world and life within it (Koltko-Rivera, 2004; Vidal, 2008). An essential core belief for most individuals reflects their description of God. An ultimate concern for many human beings is the search for transcendent meaning or the striving to answer fundamental questions such as: Why am I here? Or, What is my purpose in life? (Archer et al., 2004; Frankl, 1978; Reker & Chamberlain, 2000). Whether the individual believes in a God that created the world, a God created to explain the world, or a world without God, each person has a view of fundamental truth that influences their lives. For most individuals in the United States, a belief in God forms a fundamental truth that guides their existence. For some, reason and mankind independent of a supernatural force is the fundamental truth that guides their existence (Baldacchino & Draper, 2001; Chan et al., 2006; Emmons, 2000). The individual's worldview, whether religious, spiritual, existential, or naturalistic is the primary driver directing behaviors (Koltko-Rivera; Vidal).

Worldviews are ways to explain our very existence and the central questions of why are we here and how did we get here. Answering these questions starts with believing in the existence of some creative force/being or believing in some manner of random but constructive development of life and the world. Understandings of God's form and function in the western world are based on the philosophical underpinnings of Baruch Spinoza and Gottfried Leibniz. In the mid-17th century they engaged in a debate regarding the nature of God. Spinoza posited a God who is nature. Leibniz described God as existing independent of the laws of nature who thinks, feels, judges, and interacts with His creation (Leibniz, 1960; Spinoza, 1960). Current views of God's autonomy or engagement with the world is grounded in this debate.

Methods

Design. A cross-sectional, comparative design was used to examine if use of religious coping strategies associated with Spiritual Conservation and Spiritual

Struggle, depression, anxiety, stress, psychological well-being, and fear of recurrence differed among breast cancer survivors based on their image of God.

Setting and Sample. The sample consisted of recently diagnosed female breast cancer survivors (between 6 months and 30 months post-diagnosis) who completed treatment and were transitioning from the treatment stage to early survivorship. Women were recruited from two practices; a University breast cancer clinic and a community oncology practice.

Procedure for Data Collection. This study was approved by the university institutional review board with an addendum covering the community oncology practice. A list of women meeting the inclusion criteria was obtained from both the University breast cancer clinic and the community-based oncology practice. Inclusion criteria were: a) women breast cancer survivors not currently receiving chemotherapy or radiation therapy with the exception of oral anti-estrogens or aromatase inhibitors, b) ≥21 years of age, and c) able to read and write English. Exclusion criteria were: a) any diagnosis of psychosis and b) breast cancer as a second primary diagnosis. There were 300-500 potential participants. The needed accrual based on the power analysis was 128. Four hundred and forty surveys were mailed and 130 were returned for a response rate of 30%. The *n* for this analysis was 129 as one respondent did not complete the View of God questionnaire. She identified herself has an atheist who could not answer these questions. A cover letter explaining the study as well as the components of informed consent and an additional letter from the appropriate physician noting his/her support of the study were included in the survey mailing. Informed consent was confirmed by the completion and return of the packet of study instruments. Upon completion of the study participants received a $10 gift card.

Study Measures/Instruments. Study measures were selected based on psychometric properties and appropriateness to assess view of God, religious coping, depression, anxiety, stress, psychological well-being, and fear of recurrence. All measures and demographic information were completed at one time point.

Demographic Information. Demographic data collected included: age, marital status, education, socio-economic status, physician practice, and religious affiliation.

Image of God. The Image of God Scale (IGS) is a 14-item instrument developed to identify how individuals view who God is and what God does in the world (Bader et al*.,* 2006). There are two scales that together determine the four types of believers: Belief in God's Engagement, 8-items (alpha = .91) with scores ranging from 8 to 40, and Belief in God's Anger, 6-items (alpha = .85) with scores ranging from 6 to 30. Responses are based on a 5-point Likert scale that ranges from 'strongly disagree' or 'not at all' to 'strongly agree' or 'very well' with 3 engagement scale items reversed scored. The mean scores of the two scales are used to divide the sample into four groups (Figure 4.1) –Authoritarian, Distant, Benevolent, and Critical (Bader, 2007).

Religious Coping. The RCOPE (Religious/Spiritual Coping) Short Form is a theoretically based, 63-item measure that assesses the array of religious coping methods, including those perceived as helpful or harmful (Pargament et al., 2000). There are 17 specific sub-scales which are combined into 2 main sub-scales, Spiritual Struggle Religious Coping and Positive Religious Coping. The Positive and Spiritual Struggle Coping Strategy subscales names were derived not from the concept that the coping mechanisms were inherently good or bad, but on the concept that they were associated with positive or negative psychological outcomes (Pargament et al.). Based on Pargament's later work, a more precise terminology for positive and negative coping strategies evolved as spiritual conservation (positive) and spiritual struggle (negative) (Pargament, 2007). Throughout this study the terms spiritual conservation and spiritual struggle are used to identify the two subscales. All items are on a 4-point Likert scale, ranging from 1 'not at all' to 4 'a great deal'. Cronbach's alphas for the 21 sub-scales have been reported >.80 for all but two scales (Reappraisal of God's Power - .78; Marking Religious Boundaries - .61). In two studies (Pargament et al.; Pargament et al., 2004), the sub-scale scores were collapsed into two

categories – positive and negative coping – with each category score comprising the sum of the collapsed categories.

Depression, Anxiety, and Stress. The DASS (Depression Anxiety Stress Scale) is a set of three self-report scales designed to measure depression, anxiety, and stress (Lovibond & Lovibond, 1995). Each of the three DASS scales in the 42-item questionnaire contains 14 items for a total sum score. The DASS-21 is a short version of the original scale. Responses are for the past week reported on a 4-point Likert scale where 0 'did not apply' to 3 'applied to me very much'. A total score for each scale can range from 0 to 42 (no symptoms to severe symptoms). Cronbach's alpha has been reported for both the 42-item and 21-item scales ranging from .94 to .97 for depression, from .87 to .92 for anxiety, and from .91 to .96 for stress (Antony et al., 1998; Brown et al., 1997; Crawford & Henry, 2003). Reliability of the three scales is considered adequate and test-retest reliability is likewise considered adequate with .71 for depression, .79 for anxiety and .81 for stress (Brown et al.). Categories have been described for each scale as normal, mild, moderate, severe, and extremely severe in comparison to the general population (Lovibond & Lovibond).

Fear of Recurrence. The Overall Fear subscale of the Concerns About Recurrence Scales (CARS) (Vickberg, 2003) was used in this study. The primary purpose was to identify the presence of the fear of recurrence for breast cancer survivors and if that fear varied based on the survivors image of God. The full questionnaire is a 30-item instrument devised to assess women's fears about breast cancer recurrence. The sub-scales are divided into two main parts: a) overall fear, 4-items, and b) the nature of the woman's fears, 26-items. Only the overall fear index was used in this study. It has a high internal consistency (α=.87) and is significantly correlated with all four CARS sub-scales. Higher scores are indicative of a higher sense of worry. Responses range from 1 'I don't think about it at all' to 6 'I think about it all the time' for the overall fear scale. Convergent validity was substantiated with the Impact of Events Scales (IES) and the Mental Health Inventory (MHI). The overall fear scale was correlated

with the Intrusive Thoughts (r=.64, p<.001) and Avoidance (r=-.50, p<.001) sub-scales of the IES, and the Distress (r=.54, p<.001) and Well-Being (r=-.44, p<.001) sub-scales of the MHI.

Psychological Well-Being. The Scales of Psychological Well-Being (SPWB) (Ryff, 1989) is an 84-item instrument devised to measure the causes and consequences of positive psychological functioning. There are six 14-item scales imbedded in the instrument: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Higher scores are indicative of a higher level of psychological well-being. Responses range from 1 'strongly disagree' to 6 'strongly agree' and half of the items are reversed scored. Alpha coefficients range from .83 to .91 for each scale, and correlations between the scales and the 20-item parent scales range from .97 to .99.

Data Analysis. Demographic data summarized participant characteristics. Data analysis was conducted using SPSS for Windows and an alpha level of .05 was used throughout. The analysis plan based on the research questions is noted below:

Specific Aim 1: *To identify religious coping strategies common to each of the views of God*.

Scores for the RCOPE Spiritual Conservation and Spiritual Struggle subscales are presented for each of the four views of God: Authoritarian, Benevolent, Critical, or Distant; and for the two subscales: Belief in God's Engagement and Belief in God's Anger. The mean of both subscales for each view were converted to the 1- 'not at all' to 4 - 'a great deal' scale of the RCOPE to show the differences in clearer terminology.

Specific Aim 2: *To examine the relationship of psychological well-being (SWPB) and religious coping strategies.*

Pearson product moment correlations were calculated to determine the relationship of psychological well-being and the Spiritual Conservation and Spiritual Struggle subscales of the RCOPE.

Specific Aim 3: *To examine differences in depression, anxiety, stress, fear of recurrence, and psychological well-being among women holding various views of God.*

Analysis of Variance was used to test differences in the dependent variables within and across the two Image of God subscales: Belief in God's Engagement and Belief in God's Anger.

Power considerations. The power of the ANOVA to detect a significant difference between the four groups is approximately 80% with an alpha level of .05 if the critical F value is 2.68 or greater for 128 participants. Cohen (Cohen, 1988) considers a ratios of this magnitude to constitute a medium effect size. Power estimates were obtained using G*Power version 3.0.8. nQuery Advisor, v. 6 (Elashoff, 1995-2005).

Results

The 129 women included in this sample ranged in age from 36 – 90, mean age 56 years. They were typically white (99%), Protestant (87%), married/partnered (80%), highly educated (66%), and middle to upper income (74%) (Table 4.1). Protestant was divided into eight denominational categories. The top four were Baptist (41%), Christian (Disciples/Church of 24%), Methodist (14%), and Non-denominational (12%). No significant differences were found between the two groups based on the IGS subscales on demographic data.

In this study, participants were placed in one of the four groups by mean scores as established by the developer of the IGS (Bader, 2007): Benevolent 23%; Authoritarian 23%; Critical 27%; and Distant 27%. No self-identified atheists responded to the study survey. In contrast, the original national general

social survey reported different percentages in group classifications: Benevolent 23%; Authoritarian 31.4%; Critical 16%; Distant 24.4; and Atheist 5.2%. Mean scores for establishing the high/low categories for the engagement and anger subscales varied for this study and the original study (Froese & Bader, 2007): engagement present study/original (35.62 [SD 5.93] vs. 30.64 [SD 7.94]) and anger present study/original (15.34 [SD 5.99] vs. 17.04 [SD 6.43]).

Specific Aim 1

Mean scores for the Spiritual Conservation and Spiritual Struggle subscales of the RCOPE for the four views of God and for the IGS subscales were converted to scores corresponding to the standard RCOPE answers of 1 'not at all' to 4 'a great deal' (Figure 4.2). The scores were converted by dividing the mean score for each group by the number of questions in the Spiritual Conservation and Spiritual Struggle subscales. This conversion allows for easier interpretation of the raw data within RCOPE terminology. The experimental hypothesis that there were differences in the use of religious/spiritual coping strategies based on a woman's view of God was supported.

Use of coping strategies associated with spiritual conservation varied across views of God and beliefs that God is engaged or angry, while the use of coping strategies associated with spiritual struggle did not vary substantially across groups. Women who view God as Authoritarian or Benevolent had the lowest reported level of spiritual struggle behaviors in relation to spiritual conservation behaviors (2:1), while those who view God as Critical or Distant had the highest reported level of spiritual struggle behaviors in relation to spiritual conservation behaviors (3:2). The ratio of spiritual conservation behaviors to spiritual struggle behaviors remains the same when Authoritarian and Benevolent groups are combined as highly engaged and Critical and Distant are combined as less engaged. Variations in the Belief that God is Angry did not demonstrate any differences in the use of coping strategies associated with Spiritual Conservation versus Spiritual Struggle.

Specific Aim 2

Pearson' product moment correlations were performed on Ryff's SPWB and the RCOPE. The experimental hypothesis that there would be a positive relationship between the SPWB and the RCOPE Spiritual Conservation subscale was not supported. No significant correlations were found between these two measures. However, there were moderately-strong negative correlations between the SPWB and the RCOPE Spiritual Struggle subscale for the total score and all subscales with the exception of Autonomy (-.31 to -.43, p = .01) (Table 4.2).

Specific Aim 3

Differences in psychological well-being, concern about recurrence, depression, anxiety, and stress in women with different views of God were examined through analysis of variance (ANOVA) tests. Both experimental hypotheses related to the engaged view of God were supported. Women who believed that God is highly engaged reported greater well-being (means = 415.5, 393.0), and lower on the CAR (means = 10.0, 12.2), the DASS Depression (means = 4.7, 7.0), the DASS Anxiety (means = 4.9, 5.5), and the DASS Stress (means = 8.7, 12.2). These differences were significant for the SPWB, the CAR, and the DASS Stress (p = .01, p = .02, p = .02) (Table 4.3).

The hypothesis that women who viewed God as highly angry would score higher on scales measuring depression, anxiety, stress, and fear of recurrence and lower on psychological well-being was not supported. Women who believed that God is highly angry did not significantly vary on scores of psychological well-being (means - 400.0, 405.0), and fear of recurrence (means = 11.4, 11.1), Depression (means = 5.8, 6.1), Anxiety (means = 4.4, 6.1), and Stress (means = 11.6, 9.8). The ANOVA test did not identify any significant differences for psychological well-being, fear of recurrence, depression, anxiety, or stress.

Discussion

The current study was designed to examine the differences in spiritual coping strategies, depression, anxiety, stress, psychological well-being, and fear of recurrence for breast cancer survivors grouped by their image of God. The findings of this study support the idea that, among breast cancer survivors, when one's image of God is used as a method of classification differences in spiritual coping strategies, psychological well-being, and fear of recurrence are identifiable. Demographic data for self-identified religious affiliation was divided into four religions with 15 divisions/denominations and an open category. Participants identified themselves within 3 of 4 religions and 10 of 15 divisions/denominations with 11 other denominations added. Analysis of the data on a more 'traditional' measure such as religious affiliation would have been cumbersome or necessitated arbitrary divisions to have groupings that were statistically comparable. Classifying the women into groups based on the two IGS subscales or by the four views of God allowed comparisons between women with similar views independent of their specified religious affiliation.

Differences in the Spiritual Conservation subscale of the RCOPE were found between the low and high engagement groups, between the Authoritarian and Benevolent groups (high engagement) and the Critical and Distant groups (low engagement), however there were few differences in groups focused on God's anger. There were no significant differences between any of the groups and the Spiritual Struggle subscale. What varied was the magnitude of difference between Spiritual Struggle and Spiritual Conservation coping strategies in each group. Those who believed God to be the least engaged used more Spiritual Struggle coping strategies as a percentage of the Spiritual Conservation coping strategies used.

Religious coping strategies are predictors of psychological well-being (Bjorck & Thurman, 2007; Pargament et al., 1988; Pargament et al., 2004; Tarakeshwar et al., 2006; Zwingmann et al., 2006). In the present study, there was no significant relationship between the psychological well-being total and

subscale scores and Spiritual Conservation coping strategies. There were moderate-strong inverse relationships between psychological well-being and Spiritual Struggle coping strategies with the exception of the group that viewed God as highly engaged. For those that viewed God as highly engaged, there were no significant correlations between Spiritual Struggle coping strategies and psychological well-being. Psychological well-being was not diminished by spiritual struggles for women who viewed God as highly engaged. Spiritual struggle can lead to transformation and growth or to disengagement (Pargament, 2007). The results of this study with breast cancer survivors were consistent with the findings of a large meta-analysis (Ano & Vasconcelles, 2005) and in persons who experienced recent illness or injury or negative life events (Bjorck & Thurman; McConnell, Pargament, Ellison, & Flannelly, 2006). Believing that God is engaged may be a significant factor in determining or predicting the outcome of spiritual struggle when transitioning to the survivorship stage for women with breast cancer.

Differences in psychological well-being, concern about recurrence, depression, anxiety, and stress did vary for beliefs about God's engagement, but did not vary by beliefs about God's anger. These findings are consistent with the differences described between the belief in God's anger and belief in God's engagement subscales and the four views of God in this study. The Depression and Anxiety subscales did not demonstrate significant differences based on God's engagement or God's anger. Consistent with multiple studies, within the sample there was a modest group of women with stress (25%), anxiety (29%), or depression (19%) (Kissane et al., 2004; Montazeri et al., 2000; Nordin et al., 2001; van't Spijker, Trijsburg, & Duivenvoorden, 1997). Women who viewed God as highly engaged had higher psychological well-being and lower fear of recurrence and stress. This is consistent with findings associating spirituality and faith with psychological outcomes and concern about recurrence in studies of early-stage breast cancer survivors (Jim et al., 2006; Johnson Vickberg, 2001; Stanton et al., 2002). Spirituality and faith do affect psychological well-being, psychological distress, and concern about recurrence.

Limitations

This study was an exploratory, cross-sectional, comparative study and therefore had some inherent limitations. Three major issues limit generalizability to other cancer survivors. The study was conducted via mailed survey with a response rate of 30%. There is no way to determine why an individual decided to respond. Potential reasons for non-response are that the individual is either too stressed or depressed or that they have no strong feelings regarding the subject of the study.

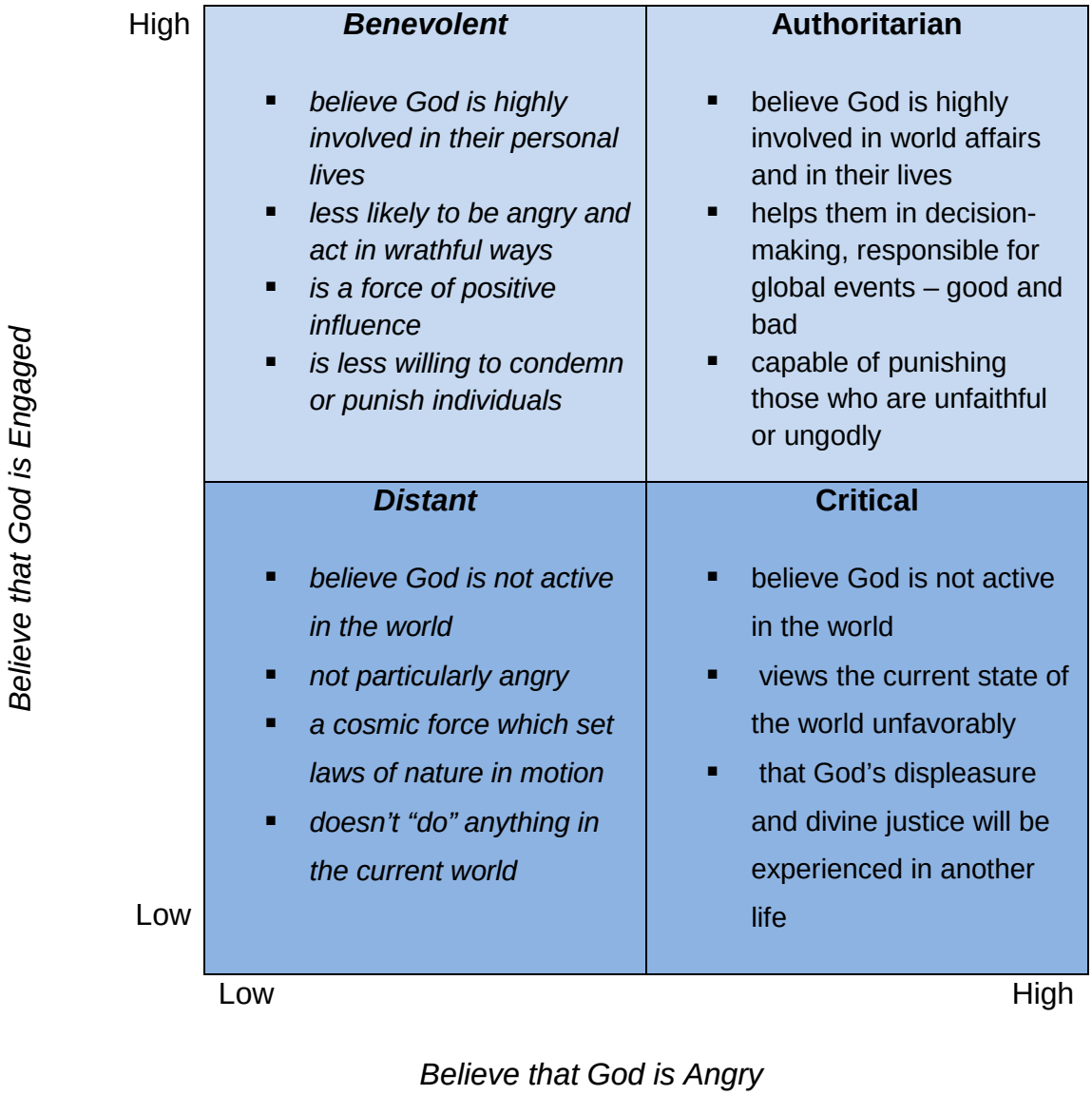
Conclusions/Implications for Research/Practice

This study was an exploratory, theoretical study to assess the viability of the IGS as a means of religious/spiritual classification independent of religious/denominational affiliation or of religious activities. Future research needs to be conducted to establish how the view that God is engaged impacts coping and psychological adjustment across diverse groups of cancer survivors. Cancer diagnoses may have greater or lesser impact on psychological adjustment depending on the prognosis – cure, long-term survival, or advanced disease. Religious/spiritual responses utilized when coping with a stressor can vary based on gender (Norton et al., 2006; Yohannes, Koenig, Baldwin, & Connolly, 2008) and ethnicity (Hummer, Ellison, Rogers, Moulton, & Romero, 2004; Krause, 2004; Moadel et al., 1999). In addition, identification of the role that belief in God's engagement and in God's anger among a larger population of monotheistic, polytheistic, and naturalistic worldviews could lead to a practical method for examining the influence of these worldviews on individuals' responses to cancer diagnosis, treatment, and survivorship.

IGS is a compelling measure that can be used to evaluate the function of spirituality across diverse religions and denominational divisions. Behaviors emanate from a worldview in response to particular events or experiences. Commonalities or differences in behaviors can be better determined when comparing consistently defined worldviews. Perceptions of the interaction

between God and man, our worldview, are consciously or unconsciously expressed in daily actions and behaviors (Koltko-Rivera, 2004).

In this study and in the original work of the Baylor ISR, the belief that God is engaged has a greater relationship to psychological well-being, psychological distress, and concern about recurrence. As posited by Froese and Bader (2007), "religion may most successfully motivate individuals through what it can offer them in spiritual intimacy, rather than through demands backed by threats of punishment" (p.479). The IGS could be used in any of the three main monotheistic religions (Judaism, Christianity, and Islam). How the term 'God' in the scale would translate for those who a polytheistic or naturalistic worldview has yet to be determined.



Atheists - certain that God does not exist and have no place for the supernatural in their worldview.

Figure 4.1. Image of God Categories

God's level of engagement – the extent to which individuals believe that God is directly involved in worldly and personal affairs - Highly Engaged God - lightly shaded areas; Less Engaged God – darker shaded areas. *God's level of anger* – the extent to which individuals believe that God is angered by human sins and tends towards punishing, severe, and wrathful characteristic - Highly Angry God and Less Angry God – italicized areas (Bader et al., 2006).

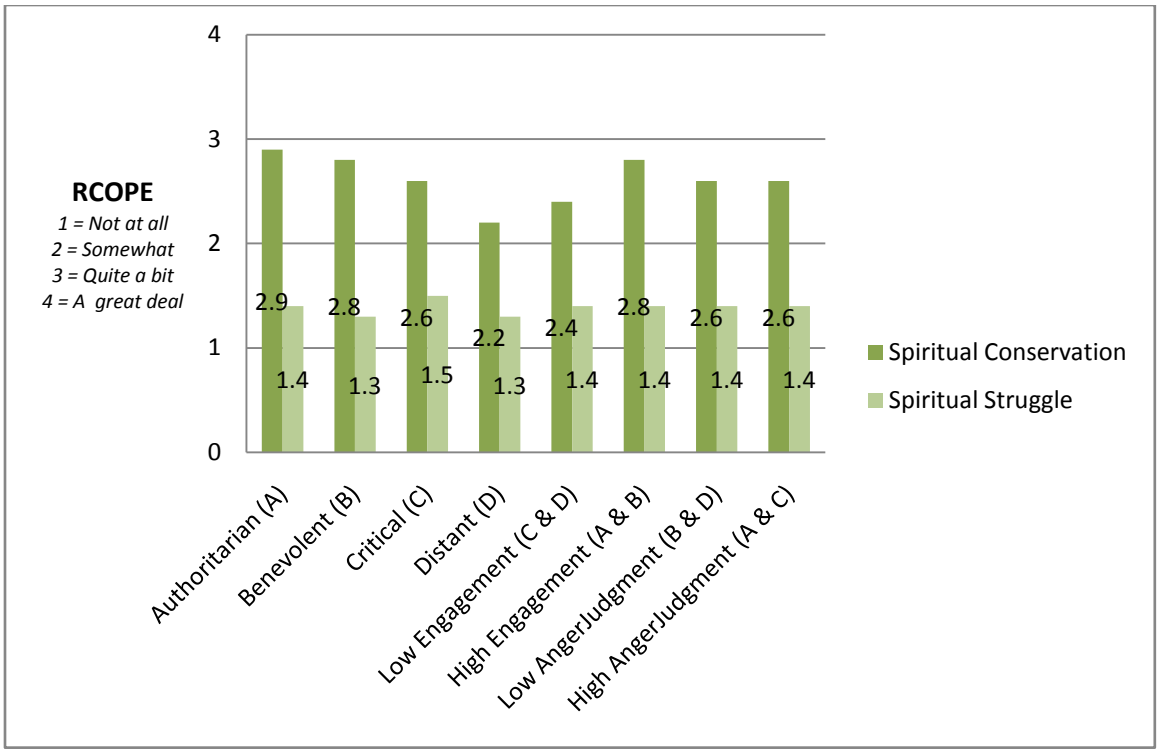


Figure 4.2. Situational Religious/Spiritual Coping Short Form (RCOPE) Scores Based on Image of God

Table 4.1. Demographic Characteristics (N = 129)

Characteristics	N (%) / Mean (Range)
White	128 (99)
Age	56 (36-90)
Marital status	
Married/partnered	104 (80)
Educational status	
High school or less	44 (34)
College/University	51 (39)
Graduate School	34 (27)
Household Income	
Less than $20,000	9 (7)
$20,001 - $40,000	19 (15)
$40,001 - $80,000	47 (36)
More than $80,0001	49 (38)
Did not report	5 (4)
Physician Practice	
University	52 (40)
Community	77 (60)
Location	
Non- Appalachia	73 (56)
Appalachia	55 (44)
Religious Affiliation	
Jewish	2 (1)
Catholic	9 (7)
Protestant	112 (87)
Other/Atheist	6 (5)

Table 4.1, continuation

View of God	
Authoritarian	29 (23)
Benevolent	29 (23)
Critical	35 (27)
Distant	36 (27)
Belief that God is Engaged	
Low	71 (55)
High	58 (45)
Belief that God is Angry	
Low	66 (51)
High	63 (49)
Stress Level	
Normal	98 (75)
Mild-Extremely Severe	31(25)
Anxiety Level	
Normal	92 (71)
Mild-Extremely Severe	37 (29)
Depression Level	
Normal	105 (81)
Mild-Extremely Severe	24 (19)

Table 4.2. Pearson's Correlations for Ryff's Scales of Psychological Well-Being (SPWB) and the Religious/Spiritual Coping Short Form-Situational (RCOPE) Spiritual Conservation and Spiritual Struggle Subscales

Scale/ Subscales	Total	Autonomy	Environmental Mastery	Positive Relations	Personal Growth	Purpose in Life	Self-Acceptance
Spiritual Conservation	.05	.06	.01	.06	.05	.05	-.01
Low Engagement	-.10	.01	-.18	.01	-.07	-.14	-.10
High Engagement	.17	.13	.27*	.07	.05	.10	-.01
Low Anger	.20	.21	.05	.20	.17	.15	.09
High Anger	-.03	.06	-.00	-.01	-.08	-.08	-.03
Spiritual Struggle	-.42**	-.17	-.43**	-.31**	-.37	-.38**	-.40**
Low Engagement	-.58**	-.24*	-.01**	-.37**	-.50**	-.53**	-.52**
High Engagement	-.16	.03	-.14	-.13	-.18	-.26	-.13
Low Anger	-.45**	-.14	-.43**	-.28*	-.42**	-.52**	-.48**
High Anger	-.32*	-.08	-.42**	-.26*	-.30*	-.30*	-.21

**p = .01 (2-tailed) *p = .05 (2-tailed)

Table 4.3. ANOVA for Low and High Engagement Views of God for Ryff's Scales of Psychological Well-Being, Fear of Recurrence (Concerns about Recurrence Scale), and Depression Anxiety Stress Scale (DASS)

Measure	Image of God (Engaged)		F	p
	Low	High		
	Mean ± SD	Mean ± SD		
Ryff SPWB Total	393.07 ± 50.15	415.52 ± 46.11	5.36 (1, 127)	.01
Fear of Recurrence	12.20 ± 6.08	9.95 ± 4.67	6.87 (1, 127)	.02
DASS Stress	12.23 ± 9.63	8.66 ± 6.89	5.61 (1, 126)	.02
DASS Anxiety	5.49 ± 6.88	4.86 ± 4.62	.35 (1, 126)	.56
DASS Depression	6.97 ± 9.01	4.66 ± 7.00	2.56 (1, 126)	.11

CHAPTER FIVE

Conclusions and Discussion

The purposes of this dissertation were to: 1) review current research on religion/spirituality and psychological adjustment in women with breast cancer; 2) analyze the psychometric properties of the Image of God Scale (IGS) in women responding to a crisis event, a cancer diagnosis; and 3) examine the relationships between view of God, religious coping strategies, and psychological adjustment in women with breast cancer. In this dissertation three studies were presented.

The first paper presented a systematic literature review of published research manuscripts that reported data on the relationships between religion/spirituality and psychological adjustment in women with breast cancer. The review revealed relationships between religion/spirituality and psychological adjustment; however analysis of directionality, mediation, or moderation effects was included in only a few studies (Carver et al., 1993; Meraviglia, 2006; Romero et al., 2006; Stanton et al., 2002). The lack of a conceptual or theoretical framework guiding the research was a significant weakness in the studies reviewed. Without a framework, questions arise regarding why particular instruments were chosen as the measures of religion/spirituality and psychological adjustment. Tangible, useful conclusions based on study results that can guide future research and development of interventions are difficult to establish without a sound framework. As a result, current literature does not provide a clear understanding of the specific who, what or why religion/spirituality affects psychological adjustment.

The psychometric property analysis of the Image of God Scale (IGS) presented in Chapter Three confirmed the reliability and factor construction of the scale in a population experiencing a life crisis, specifically women with breast cancer. Tests of discriminate and convergent validity supported the distinction of the IGS from measures of religious/spiritual coping and psychological

adjustment. This instrument is a distinct measure of how people view the depth and character of God's involvement with individuals and the world. This distinctive measure of the view of God provides an approach to classify people in a meaningful, measureable way that transcends sects, denominations, and potentially religions.

The relationships between view of God, religious/spiritual coping strategies, and psychological adjustment in this study were reported in Chapter Four. The data supported the hypothesis that, among breast cancer survivors, when the IGS was used as a means of classification, differences in religious/spiritual coping, psychological adjustment, and fear of recurrence were identified. View of God classifications allowed comparisons of groups of women with similar views independent of their specified religious affiliations.

No significant relationships were identified between psychological well-being and Spiritual Conservation focused coping strategies based on views of God. Conversely, there were moderate to strong significant inverse relationship between psychological well-being and Spiritual Struggle focused coping strategies. One significant exception was that there were absolutely no correlations between psychological well-being and Spiritual Struggle focused coping strategies for women who viewed God as highly engaged. Comparisons between women who viewed God as highly engaged or not engaged showed that those that believed in a highly engaged God had significantly higher psychological well-being, less fear of recurrence, and less stress. There were no differences in psychological well-being, concern about recurrence and psychological distress for women based on views of God as highly angry or not. Spiritual struggle, as described by Pargament, can result in either transformation and growth or disengagement leading to psychological distress (Pargament, 2007). Psychological well-being was not diminished by the use of Spiritual Struggle focused coping strategies for women who viewed God as highly engaged, suggesting that belief in a God who is engaged is a protective factor in psychological adjustment to a life crisis.

A person's view of God is the basis for their worldview. The lens through which each person views life events is based on a set of assumptions on how and why the world around them functions. The belief, or not, that God exists is the ultimate answer for the question - what is really real. For those that believe in a God or gods or for those that believe in mankind or nature as the source of reality, the perceived character of God or man forms the basis for working assumptions of how the world functions.

The establishment of a meaningful and measurable classification system based on a view of God as opposed to religious affiliation could transform research in the religion/spirituality arena. Current measures of classification by religious affiliation have not demonstrated strong utility for comparison purposes. Significant differences in survey responses for a general population were noted when the respondents were grouped by view of God versus broad religious affiliations (Bader et al., 2006). In the systematic review presented in this dissertation, religious affiliation made no difference in psychological well-being in one study (Gall et al., 2000), and was associated with differences in religious coping strategies but not in psychological well-being in another (Zwingmann et al., 2008). In the present study, view of God, specifically that of a highly engaged God, emerged as a factor potentially moderating the impact of specific religious coping strategies.

Future research using the IGS to classify participants based on their view of God across more diverse cancer populations, multiple regions of the United States and internationally, and across various monotheistic, polytheistic, and deistic groups is needed to determine whether view of God is a meaningful and measureable method for conceptually comparing religious/spiritual beliefs. Religious/spiritual research must strive to: 1) develop a meaningful, measureable method for classifying people based on similar perceptions of God that form the basis of worldviews; 2) identify key elements of religion/spirituality that significantly affect psychological adjustment; and 3) identify why particular coping

styles result in psychological well-being for some and psychological distress for others.

Religion/spirituality encompasses a vast assortment of concepts, behaviors, rituals, and definitions. The core concept underlying any discussion of religion/spirituality is God. Views of God are quite personal and influenced by multiple factors throughout life. Progress towards understanding the specific roles of religion/spirituality in coping and adjustment to life events is limited by the difficulty in conceptualizing it in a way that is transferrable across populations – gender, race, religion, disease, or crisis event. Based on the results of this study, view of God as measured by the IGS is a conceptual framework that may function across populations thereby allowing for comparisons of consistently similar groups.

Appendix A

Image of God Scale (IGS)

(Bader et al., 2006)

Image of God Scale

Even if you might not believe in God, based on your personal understanding, what do you think God is like?

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Removed from worldly affairs.	1	2	3	4	5
2. Removed from my personal affairs.	1	2	3	4	5
3. Concerned with the well-being of the world.	1	2	3	4	5
4. Concerned with my personal well-being.	1	2	3	4	5
5. Angered by human sin.	1	2	3	4	5
6. Angered by my sins	1	2	3	4	5
7. Directly involved in worldly affairs.	1	2	3	4	5
8. Directly involved in my affairs.	1	2	3	4	5

How well do you feel that each of the following words describe God?

	Very Well	Somewhat Well	Undecided	Not very Well	Not at all
1. Critical	1	2	3	4	5
2. Distant	1	2	3	4	5
3. Ever-present	1	2	3	4	5
4. Punishing	1	2	3	4	5
5. Severe	1	2	3	4	5
6. Wrathful	1	2	3	4	5

Appendix B

Ryff''s Scales of Psychological Well-Being

(Ryff, 1989)

The following set of questions deals with how you feel about yourself and your life. Please remember that there is no right or wrong answer.

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
1. Most people see me as loving and affectionate.	1	2	3	4	5	6
2. Sometimes I change the way I act or think to be more like those around me.	1	2	3	4	5	6
3. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
4. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
5. I feel good when I think of what I've done in the past and what I hope to do in the future.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
8. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.	1	2	3	4	5	6
9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. In general, I feel that I continue to learn more about myself as time goes by.	1	2	3	4	5	6
11. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
12. In general, I feel confident and positive about myself.	1	2	3	4	5	6
13. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
14. My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
15. I do not fit very well with the people and the community around me.	1	2	3	4	5	6
16. I am the kind of person who likes to give new things a try.	1	2	3	4	5	6
17. I tend to focus on the present, because the future nearly always brings me problems.	1	2	3	4	5	6
18. I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
19. I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6
20. I tend to worry about what other people think of me.	1	2	3	4	5	6
21. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
22. I don't want to try new ways of doing things - my life is fine the way it is.	1	2	3	4	5	6
23. I have a sense of direction and purpose in life.	1	2	3	4	5	6
24. Given the opportunity, there are many things about myself that I would change.	1	2	3	4	5	6
25. It is important to me to be a good listener when close friends talk to me about their problems.	1	2	3	4	5	6
26. Being happy with myself is more important to me than having others approve of me.	1	2	3	4	5	6
27. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
28. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
29. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
30. I like most aspects of my personality.	1	2	3	4	5	6
31. I don't have many people who want to listen when I need to talk.	1	2	3	4	5	6
32. I tend to be influenced by people with strong opinions.	1	2	3	4	5	6
33. If I were unhappy with my living situation, I would take effective steps to change it.	1	2	3	4	5	6
34. When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6
35. I don't have a good sense of what it is I'm trying to accomplish in life.	1	2	3	4	5	6
36. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6
37. I feel like I get a lot out of my friendships.	1	2	3	4	5	6
38. People rarely talk to me into doing things I don't want to do.	1	2	3	4	5	6
39. I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6
40. In my view, people of every age are able to continue growing and developing.	1	2	3	4	5	6
41. I used to set goals for myself, but that now seems like a waste of time.	1	2	3	4	5	6
42. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
43. It seems to me that most other people have more friends than I do.	1	2	3	4	5	6
44. It is more important to me to "fit in" with others than to stand alone on my principles.	1	2	3	4	5	6
45. I find it stressful that I can't keep up with all of the things I have to do each day.	1	2	3	4	5	6
46. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.	1	2	3	4	5	6
47. I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
48. For the most part, I am proud of who I am and the life I lead.	1	2	3	4	5	6
49. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
50. I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
51. I am good at juggling my time so that I can fit everything in that needs to be done.	1	2	3	4	5	6
52. I have a sense that I have developed a lot as a person over time.	1	2	3	4	5	6
53. I am an active person in carrying out the plans I set for myself.	1	2	3	4	5	6
54. I envy many people for the lives they lead.	1	2	3	4	5	6
55. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
56. It's difficult for me to voice my own opinions on controversial matters.	1	2	3	4	5	6
57. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.	1	2	3	4	5	6
58. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
59. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
60. My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
61. I often feel as if I'm on the outside looking in when it comes to friendships.	1	2	3	4	5	6
62. I often change my mind about decisions if my friends or family disagree.	1	2	3	4	5	6
63. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.	1	2	3	4	5	6
64. For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6
65. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
66. Many days I wake up feeling discouraged about how I have lived my life.	1	2	3	4	5	6
67. I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
68. I am not the kind of person who gives in to social pressures to think or act in certain ways.	**1**	**2**	**3**	**4**	**5**	**6**

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
69. My efforts to find the kinds of activities and relationships that I need have been quite successful.	1	2	3	4	5	6
70. I enjoy seeing how my views have changed and matured over the years.	1	2	3	4	5	6
71. My aims in life have been more a source of satisfaction than frustration to me.	1	2	3	4	5	6
72. The past had its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6
73. I find it difficult to really open up when I talk with others.	1	2	3	4	5	6
74. I am concerned about how other people evaluate the choices I have made in my life.	1	2	3	4	5	6
75. I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
76. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
77. I find it satisfying to think about what I have accomplished in life.	1	2	3	4	5	6
78. When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6
79. My friends and I sympathize with each other's problems.	1	2	3	4	5	6
80. I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
81. I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
82. There is truth to the saying that you can't teach an old dog new tricks.	1	2	3	4	5	6
83. In the final analysis, I'm not so sure that my life adds up to much.	1	2	3	4	5	6
84. Everyone has their weaknesses, but I seem to have more than my share.	1	2	3	4	5	6

Appendix C

Depression Anxiety and Stress Scale (DASS)

(Lovibond & Lovibond, 1995)

DASS21

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

Appendix D

Brief Religious/Spiritual Coping (BriefRCOPE)

(Pargament, Koenig, & Perez, 2000)

Instructions (Dispositional):

Think about how you try to understand and deal with major problems in your life. To what extent is each involved in the way you cope?

	A great deal	Quite a bit	Some-what	Not at all
1. I think about how my life is part of a larger spiritual force.	1	2	3	4
2. I work together with God as partners to get through hard times.	1	2	3	4
3. I look to God for strength, support, and guidance in crises.	1	2	3	4
4. I feel that stressful situations are God's way of punishing me for my sins or lack of spirituality.	1	2	3	4
5. I wonder whether God has abandoned me.	1	2	3	4
6. I try to make sense of the situation and decide what to do without relying on God.	1	2	3	4

	Very involved	Somewh at involved	Not very involved	Not involved at all
7. To what extent is your religion involved in understanding or dealing with stressful situations in any way?	1	2	3	4

Appendix E

Religious/Spiritual Coping (RCOPE)

(Pargament, Koenig, & Perez, 2000)

Religious/Spiritual Coping Short Form

Instructions (Situational):

The following items deal with ways you coped with the negative event in your life. There are many way to try to deal with problems. These items ask what you did to cope with this negative event. Obviously different people deal with things in different ways, but we are interested in how you tried to deal with it. Each item says something about a particular way of coping. We want to know to what extent you did what the item says. How much or how frequently? Don't answer on the basis of what worked or not – just whether or not you did it. Use these choices. Try to rate each item separately in your mind from the other. Make your answers as true FOR YOU as you can. Check the answer that best applies to you.

	A great deal	Quite a bit	Some-what	Not at all
1. Saw my situation as part of God's plan.	1	2	3	4
2. Tried to find a lesson from God in the event.	1	2	3	4
3. Tried to see how God might be trying to strengthen me in this situation.	1	2	3	4
4. Wondered what I did for God to punish me.	1	2	3	4
5. Decided that God was punishing me for my sins.	1	2	3	4
6. Felt punished by God for my lack of devotion.	1	2	3	4
7. Believed the Devil was responsible for my situation.	1	2	3	4
8. Felt the situation was the work of the Devil.	1	2	3	4
9. Decided the Devil made this happen.	1	2	3	4
10. Questioned the power of God.	1	2	3	4
11. Thought that some things are beyond God's control.	1	2	3	4
12. Realized that God cannot answer all of my prayers.	1	2	3	4
13. Tried to put my plans into action together with God.	1	2	3	4
14. Worked together with God as partners.	1	2	3	4
15. Tried to make sense of the situation with God.	1	2	3	4

	A great deal	Quite a bit	Some-what	Not at all
16. Did my best and then turned the situation over to God.	1	2	3	4
17. Did what I could and put the rest in God's hands.	1	2	3	4
18. Took control over what I could, and gave the rest up to God.	1	2	3	4
19. Didn't do much, just expected God solve my problems for me.	1	2	3	4
20. Didn't try much of anything; simply expected God to take control.	1	2	3	4
21. Didn't try to cope; only expected God to take my worries away.	1	2	3	4
22. Pleaded with God to make things turn out okay.	1	2	3	4
23. Prayed for a miracle.	1	2	3	4
24. Bargained with God to make things better.	1	2	3	4
25. Tried to deal with my feelings without God's help.	1	2	3	4
26. Tried to make sense of the situation without relying on God.	1	2	3	4
27. Made decisions about what to do without God's help.	1	2	3	4
28. Sought God's love and care.	1	2	3	4
29. Trusted that God would be by my side.	1	2	3	4
30. Looked to God for strength, support, and guidance.	1	2	3	4
31. Prayed to get my mind off of my problems.	1	2	3	4
32. Thought about spiritual matters to stop thinking about my problems.	1	2	3	4
33. Focused on religion to stop worrying about my problems.	1	2	3	4
34. Confessed my sins.	1	2	3	4
35. Asked forgiveness for my sins.	1	2	3	4
36. Tried to be less sinful.	1	2	3	4
37. Looked for a stronger connection with God.	1	2	3	4
38. Sought a stronger spiritual connection with other people.	1	2	3	4
39. Thought about how my life is part of a larger spiritual force.	1	2	3	4
40. Wondered whether God had abandoned me.	1	2	3	4
41. Voiced anger that God didn't answer my prayers.	1	2	3	4
42. Questioned God's love for me.	1	2	3	4
43. Avoided people who weren't of my faith.	1	2	3	4
44. Stuck to the teachings and practices of my religion.	1	2	3	4
45. Ignored advice that was inconsistent with my faith.	1	2	3	4

	A great deal	Quite a bit	Some-what	Not at all
46. Looked for spiritual support from clergy.	1	2	3	4
47. Asked others to pray for me.	1	2	3	4
48. Looked for love and concern from the members of my church.	1	2	3	4
49. Prayed for the well-being of others.	1	2	3	4
50. Offered spiritual support to family or friends.	1	2	3	4
51. Tried to give spiritual strength to others.	1	2	3	4
52. Disagreed with what the church wanted me to do or believe.	1	2	3	4
53. Felt dissatisfaction with the clergy.	1	2	3	4
54. Wondered whether my church had abandoned me.	1	2	3	4
55. Asked God to help me find a new purpose in life.	1	2	3	4
56. Prayed to find a new reason to live.	1	2	3	4
57. Prayed to discover my purpose in living.	1	2	3	4
58. Tried to find a completely new life through religion.	1	2	3	4
59. Looked for a total spiritual reawakening.	1	2	3	4
60. Prayed for a complete transformation of my life.	1	2	3	4
61. Sought help from God in letting go of my anger.	1	2	3	4
62. Asked God to help me overcome my bitterness.	1	2	3	4
63. Sought God's help in trying to forgive others.	1	2	3	4

Appendix F

Overall Fear

Concerns about Recurrence Scale

(Vickberg, 2003)

Concerns about Recurrence

The following questions ask you to tell us about any worries you may have about the possibility of breast cancer recurrence. By recurrence we mean the breast cancer coming back in the same breast or another area of the body, or a new breast cancer in either breast.

Although most women who have been diagnosed with early stage breast cancer will never have another problem with the cancer, we are aware that many women do worry about this possibility. Other women may not worry about recurrence at all. Either way, your answers to these questions are very important to us. We understand that it may be upsetting to think about or answer questions about the possibility of recurrence. However, we need your help to understand how women think about this possibility.

For the following four questions please circle the number that comes closest to the way you feel. For example, for the first question you should circle "1" if you don't think about recurrence at all, circle "6" if you think about recurrence all the time, or circle "2", "3", "4", or "5" if the amount of time you spend thinking about recurrence is somewhere in between.

1. How much time do you spend thinking about the possibility that your breast cancer could recur?

1	2	3	4	5	6
I Don't Think About It At All					*I Think About It All The Time*

2. How much does the possibility that your breast cancer could recur upset you?

1	2	3	4	5	6
I Don't Think About It At All					*I Think About It All The Time*

3. How often do you worry about the possibility that your breast cancer could recur?

1	2	3	4	5	6
I Don't Think About It At All					*I Think About It All The Time*

4. How afraid are you that your breast cancer may recur?

1	2	3	4	5	6
I Don't Think About It At All					*I Think About It All The Time*

Chapter One

References

Albaugh, J. A. (2003). Spirituality and life-threatening illness: A phenomenologic study. *Oncology Nursing Forum, 30*(4), 593-598.

American Cancer Society (ACS). (2007). *Cancer facts & figures, 2007*. Atlanta: American Cancer Society.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480.

Antoni, M. H., Lutgendorf, S. K., Cole, S. W., Dhabhar, F. S., Sephton, S. E., McDonald, P. G., et al. (2006). The influence of bio-behavioural factors on tumour biology: Pathways and mechanisms. *National Review of Cancer, 6*(3), 240-248.

Archer, M. S., Collier, A., & Porpora, D. V. (2004). *Transcendence: Critical realism and God*. London: Routledge.

Aspinwall, L. G., & MacNamara, A. (2005). Taking positive changes seriously - Toward a positive psychology of cancer survivorship and resilience. *Cancer, 104*(11), 2549-2556.

Bader, C. (2007). Baylor religion survey: Image of God scales. In J. A. Schreiber (Ed.) (e-mail). Waco, TX.

Bader, C., Dogherty, K., Froese, P., Johnson, B., Mencken, F. C., Park, J. Z., et al. (2006). *American Piety in the 21st Century: New Insight to the Depth and Complexity of Religion in the US*. Waco, TX: Baylor Institute for Studies of Religion.

Bader, C., & Froese, P. (2005). Images of God: The effect of personal theologies on moral attitudes, political affiliations, and religious behavior. *Interdisciplinary Journal of Research on Religion, 1*(Article 11), 1-24. Retrieved from www.religjournal.com

Baker, D. C. (2003). Studies of the inner life: The impact of spirituality on quality of life. *Quality of Life Research, 12 Supplement 1*, 51-57.

Baker, F., Denniston, M., Smith, T., & West, M. M. (2005). Adult cancer survivors: How are they faring? *Cancer, 104*(11), 2565-2576.

Baldacchino, D., & Draper, P. (2001). Spiritual coping strategies: A review of the nursing research literature. *Journal of Advanced Nursing, 34*(6), 833-841.

Barg, F. K., Cronholm, P. F., Straton, J. B., Keddem, S., Knott, K., Grater, J., et al. (2007). Unmet psychosocial needs of Pennsylvanians with cancer: 1986-2005. *Cancer, 110*(3), 631-639.

Boehmke, M. M., & Dickerson, S. S. (2006). The diagnosis of breast cancer: Transition from health to illness. *Oncology Nursing Forum, 33*(6), 1121-1127.

Bower, J. E., Meyerowitz, B. E., Desmond, K. A., Bernaards, C. A., Rowland, J. H., & Ganz, P. A. (2005). Perceptions of positive meaning and vulnerability following breast cancer: Predictors and outcomes among long-term breast cancer survivors. *Annals of Behavioral Medicine, 29*(3), 236-245.

Bowman, K. F., Deimling, G. T., Smerglia, V., Sage, P., & Kahana, B. (2003). Appraisal of the cancer experience by older long-term survivors. *Psycho-Oncology, 12*(3), 226-238.

Brown, K. W., Levy, A. R., Rosberger, Z., & Edgar, L. (2003). Psychological distress and cancer survival: A follow-up 10 years after diagnosis. *Psychosomatic Medicine, 65*(4), 636-643.

Carvalho, J. J. (2006). Overview of the structure of a scientific worldview. *Zygon®, 41*(1), 113-124.

Carver, C. S. (2005). Enhancing adaptation during treatment and the role of individual differences. *Cancer, 104*(11), 2602-2607.

Carver, C. S., & Scheier, M. F. (2004). *Perspectives on personality* (5th ed.). Boston: Allyn & Bacon.

Carver, C. S., Smith, R. G., Antoni, M. H., Petronis, V. M., Weiss, S., & Derhagopian, R. P. (2005). Optimistic personality and psychosocial well-being during treatment predict psychosocial well-being among long-term survivors of breast cancer. *Health Psychology, 24*(5), 508-516.

Chan, C. L., Ng, S. M., Ho, R. T., & Chow, A. Y. (2006). East meets West: Applying Eastern spirituality in clinical practice. *Journal of Clinical Nursing, 15*(7), 822-832.

Cotton, S. P., Levine, E. G., Fitzpatrick, C. M., Dold, K. H., & Targ, E. (1999). Exploring the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. *Psycho-Oncology, 8*(5), 429-438.

Deimling, G. T., Bowman, K. F., Sterns, S., Wagner, L. J., & Kahana, B. (2006). Cancer-related health worries and psychological distress among older adult, long-term cancer survivors. *Psycho-Oncology, 15*(4), 306-320.

Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion, 10*(1), 3.

Emmons, R. A., Cheung, C., & Tehrani, K. (1998). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social Indicators Research, 45*, 391-422.

Fabricatore, A. N., Handal, P. J., Rubio, D. M., & Gilner, F. H. (2004). Stress, religion, and mental health: Religious coping in mediating and moderating roles. *The International Journal for the Psychology of Religion, 14*(2), 91-108.

Ferrell, B. R., Dow, K. H., Leigh, S., Ly, J., & Gulasekaram, P. (1995). Quality of life in long-term cancer survivors. *Oncology Nursing Forum, 22*(6), 915-922.

Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science & Medicine, 45*(8), 1207-1221.

Frankl, V. E. (1978). *The unheard cry for meaning: Psychotherapy and humaninism*. New York: Simon & Schuster.

Friedman, L. C., Kalidas, M., Elledge, R., Chang, J., Romero, C., Husain, I., et al. (2006). Optimism, social support and psychosocial functioning among women with breast cancer. *Psycho-Oncology, 15*(7), 595-603.

Froese, P., & Bader, C. D. (2007). God in America: Why theology is not simply the concern of philosophers. *Journal for the Scientific Study of Religion, 46*(4), 465-481.

Gall, T. L. (2004). The role of religious coping in adjustment to prostate cancer. *Cancer Nursing, 27*(6), 454-461.

Gall, T. L., & Cornblat, M. W. (2002). Breast cancer survivors give voice: A qualitative analysis of spiritual factors in long-term adjustment. *Psycho-Oncology, 11*(6), 524-535.

Garssen, B. (2004). Psychological factors and cancer development: Evidence after 30 years of research. *Clinical Psychological Review, 24*(3), 315-338.

Institute of Medicine (IOM), (2007). *Cancer care for the whole patient: Meeting psychosocial health needs*. Washington, D.C.: The National Academies Press.

Johnson Vickberg, S. M., Duhamel, K. N., Smith, M. Y., Manne, S. L., Winkel, G., Papadopoulos, E. B., et al. (2001). Global meaning and psychological adjustment among survivors of bone marrow transplant. *Psycho-Oncology, 10*(1), 29-39.

Kissane, D. W., Grabsch, B., Love, A., Clarke, D. M., Bloch, S., & Smith, G. C. (2004). Psychiatric disorder in women with early stage and advanced breast cancer: A comparative analysis. *Australian New Zealand Journal of Psychiatry, 38*(5), 320-326.

Koenig, H. G. (2004). Religion, spirituality, and medicine: Research findings and implications for clinical practice. *Southern Medical Journal, 97*(12), 1194-1200.

Koltko-Rivera, M. E. (2004). The psychology of worldviews. *Review of General Psychology, 8*(1), 3-58.

Kreitler, S., Peleg, D., & Ehrenfeld, M. (2007). Stress, self-efficacy and quality of life in cancer patients. *Psycho-Oncology, 16*(4), 329-341.

Landmark, B. T., Strandmark, M., & Wahl, A. K. (2001). Living with newly diagnosed breast cancer - the meaning of existential issues. A qualitative study of 10 women with newly diagnosed breast cancer, based on grounded theory. *Cancer Nursing, 24*(3), 220-226.

Lee, V., Cohen, S. R., Edgar, L., Laizner, A. M., & Gagnon, A. J. (2004). Clarifying "meaning" in the context of cancer research: A systematic literature review. *Palliative & Supportive Care, 2*(3), 291-303.

Leibniz, G. W. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Manning-Walsh, J. K. (2005). Psychospiritual well-being and symptom distress in women with breast cancer. *Oncology Nursing Forum, 31*(3), E56-E62.

Maynard, E. A., Gorsuch, R. L., & Bjorck, J. P. (2001). Religious coping style, concept of God, and personal religious variables in threat, loss, and challenge situations. *Journal for the Scientific Study of Religion, 40*(1), 65-74.

McKenna, M. C., Zevon, M. A., Corn, B., & Rounds, J. (1999). Psychosocial factors and the development of breast cancer: A meta-analysis. *Health Psychology, 18*(5), 520-531.

McSherry, W., & Cash, K. (2004). The language of spirituality: An emerging taxonomy. *International Journal of Nursing Studies, 41*(2), 151-161.

Meraviglia, M. (2006). Effects of spirituality in breast cancer survivors. *Oncology Nursing Forum, 33*(1), E1-7.

Merriman-Webster (2007). Merriman-Webster online dictionary. Retrieved November 30, 2997: http://www.m-w.com/dictionary/ism

Montgomery, G. H., David, D., Goldfarb, A. B., Silverstein, J. H., Weltz, C. R., Birk, J. S., et al. (2003). Sources of anticipatory distress among breast surgery patients. *Journal of Behavioral Medicine, 26*(2), 153-164.

Morgan, P. D., Gaston-Johansson, F., & Mock, V. (2006). Spiritual well-being, religious coping, and the quality of life of African American breast cancer treatment: A pilot study. *ABNF Journal, 17*(2), 73.

Nordin, K., Berglund, G., Glimelius, B., & Sjoden, P. O. (2001). Predicting anxiety and depression among cancer patients: A clinical model. *European Journal of Cancer, 37*(3), 376-384.

Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York: The Guildford Press.

Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*(4), 519-543.

Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues, 61*(4), 665-687.

Pargament, K. I., Zinnbauer, B. J., Scott, A. B., Butter, E. M., Zerowin, J., & Stanik, P. (1998). Red flags and religions coping: Identifying some religious warning signs among people in crisis. *Journal of Clinical Psychology, 54*(1), 77-89.

Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues, 61*(4), 707-729.

Petticrew, M., Bell, R., & Hunter, D. (2002). Influence of psychological coping on survival and recurrence in people with cancer: Systematic review. *British Medical Journal, 325*(7372), 1066.

Reker, G. T., & Chamberlain, K. (2000). *Exploring existential meaning: Optimizing human development across the life span*. Thousand Oaks, CA: Sage Publications.

Schou, I., Ekeberg, O., & Ruland, C. M. (2005). The mediating role of appraisal and coping in the relationship between optimism-pessimism and quality of life. *Psycho-Oncology, 14*(9), 718-727.

Spinoza, B. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Stanton, A. L., Danoff-Burg, S., & Huggins, M. E. (2002). The first year after breast cancer diagnosis: Hope and coping strategies as predictors of adjustment. *Psycho-Oncology, 11*(2), 93-102.

Stanton, A. L., Ganz, P. A., Rowland, J. H., Meyerowitz, B. E., Krupnick, J. L., & Sears, S. R. (2005). Promoting adjustment after treatment for cancer. *Cancer, 104*(11), 2608-2613.

Stark, R. (1999). Atheism, faith, and the social scientific study of religion. *Journal of Contemporary Religion, 14*(1), 41-62.

Stark, R., Hamberg, E., & Miller, A.S. (2005). Exploring spirituality and unchurched religions in America, Sweden, and Japan. *Journal of Contemporary Religion, 20*(1), 3-23.

Thune-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., & Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Social Science & Medicine, 63*(1), 151.

Urcuyo, K. R., Boyers, A. E., Carver, C. S., & Antoni, M. H. (2005). Finding benefit in breast cancer: Relations with personality, coping, and concurrent well-being. *Psychology and Health, 20*(2), 175-192.

Vidal, C. (Ed.). (2008). *What is a worldview?* Acco,NL: Leuven.

Wonghongkul, T., Dechaprom, N., Phumivichuvate, L., & Losawatkul, S. (2006). Uncertainty appraisal coping and quality of life in breast cancer survivors. *Cancer Nursing, 29*(3), 250-257.

Yu, C. L., Fielding, R., & Chan, C. L. (2003). The mediating role of optimism on post-radiation quality of life in nasopharyngeal carcinoma. *Quality of Life Research, 12*(1), 41-51.

Zwingmann, C., Wirtz, M., Müller, C., Körber, J., & Murken, S. (2006). Positive and negative religious coping in German breast cancer patients. *Journal of Behavioral Medicine, 29*(6), 533-547.

Chapter Two

References

Albaugh, J. A. (2003). Spirituality and life-threatening illness: A phenomenologic study. *Oncology Nursing Forum, 30*(4), 593-598.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480.

Bauer-Wu, S., & Farran, C. J. (2005). Meaning in life and psycho-spiritual functioning: A comparison of breast cancer survivors and healthy women. *Journal of Holistic Nursing, 23*(2), 172-190.

Bloom, J. R., Stewart, S. L., Subo Chang, S. L., & Banks, P. J. (2004). Then and now: Quality of life of young breast cancer survivors, *Psycho-Oncology*: *13*(3), 147-160.

Boehmke, M. M., & Dickerson, S. S. (2006). The diagnosis of breast cancer: Transition from health to illness. *Oncology Nursing Forum, 33*(6), 1121-1127.

Carone, D. A., Jr., & Barone, D. F. (2001). A social cognitive perspective on religious beliefs: Their functions and impact on coping and psychotherapy. *Clinical Psychology Review, 21*(7), 989-1003.

Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., et al. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology, 65*(2), 375-390.

Choumanova, I., Wanat, S., Barrett, R., & Koopman, C. (2006). Religion and spirituality in coping with breast cancer: Perspectives of Chilean women. *Breast Journal, 12*(4), 349-352.

Cordova, M. J., Cunningham, L. L. C., Carlson, C. R., & Andrykowski, M. A. (2001). Posttraumatic Growth Following Breast Cancer: A Controlled Comparison Study. *Health Psychology, 20*(3), 176-185.

Cotton, S. P., Levine, E. G., Fitzpatrick, C. M., Dold, K. H., & Targ, E. (1999). Exploring the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. *Psycho-Oncology, 8*(5), 429-438.

Coward, D. D., & Kahn, D. L. (2004). Resolution of spiritual disequilibrium by women newly diagnosed with breast cancer. *Oncology Nursing Forum, 31*(2), E24-31.

Efficace, F., & Marrone, R. (2002). Spiritual issues and quality of life assessment in cancer care. *Death Studies, 26*(9), 743-756.

Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning, and religion. *Journal of Social Issues, 61*(4), 731-745.

Emmons, R. A., & Paloutzian, R. F. (2003). The psychology of religion. *Annual Review of Psychology, 54*(1), 377-402.

Evangelista, L. S., Doering, L., & Dracup, K. (2003). Meaning and life purpose: The perspectives of post-transplant women. *Heart Lung, 32*(4), 250-257.

Feher, S., & Maly, R. C. (1999). Coping with breast cancer in later life: The role of religious faith. *Psycho-Oncology, 8*(5), 408-416.

Ferrell, B., Paice, J., & Koczywas, M. (2008). New standards and implications for improving the quality of supportive oncology practice. *Journal of Clinical Oncology, 26*(23), 3824-3831.

Ferrell, B. R., Dow, K. H., Leigh, S., Ly, J., & Gulasekaram, P. (1995). Quality of life in long-term cancer survivors. *Oncology Nursing Forum, 22*(6), 915-922.

Gall, T. L., & Cornblat, M. W. (2002). Breast cancer survivors give voice: A qualitative analysis of spiritual factors in long-term adjustment. *Psycho-Oncology, 11*(6), 524-535.

Gall, T. L., de Renart, R. M. M., & Boonstra, B. (2000). Religious resources in long-term adjustment to breast cancer. *Journal of Psychosocial Oncology, 18*(2), 21-37.

Gall, T. L., & Grant, K. (2005). Spiritual disposition and understanding illness. *Pastoral Psychology, 53*(6), 515-533.

Galvan, J. L. (2006). General guidelines for analyzing literature: *Writing literature reviews* (3rd ed., pp. 31-42). Glendale, CA: Pyrczak Publishing.

Gibson, L. M., & Hendricks, C. S. (2006). Integrative review of spirituality In African American breast cancer survivors, *ABNF Journal*: Tucker Publications, Inc.

Henri, G. (2007). Reassessing conventional approaches to conversion: Toward a new synthesis. *Journal for the Scientific Study of Religion, 46*(3), 337-353.

Hill, P. C., & Hood, R. W. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.

Institute of Medicine. (2007). *Cancer care for the whole patient: Meeting psychosocial health needs*. Washington, DC: Institute of Medicine.

Jim, H. S., Richardson, S. A., Golden-Kreutz, D. M., & Andersen, B. L. (2006). Strategies used in coping with a cancer diagnosis predict meaning in life for survivors. *Health Psychology, 25*(6), 753-761.

Kahn, P. J., & Greene, A. L. (2004). Seeing conversion whole: Testing a model of religious conversion. *Pastoral Psychology, 52*(3), 233-258.

Kreitler, S., Peleg, D., & Ehrenfeld, M. (2007). Stress, self-efficacy and quality of life in cancer patients. *Psycho-Oncology, 16*(4), 329-341.

Landmark, B. T., Strandmark, M., & Wahl, A. K. (2001). Living with newly diagnosed breast cancer--the meaning of existential issues. A qualitative study of 10 women with newly diagnosed breast cancer, based on grounded theory. *Cancer Nursing, 24*(3), 220-226.

Lang, F., Floyd, M. R., & Beine, K. L. (2000). Clues to patients' explanations and concerns about their illnesses. A call for active listening. *Archives of Family Medicine, 9*(3), 222-227.

Lin, H. R., & Bauer-Wu, S. M. (2003). Psycho-spiritual well-being in patients with advanced cancer: An integrative review of the literature. *Journal of Advanced Nursing, 44*(1), 69-80.

Manning-Walsh, J. (2005). Social support as a mediator between symptom distress and quality of life in women with breast cancer. *JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing, 34*(4), 482-493.

McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality, 63*(3): 365-396.

McCabe, M. S., & Jacobs, L. (2008). Survivorship care: Models and programs. *Seminars in Oncology Nursing, 24*(3), 202-207.

McGrath, P. (2002). Creating a language for 'spiritual pain' through research: A beginning. *Supportive Care Cancer, 10*(8), 637-646.

Meraviglia, M. (2006). Effects of spirituality in breast cancer survivors. *Oncology Nursing Forum, 33*(1), E1-7.

Morgan, P. D., Gaston-Johansson, F., & Mock, V. (2006). Spiritual well-being, religious coping, and the quality of life of African American breast cancer tTreatment: A pilot study. *ABNF Journal, 17*(2), 73-77.

National Health Service, (2009). Appraisal Tools Retrieved April 28, 2009, from http://www.phru.nhs.uk/Pages/PHD/resources.htm

Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York: The Guildford Press.

Pargament, K. I., Zinnbauer, B. J., Scott, A. B., Butter, E. M., Zerowin, J., & Stanik, P. (1998). Red flags and religious coping: Identifying some religious warning signs among people in crisis. *Journal of Clinical Psychology, 54*(1), 77-89.

Romero, C., Friedman, L. C., Kalidas, M., Elledge, R., Chang, J., Liscum, K. R., et al. (2006). Self-forgiveness, spirituality, and psychological adjustment in women with breast cancer. *Journal of Behavioral Medicine, 29*(1), 29-36.

Rowland, J. H., & Bellizzi, K. M. (2008). Cancer survivors and survivorship research: A reflection on today's successes and tomorrow's challenges. *Hematology Oncology Clinics of North America, 22*(2), 181-200.

Shaw, B., Han, J. Y., Kim, E., Gustafson, D., Hawkins, R., Cleary, J., et al. (2007). Effects of prayer and religious expression within computer support groups on women with breast cancer. *Psycho-Oncology, 16*(7), 676-687.

Stanton, A. L., Danoff-Burg, S., Cameron, C. L., Bishop, M., Collins, C. A., Kirk, S. B., et al. (2000). Emotionally expressive coping predicts psychological and physical adjustment to breast cancer. *Journal of Consultation & Clinical Psychology, 68*(5), 875-882.

Stanton, A. L., Danoff-Burg, S., & Huggins, M. E. (2002). The first year after breast cancer diagnosis: Hope and coping strategies as predictors of adjustment. *Psycho-Oncology, 11*(2), 93-102.

Targ, E. F., & Levine, E. G. (2002). The efficacy of a mind-body-spirit group for women with breast cancer: A randomized controlled trial. *General Hospital Psychiatry, 24*(4), 238-248.

Urcuyo, K. R., Boyers, A. E., Carver, C. S., & Antoni, M. H. (2005). Finding benefit in breast cancer: Relations with personality, coping, and concurrent well-being. *Psychology and Health, 20*(2), 175-192.

Wildes, K. A., Miller, A. R., San Miguel de Majors, S., & Ramirez, A. G. (2008). The religiousity/spirituality of Latina breast cancer survivors and influence on health-related quality of life. *Psycho-Oncology*. doi:10.1002/pon.1475

Wood, M. J. (2003). Systematic Literature Reviews. *Clinical Nursing Research, 12*(1), 3-7.

Zwingmann, C., Muller, C., Korber, J., & Murken, S. (2008). Religious commitment, religious coping and anxiety: A study in German patients with breast cancer. *European Journal of Cancer Care, 17*(4), 361-370.

Zwingmann, C., Wirtz, M., Müller, C., Körber, J., & Murken, S. (2006). Positive and Negative Religious Coping in German Breast Cancer Patients. *Journal of Behavioral Medicine, 29*(6), 533-547.

Chapter Three

References

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment, 10*(2), 176-181.

Bader, C. (2007). Baylor religion survey: Image of God scales. In J. A. Schreiber (Ed.) (e-mail). Waco, TX.

Bader, C., Dogherty, K., Froese, P., Johnson, B., Mencken, F. C., Park, J. Z., et al. (2006). *American Piety in the 21st Century: New Insight to the Depth and Complexity of Religion in the US*. Waco, TX: Baylor Institute for Studies of Religion.

Bader, C., & Froese, P. (2005). Images of God: The effect of personal theologies on moral attitudes, political affiliations, and religious behavior. *Interdisciplinary Journal of Research on Religion, 1*(Article 11), 1-24. Retrieved from www.religjournal.com

Brown, T. A., Chorpita, B. F., Korotitsch, W., & Barlow, D. H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. *Behaviour Research and Therapy, 35*(1), 79-89.

Crawford, J. R., & Henry, J. D. (2003). The Depression Anxiety Stress Scales (DASS): Normative data and latent structure in a large non-clinical sample. *British Journal of Clinical Psychology, 42*(2), 111-131.

Emmons, R. A., Cheung, C., & Tehrani, K. (1998). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social Indicators Research, 45*, 391-422.

Froese, P., & Bader, C. D. (2007). God in America: Why theology is not simply the concern of philosophers. *Journal for the Scientific Study of Religion, 46*(4), 465-481.

Gallup Poll. (2008). *State of the states: Importance of religion*. Princeton, NJ: Gallup.

Hill, P. C. (1995). Affective theory and religious experience. In R. W. Hood (Ed.), *Handbook of Religious Experience* (pp. 353-377). Birmingham, AL: Religious Education Press.

Hill, P. C., & Hood, R. W. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.

Holm, N. G. (1995). Role theory and religious experience. In R. W. Hood (Ed.), *Handbook of Religious Experience* (pp. 397-420). Birmingham, AL: Religious Education Press.

Leibniz, G. W. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd. ed.). Sydney: Psychology Foundation.

Maynard, E. A., Gorsuch, R. L., & Bjorck, J. P. (2001). Religious coping style, concept of God, and personal religious variables in threat, loss, and challenge situations. *Journal for the Scientific Study of Religion, 40*(1), 65-74.

Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*(4), 519-543.

Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: a two-year longitudinal study. *Journal of Health Psychology, 9*(6), 713-730.

Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues, 61*(4), 665-687.

Ryff, C. D. (1989). Happiness is everything, or is it - explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.

Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being revisited. *Journal of Personal Social Psychology, 69*(4), 719-727.

Spinoza, B. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Vickberg, S. M. J. (2003). The Concerns About Recurrence Scale (CARS): A systematic measure of women's fears about the possibility of breast cancer recurrence. *Annals of Behavioral Medicine, 25*(1), 16-24.

Wong-McDonald, A., & Gorsuch, R. L. (2004). A multivariate theory of God concept, religious motivation, locus of control, coping, and spiritual well-being. *Journal of Psychology and Theology, 32*(4), 318-334.

Chapter Four

References

Albaugh, J. A. (2003). Spirituality and life-threatening illness: A phenomenologic study. *Oncology Nursing Forum, 30*(4), 593-598.

American Cancer Society, (2007). *Cancer facts & figures, 2007*. Atlanta: American Cancer Society.

Andrykowski, M. A., Lykins, E., & Floyd, A. (2008). Psychological health in cancer survivors. *Seminars in Oncology Nursing, 24*(3), 193-201.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480.

Antoni, M. H., Lutgendorf, S. K., Cole, S. W., Dhabhar, F. S., Sephton, S. E., McDonald, P. G., et al. (2006). The influence of bio-behavioural factors on tumour biology: Pathways and mechanisms. *National Review of Cancer, 6*(3), 240-248.

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment, 10*(2), 176-181.

Archer, M. S., Collier, A., & Porpora, D. V. (2004). *Transcendence: Critical realism and God*. London: Routledge.

Aspinwall, L. G., & MacNamara, A. (2005). Taking positive changes seriously - toward a positive psychology of cancer survivorship and resilience. *Cancer, 104*(11), 2549-2556.

Bader, C. (2007). Baylor religion survey: Image of God scales. In J. A. Schreiber (Ed.) (e-mail ed.). Waco, TX.

Bader, C., Dogherty, K., Froese, P., Johnson, B., Mencken, F. C., Park, J. Z., et al. (2006). *American piety in the 21st century: New insight to the depth and complexity of religion in the US*. Waco, TX: Baylor Institute for Studies of Religion.

Bader, C., & Froese, P. (2005). Images of God: The effect of personal theologies on moral attitudes, political affiliations, and religious behavior. *Interdisciplinary Journal of Research on Religion, 1*(Article 11), 1-24. Retrieved from www.religjournal.com

Baker, D. C. (2003). Studies of the inner life: the impact of spirituality on quality of life. *Quality of Life Research, 12 Supplement 1*, 51-57.

Baker, F., Denniston, M., Smith, T., & West, M. M. (2005). Adult cancer survivors: How are they faring? *Cancer, 104*(11), 2565-2576.

Baldacchino, D., & Draper, P. (2001). Spiritual coping strategies: A review of the nursing research literature. *Journal of Advanced Nursing, 34*(6), 833-841.

Barg, F. K., Cronholm, P. F., Straton, J. B., Keddem, S., Knott, K., Grater, J., et al. (2007). Unmet psychosocial needs of Pennsylvanians with cancer: 1986-2005. *Cancer, 110*(3), 631-639.

Bauer-Wu, S., & Farran, C. J. (2005). Meaning in life and psycho-spiritual functioning: A comparison of breast cancer survivors and healthy women. *Journal of Holistic Nursing, 23*(2), 172-190.

Bjorck, J. P., & Thurman, J. W. (2007). Negative life events, patterns of positive and negative religious coping, and psychological functioning. *Journal for the Scientific Study of Religion, 46*(2), 159-167.

Bloom, J. R., Stewart, S. L., Subo Chang, S. L., & Banks, P. J. (2004). Then and now: Quality of life of young breast cancer survivors. *Psycho-Oncology*, *13*(3), 147-160.

Boehmke, M. M., & Dickerson, S. S. (2006). The diagnosis of breast cancer: Transition from health to illness. *Oncology Nursing Forum, 33*(6), 1121-1127.

Bower, J. E., Meyerowitz, B. E., Desmond, K. A., Bernaards, C. A., Rowland, J. H., & Ganz, P. A. (2005). Perceptions of positive meaning and vulnerability following breast cancer: Predictors and outcomes among long-term breast cancer survivors. *Annals of Behavioral Medicine, 29*(3), 236-245.

Bowman, K. F., Deimling, G. T., Smerglia, V., Sage, P., & Kahana, B. (2003). Appraisal of the cancer experience by older long-term survivors. *Psycho-Oncology, 12*(3), 226-238.

Brown, K. W., Levy, A. R., Rosberger, Z., & Edgar, L. (2003). Psychological distress and cancer survival: A follow-up 10 years after diagnosis. *Psychosomatic Medicine, 65*(4), 636-643.

Brown, T. A., Chorpita, B. F., Korotitsch, W., & Barlow, D. H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. *Behaviour Research and Therapy, 35*(1), 79-89.

Carone, D. A., Jr., & Barone, D. F. (2001). A social cognitive perspective on religious beliefs: Their functions and impact on coping and psychotherapy. *Clinical Psychology Review, 21*(7), 989-1003.

Carvalho, J. J. (2006). Overview of the structure of a scientific worldview. *Zygon®, 41*(1), 113-124.

Carver, C. S. (2005). Enhancing adaptation during treatment and the role of individual differences. *Cancer, 104*(11), 2602-2607.

Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., et al. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology, 65*(2), 375-390.

Carver, C. S., & Scheier, M. F. (2004). *Perspectives on personality* (5th ed.). Boston: Allyn & Bacon.

Carver, C. S., Smith, R. G., Antoni, M. H., Petronis, V. M., Weiss, S., & Derhagopian, R. P. (2005). Optimistic personality and psychosocial well-being during treatment predict psychosocial well-being among long-term survivors of breast cancer. *Health Psychology, 24*(5), 508-516.

Carver, C. S., Smith, R. G., Petronis, V. M., & Antoni, M. H. (2006). Quality of life among long-term survivors of breast cancer: Different types of antecedents predict different classes of outcomes. *Psycho-Oncology, 15*(9), 749-758.

Chan, C. L., Ng, S. M., Ho, R. T., & Chow, A. Y. (2006). East meets West: Applying Eastern spirituality in clinical practice. *Journal of Clinical Nursing, 15*(7), 822-832.

Choumanova, I., Wanat, S., Barrett, R., & Koopman, C. (2006). Religion and spirituality in coping with breast cancer: Perspectives of Chilean women. *Breast Journal, 12*(4), 349-352.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, N.J.: Lawerence Erlbausm Associates.

Cordova, M. J., Cunningham, L. L. C., Carlson, C. R., & Andrykowski, M. A. (2001). Posttraumatic growth following breast cancer: A controlled comparison study. *Health Psychology, 20*(3), 176-185.

Cotton, S. P., Levine, E. G., Fitzpatrick, C. M., Dold, K. H., & Targ, E. (1999). Exploring the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. *Psycho-Oncology, 8*(5), 429-438.

Coward, D. D., & Kahn, D. L. (2004). Resolution of spiritual disequilibrium by women newly diagnosed with breast cancer. *Oncology Nursing Forum, 31*(2), E24-31.

Crawford, J. R., & Henry, J. D. (2003). The Depression Anxiety Stress Scales (DASS): Normative data and latent structure in a large non-clinical sample. *British Journal of Clinical Psychology, 42*(2), 111.

Deimling, G. T., Bowman, K. F., Sterns, S., Wagner, L. J., & Kahana, B. (2006). Cancer-related health worries and psychological distress among older adult, long-term cancer survivors. *Psycho-Oncology, 15*(4), 306-320.

Efficace, F., & Marrone, R. (2002). Spiritual issues and quality of life assessment in cancer care. *Death Studies, 26*(9), 743-756.

Elashoff, J. D. (1995-2005). nQuery Advisor (Version 6.0). Sangus, MA: Statistical Solutions.

Emmons, R. A. (2000). Is Spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion, 10*(1), 3-26.

Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning, and religion. *Journal of Social Issues, 61*(4), 731-745.

Emmons, R. A., Cheung, C., & Tehrani, K. (1998). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social Indicators Research, 45*, 391-422.

Emmons, R. A., & Paloutzian, R. F. (2003). The psychology of religion. *Annual Review of Psychology, 54*(1), 377-402.

Evangelista, L. S., Doering, L., & Dracup, K. (2003). Meaning and life purpose: The perspectives of post-transplant women. *Heart Lung, 32*(4), 250-257.

Fabricatore, A. N., Handal, P. J., Rubio, D. M., & Gilner, F. H. (2004). Stress, religion, and mental health: Religious coping in mediating and moderating roles. *The International Journal for the Psychology of Religion, 14*(2), 91-108.

Feher, S., & Maly, R. C. (1999). Coping with breast cancer in later life: The role of religious faith. *Psycho-Oncology, 8*(5), 408-416.

Ferrell, B., Paice, J., & Koczywas, M. (2008). New standards and implications for improving the quality of supportive oncology practice. *Journal of Clinical Oncology, 26*(23), 3824-3831.

Ferrell, B. R., Dow, K. H., Leigh, S., Ly, J., & Gulasekaram, P. (1995). Quality of life in long-term cancer survivors. *Oncology Nursing Forum, 22*(6), 915-922.

Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science & Medicine, 45*(8), 1207-1221.

Frankl, V. E. (1978). *The unheard cry for meaning: Psychotherapy and humaninism*. New York: Simon & Schuster.

Friedman, L. C., Kalidas, M., Elledge, R., Chang, J., Romero, C., Husain, I., et al. (2006). Optimism, social support and psychosocial functioning among women with breast cancer. *Psycho-Oncology, 15*(7), 595-603.

Froese, P., & Bader, C. D. (2007). God in America: Why theology is not simply the concern of philosophers. *Journal for the Scientific Study of Religion, 46*(4), 465-481.

Gall, T. L. (2004). The role of religious coping in adjustment to prostate cancer. *Cancer Nursing, 27*(6), 454-461.

Gall, T. L., & Cornblat, M. W. (2002). Breast cancer survivors give voice: A qualitative analysis of spiritual factors in long-term adjustment. *Psycho-Oncology, 11*(6), 524-535.

Gall, T. L., de Renart, R. M. M., & Boonstra, B. (2000). Religious resources in long-term adjustment to breast cancer. *Journal of Psychosocial Oncology, 18*(2), 21-37.

Gall, T. L., & Grant, K. (2005). Spiritual disposition and understanding illness. *Pastoral Psychology, 53*(6), 515-533.

Galvan, J. L. (2006). *General guidelines for analyzing literature: Writing literature reviews* (3rd ed., pp. 31-42). Glendale, CA: Pyrczak Publishing.

Gallup Poll. (2008). *State of the states: Importance of religion*. Princeton, NJ: Gallup.Garssen, B. (2004). Psychological factors and cancer development: Evidence after 30 years of research. *Clinical Psychology Review, 24*(3), 315-338.

Gibson, L. M., & Hendricks, C. S. (2006). Integrative review of spirituality in African American breast cancer survivors. *ABNF Journal, 17*(2), 67-72.

Helgeson, V. S., Cohen, S., Schulz, R., & Yasko, J. (2001). Long-term effects of educational and peer discussion group interventions on adjustment to breast cancer. *Health Psychology, 20*(5), 387-392.

Henri, G. (2007). Reassessing conventional approaches to conversion: Toward a new synthesis. *Journal for the Scientific Study of Religion, 46*(3), 337-353.

Hill, P. C. (1995). Affective theory and religious experience. In R. W. Hood (Ed.), *Handbook of Religious Experience* (pp. 353-377). Birmingham, AL: Religious Education Press.

Hill, P. C., & Hood, R. W. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.

Holm, N. G. (1995). Role theory and religious experience. In R. W. Hood (Ed.), *Handbook of Religious Experience* (pp. 397-420). Birmingham, AL: Religious Education Press.

Hummer, R. A., Ellison, C. G., Rogers, R. G., Moulton, B. E., & Romero, R. R. (2004). Religious involvement and adult mortality in the United States: Review and perspective. *Southern Medical Journal, 97*(12), 1223-1230.

Institute of Medicine. (2007). *Cancer care for the whole patient: Meeting psychosocial health needs*. Washington, D.C.: The National Academies Press.

Jemal, A., Siegel, R., Ward, E., Hao, Y., Xu, J., Murray, T., et al. (2008). Cancer statistics, 2008. *CA Cancer Journal for Clinicians, 58*(2), 71-96.

Jim, H. S., Richardson, S. A., Golden-Kreutz, D. M., & Andersen, B. L. (2006). Strategies used in coping with a cancer diagnosis predict meaning in life for survivors. *Health Psychology, 25*(6), 753-761.

Johnson Vickberg, S. M. (2001). Fears about breast cancer recurrence. *Cancer Practice, 9*(5), 237-243.

Johnson Vickberg, S. M., Duhamel, K. N., Smith, M. Y., Manne, S. L., Winkel, G., Papadopoulos, E. B., et al. (2001). Global meaning and psychological adjustment among survivors of bone marrow transplant. *Psycho-Oncology, 10*(1), 29-39.

Kahn, P. J., & Greene, A. L. (2004). Seeing conversion whole: Testing a model of religious conversion. *Pastoral Psychology, 52*(3), 233-258.

Kissane, D. W., Grabsch, B., Love, A., Clarke, D. M., Bloch, S., & Smith, G. C. (2004). Psychiatric disorder in women with early stage and advanced breast cancer: A comparative analysis. *Australian New Zealand Journal of Psychiatry, 38*(5), 320-326.

Koenig, H. G. (2004). Religion, spirituality, and medicine: Research findings and implications for clinical practice. *Southern Medical Journal, 97*(12), 1194-1200.

Koltko-Rivera, M. E. (2004). The psychology of worldviews. *Review of General Psychology, 8*(1), 3-58.

Krause, N. (2004). Assessing the relationships among prayer expectancies, race, and self-esteem in late life. *Journal for the Scientific Study of Religion, 43* (3), 395-408.

Kreitler, S., Peleg, D., & Ehrenfeld, M. (2007). Stress, self-efficacy and quality of life in cancer patients. *Psycho-Oncology, 16*(4), 329-341.

Landmark, B. T., Strandmark, M., & Wahl, A. K. (2001). Living with newly diagnosed breast cancer--the meaning of existential issues. A qualitative study of 10 women with newly diagnosed breast cancer, based on grounded theory. *Cancer Nursing, 24*(3), 220-226.

Lang, F., Floyd, M. R., & Beine, K. L. (2000). Clues to patients' explanations and concerns about their illnesses. A call for active listening. *Archives of Family Medicine, 9*(3), 222-227.

Lauver, D. R., Connolly-Nelson, K. B., & Vang, P. B. (2007). Stressors and coping strategies among female cancer survivors after treatments. *Cancer Nursing, 30*(2), 101-111.

Lee, V., Cohen, S. R., Edgar, L., Laizner, A. M., & Gagnon, A. J. (2004). Clarifying "meaning" in the context of cancer research: A systematic literature review. *Palliative Support Care, 2*(3), 291-303.

Leibniz, G. W. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Lin, H. R., & Bauer-Wu, S. M. (2003). Psycho-spiritual well-being in patients with advanced cancer: An integrative review of the literature. *Journal of Advanced Nursing, 44*(1), 69-80.

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd. ed.). Sydney: Psychology Foundation.

Manning-Walsh, J. (2005). Social support as a mediator between symptom distress and quality of life in women with breast cancer. *JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing, 34*(4), 482-493.

Manning-Walsh, J. K. (2005). Psychospiritual well-being and symptom distress in women with breast cancer. *Oncology Nursing Forum, 31*(3), E56-E62.

Maynard, E. A., Gorsuch, R. L., & Bjorck, J. P. (2001). Religious coping style, concept of God, and personal religious variables in threat, loss, and challenge situations. *Journal for the Scientific Study of Religion, 40*(1), 65-74.

McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality, 63*(3), 365-396.

McCabe, M. S., & Jacobs, L. (2008). Survivorship care: Models and programs. *Seminars in Oncology Nursing, 24*(3), 202-207.

McConnell, K. M., Pargament, K. I., Ellison, C. G., & Flannelly, K. J. (2006). Examining the links between spiritual struggles and symptoms of psychopathology in a national sample. *Journal of Clinical Psychology, 62*(12), 1469-1484.

McGrath, P. (2002). Creating a language for 'spiritual pain' through research: A beginning. *Supportive Care Cancer, 10*(8), 637-646.

McKenna, M. C., Zevon, M. A., Corn, B., & Rounds, J. (1999). Psychosocial factors and the development of breast cancer: A meta-analysis. *Health Psychology, 18*(5), 520-531.

McMillen, J. C. (1999). Better for it: How people benefit from adversity. *Social Work, 44*(5), 455-468.

McSherry, W., & Cash, K. (2004). The language of spirituality: An emerging taxonomy. *International Journal of Nursing Studies, 41*(2), 151-161.

Meraviglia, M. (2006). Effects of spirituality in breast cancer survivors. *Oncology Nursing Forum, 33*(1), E1-7.

Merriman-Webster (2007). Merriman-Webster online dictionary. Retrieved November 30, 2997: http://www.m-w.com/dictionary/ism

Moadel, A., Morgan, C., Fatone, A., Grennan, J., Carter, J., Laruffa, G., et al. (1999). Seeking meaning and hope: Self-reported spiritual and existential needs among an ethnically-diverse cancer patient population. *Psycho-Oncology, 8*(5), 378-385.

Montazeri, A., Harirchi, I., Vahdani, M., Khaleghi, F., Jarvandi, S., Ebrahimi, M., et al. (2000). Anxiety and depression in Iranian breast cancer patients before and after diagnosis. *European Journal of Cancer Care, 9*(3), 151-157.

Montgomery, G. H., David, D., Goldfarb, A. B., Silverstein, J. H., Weltz, C. R., Birk, J. S., et al. (2003). Sources of anticipatory distress among breast surgery patients. *Journal of Behavioral Medicine, 26*(2), 153-164.

Morgan, P. D., Gaston-Johansson, F., & Mock, V. (2006). Spiritual well-being, religious coping, and the quality of life of African American breast cancer treatment: A pilot study. *ABNF Journal, 17*(2), 73-77.

National Health Service, (2009). Appraisal Tools. Retrieved April 28, 2009, from http://www.phru.nhs.uk/Pages/PHD/resources.htm

Nordin, K., Berglund, G., Glimelius, B., & Sjoden, P. O. (2001). Predicting anxiety and depression among cancer patients: A clinical model. *European Journal of Cancer, 37*(3), 376-384.

Norton, M. C., Skoog, I., Franklin, L. M., Corcoran, C., Tschanz, J. T., Zandi, P. P., et al. (2006). Gender differences in the association between religious involvement and depression: the Cache County (Utah) study. *Journals of Gerontology Series B-Psychological Sciences & Social Sciences, 61*(3), P129-136.

Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York: The Guildford Press.

Pargament, K. I., Kennell, J., Hathaway, W., Grevengoed, N., Newman, J., & Jones, W. (1988). Religion and the problem-solving process: Three styles of coping. *Journal for the Scientific Study of Religion, 27*(1), 90.

Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*(4), 519-543.

Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology, 9*(6), 713-730.

Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues, 61*(4), 665-687.

Pargament, K. I., Zinnbauer, B. J., Scott, A. B., Butter, E. M., Zerowin, J., & Stanik, P. (1998). Red flags and religions coping: Identifying some religious warning signs among people in crisis. *Journal of Clinical Psychology, 54*(1), 77-89.

Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues, 61*(4), 707-729.

Petticrew, M., Bell, R., & Hunter, D. (2002). Influence of psychological coping on survival and recurrence in people with cancer: Systematic review. *British Medical Journal, 325*(7372), 1066.

Reker, G. T., & Chamberlain, K. (2000). *Exploring existential meaning: Optimizing human development across the life span*. Thousand Oaks, CA: Sage Publications.

Romero, C., Friedman, L. C., Kalidas, M., Elledge, R., Chang, J., Liscum, K. R., et al. (2006). Self-forgiveness, spirituality, and psychological adjustment in women with breast cancer. *Journal of Behavioral Medicine, 29*(1), 29-36.

Rowland, J. H., & Bellizzi, K. M. (2008). Cancer survivors and survivorship research: a reflection on today's successes and tomorrow's challenges. *Hematology Oncology Clinics of North America, 22*(2), 181-200.

Ryff, C. D. (1989). Happiness is everything, or is it - Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.

Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719-727.

Schou, I., Ekeberg, O., Karesen, R., Sorensen, E., Schou, I., Ekeberg, O., et al. (2008). Psychosocial intervention as a component of routine breast cancer care-who participates and does it help? *Psycho-Oncology, 17*(7), 716-720.

Schou, I., Ekeberg, O., & Ruland, C. M. (2005). The mediating role of appraisal and coping in the relationship between optimism-pessimism and quality of life. *Psycho-Oncology, 14*(9), 718-727.

Shaw, B., Han, J. Y., Kim, E., Gustafson, D., Hawkins, R., Cleary, J., et al. (2007). Effects of prayer and religious expression within computer support groups on women with breast cancer. *Psycho-Oncology, 16*(7), 676-687.

Spinoza, B. (1960). *The European philosophers from Descartes to Nietzsche*. New York: The Modern Library.

Stanton, A. L., Danoff-Burg, S., Cameron, C. L., Bishop, M., Collins, C. A., Kirk, S. B., et al. (2000). Emotionally expressive coping predicts psychological and physical adjustment to breast cancer. *Journal of Consulting and Clinical Psychology, 68*(5), 875-882.

Stanton, A. L., Danoff-Burg, S., & Huggins, M. E. (2002). The first year after breast cancer diagnosis: Hope and coping strategies as predictors of adjustment. *Psycho-Oncology, 11*(2), 93-102.

Stanton, A. L., Ganz, P. A., Rowland, J. H., Meyerowitz, B. E., Krupnick, J. L., & Sears, S. R. (2005). Promoting adjustment after treatment for cancer. *Cancer, 104*(11), 2608-2613.

Stark, R. (1999). Atheism, faith, and the social scientific study of religion. *Journal of Contemporary Religion, 14*(1), 41-62.

Stark, R., Hamberg, E., & Miller, A.S. (2005). Exploring spirituality and unchurched religions in America, Sweden, and Japan. *Journal of Contemporary Religion, 20*(1), 3-23.

Tarakeshwar, N., Vanderwerker, L. C., Paulk, E., Pearce, M. J., Kasl, S. V., & Prigerson, H. G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *Journal of Palliative Medicine, 9*(3), 646-657.

Targ, E. F., & Levine, E. G. (2002). The efficacy of a mind-body-spirit group for women with breast cancer: A randomized controlled trial. *General Hospital Psychiatry, 24*(4), 238-248.

Thune-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., & Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Social Science & Medicine, 63*(1), 151.

Urcuyo, K. R., Boyers, A. E., Carver, C. S., & Antoni, M. H. (2005). Finding benefit in breast cancer: Relations with personality, coping, and concurrent well-being. *Psychology and Health, 20*(2), 175-192.

van't Spijker, A., Trijsburg, R. W., & Duivenvoorden, H. J. (1997). Psychological sequelae of cancer diagnosis: A meta-analytical review of 58 studies after 1980. *Psychosomatic Medicine, 59*(3), 280-293.

Vickberg, S. M. J. (2003). The Concerns About Recurrence Scale (CARS): A systematic measure of women's fears about the possibility of breast cancer recurrence. *Annals oOf Behavioral Medicine, 25*(1), 16-24.

Vidal, C. (Ed.). (2008). *What is a worldview?* Acco,NL: Leuven.

Vos, P. J., Garssen, B., Visser, A. P., Duivenvoorden, H. J., de Haes, H. C., Vos, P. J., et al. (2004). Psychosocial intervention for women with primary, non-metastatic breast cancer: A comparison between participants and non-participants. *Psychotherapy & Psychosomatics, 73*(5), 276-285.

Wildes, K. A., Miller, A. R., San Miguel de Majors, S., & Ramirez, A. G. (2008). The religiosity/spirituality of Latina breast cancer survivors and influence on health-related quality of life. *Psycho-Oncology*. doi:10.1002/pon.1475

Wong-McDonald, A., & Gorsuch, R. L. (2004). A multivariate theory of God concept, religious motivation, locus of control, coping, and spiritual well-being. *Journal of Psychology and Theology, 32*(4), 318-334.

Wonghongkul, T., Dechaprom, N., Phumivichuvate, L., & Losawatkul, S. (2006). Uncertainty appraisal coping and quality of life in breast cancer survivors. *Cancer Nurs, 29*(3), 250-257.

Wood, M. J. (2003). Systematic literature reviews. *Clinical Nursing Research, 12*(1), 3-7.

Yohannes, A. M., Koenig, H. G., Baldwin, R. C., & Connolly, M. J. (2008). Health behaviour, depression and religiosity in older patients admitted to intermediate care. *International Journal of Geriatric Psychiatry, 23*(7), 735-740.

Yu, C. L., Fielding, R., & Chan, C. L. (2003). The mediating role of optimism on post-radiation quality of life in nasopharyngeal carcinoma. *Quality of Life Research, 12*(1), 41-51.

Zwingmann, C., Muller, C., Korber, J., & Murken, S. (2008). Religious commitment, religious coping and anxiety: A study in German patients with breast cancer. *European Journal of Cancer Care, 17*(4), 361-370.

Zwingmann, C., Wirtz, M., Müller, C., Körber, J., & Murken, S. (2006). Positive and negative religious coping in German breast cancer patients. *Journal of Behavioral Medicine, 29*(6), 533.

Chapter Five

References

Bader, C., Dogherty, K., Froese, P., Johnson, B., Mencken, F. C., Park, J. Z., et al. (2006). *American piety in the 21st Century: New insight to the depth and complexity of religion in the US*. Waco, TX: Baylor Institute for Studies of Religion.

Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., et al. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology, 65*(2), 375-390.

Gall, T. L., de Renart, R. M. M., & Boonstra, B. (2000). Religious resources in long-term adjustment to breast cancer. *Journal of Psychosocial Oncology, 18*(2), 21-37.

Meraviglia, M. (2006). Effects of spirituality in breast cancer survivors. *Oncology Nursing Forum, 33*(1), E1-7.

Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York: The Guildford Press.

Romero, C., Friedman, L. C., Kalidas, M., Elledge, R., Chang, J., Liscum, K. R., et al. (2006). Self-forgiveness, spirituality, and psychological adjustment in women with breast cancer. *Journal of Behavioral Medicine, 29*(1), 29-36.

Stanton, A. L., Danoff-Burg, S., & Huggins, M. E. (2002). The first year after breast cancer diagnosis: Hope and coping strategies as predictors of adjustment. *Psycho-Oncology, 11*(2), 93-102.

Zwingmann, C., Muller, C., Korber, J., & Murken, S. (2008). Religious commitment, religious coping and anxiety: A study in German patients with breast cancer. *European Journal of Cancer Care, 17*(4), 361-370.

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PROFESSIONAL PUBLICATIONS

Peer Reviewed

Journal articles

*Schreiber, J.A., Lawhorn, N.A., Hall, L.A., & Dignan, M.B. (in review). Social support and quality of life in newly diagnosed ovarian cancer patients. *Oncology Nursing Forum, xx*(x), xx-xx

*Schreiber, J.A., Dignan, M.B., Lawhorn, N.A., Hall, L.A., Waterbor, J., Greene, P, & Fouad, M. (in review). Early clinical symptoms of women referred for suspected ovarian cancer. *Southern Medical Journal, xx*(x), xx- xx.

*DeLeon, E.; Kuntzman, M.; LesCamela, P.; Schreiber, J.;& Tessier, A. (1990). Case management in action. *Michigan Nurse, 63*(5), 17.

*Anderson, E.L.; McCartney, E.S.; Schreiber, J.A.; Thompson, E.A. (1989). Productivity measurement for clinical nurse specialists. *Clinical Nurse Specialist, 3*(2), 80-84.

Book chapters, Reports, Monographs, Protocols

*Brockopp, D.A., Moe, K.A., Schreiber, J.A., & Warden, L.S. (in press). Transitions throughout the cancer experience: Diagnosis, treatment, survivorship, and end of life. In T. Miller (Ed.), *Life Stress and Transitions in the Lifespan.* New York: Springer.

*Schreiber, J.A. (1990). Impaired gas exchange. In, J.C. McNally; J.C. Stair; & E.T. Somerville, *Guidelines for Cancer Nursing Practice* (2nd ed.), W.B. Saunders: Orlando, FL.

Published Abstracts

*Schreiber, J. (2007). The Social Cognitive Transition Model (SCTM): a framework for understanding the relationship of locus of control, dispositional optimism, and meaning in life to spiritual/religious outcomes. Oncology Nursing Society 32nd Annual Congress, April 24-27, 2007, Las Vegas, NV. *Oncology Nursing Forum, 34*(2), 569.

Schreiber, J. (2009). Image of God: Effect on coping, psycho-spiritual well-being and concern about recurrence in early breast cancer survivors. The Society for Spirituality Theology & Health 2nd Annual Conference, June 3-5, 2009. Durham, North Carolina. Proceedings.

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