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EXPLORING SPIRITUAL WELL-BEING AMONG SURVIVORS OF COLORECTAL AND LUNG CANCER

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Abstract

This descriptive, exploratory study is part of a larger observational study of the quality of cancer care delivered to population-based cohorts of newly-diagnosed patients with lung and colorectal cancer. The current study explores the role of spiritual well-being in adjustment to life after the cancer diagnosis, utilizing the Functional Assessment of Chronic Illness Therapy – Spiritual Well-being – Expanded (FACIT-Sp-Ex) Scale. Survey data collected from 304 newly-diagnosed cancer survivors were analyzed to explore important aspects of spirituality, such as sense of meaning in one's life, harmony, peacefulness, and a sense of strength and comfort from one's faith. Spiritual well-being scores, particularly meaning/peace, were statistically significant for African Americans, women and colorectal cancer survivors. These findings amplify a need for oncology social workers and other practitioners to assess spiritual well-being in cancer survivors in an effort to strengthen psychosocial treatment plans. Implications for social work practice and research are discussed.

Keywords

Cancer survivorship; oncology social work; quality of life; religiosity; spirituality

There are nearly 11 million cancer survivors in the United States. Of this number, nearly 1,650,000 (15%) had colorectal or lung cancer (Aziz, 2002). Lung cancer is the leading cause of death in men and women in the U.S., and colorectal cancer is the third leading cause of cancer death (American Cancer Society, 2008). For all stages combined, the 5-year survival rate for lung cancer is 15%; whereas, the 5-year relative survival rate for colorectal cancer is approximately 60% (American Cancer Society, 2008). With advances in medical technology and early detection, the length of survival for persons living beyond a cancer diagnosis has continued to increase over the past three decades for all cancers combined. Despite these dramatic improvements, a cancer diagnosis remains a life-altering event marked by long-term adverse physiologic and psychosocial effects that may lead to premature morbidity and mortality.

Most of what is known about the psychosocial effects of cancer is based on studies of survivors of childhood cancer or breast cancer among adults. Unfortunately, there is a paucity of empirical research regarding psychosocial or quality of life outcomes among survivors of colorectal or lung cancer. The lack of adequate and accurate data on colorectal and lung cancer survivors and quality of life outcomes, such as spirituality or spiritual well-being, must be addressed because these cancer sites account both for a significant portion of annual incidence of cancer and the overall proportion of survivors (American Cancer Society, 2008). Therefore, the purposes of this study are to characterize the spiritual well-being of newly-diagnosed colorectal and lung cancer survivors, and to review the implications for social work practice and research. Numerous factors have been shown to influence quality of life outcomes among cancer survivors, including their religious and spiritual beliefs. Spirituality is increasingly recognized as a particularly important component of overall well-being, and is especially significant in how cancer survivors view and cope with their illness (Levine & Targ, 2002; Meraviglia, 2006; Meraviglia, 2004; Schnoll, Harlow, & Brower, 2000). However, few recent studies examine the spiritual domain of quality of life in adult survivors of cancer other than breast cancer (Balboni et al., 2007; Bekelman et al., 2007; Hamilton, Powe, Pollard, Lee, & Felton, 2007; Krupski, Kwan, Fink, Sonn, Maliski, & Litwin, 2006; McCoubrie, & Davies, 2006; Meraviglia, 2004; Mystakidou et al., 2008; Rippentrop, Altmaier, & Burns, 2006).

As a first step in addressing these gaps in the scientific literature, the current study explored spiritual well-being in newly-diagnosed survivors of colorectal and lung cancer. This study is a part of a larger research project entitled, *Cancer Care Outcomes Research and Surveillance Consortium* (CanCORS), which examines the care delivered to population-based cohorts of newly-diagnosed patients with colorectal and lung cancers in multiple regions of the country and assesses outcomes associated with that care. The parent study was jointly funded by the National Institutes of Health (NIH) and the Department of Veteran Affairs; the lead author was provided supplemental funding (Comprehensive Minority Biomedical Branch, National Cancer Institute) to conduct the current study.

DEFINITIONAL ISSUES

Despite the growing literature in this area, the definition of *cancer survivorship* is often vague and confusing. Cancer survivorship was first described in 1985, in a poignant essay by Fitzhugh Mullan, a physician who wrote of his own cancer in the *New England Journal of Medicine*. Mullan (1985) suggested that survival begins at the point of diagnosis, a period when cancer patients reconcile life and death and make the critical decision to move forward in the face of uncertainty. Mullan further described three seasons of cancer survivorship: acute survivorship (the experience of diagnosis and treatment), extended survivorship (the period immediately following treatment, also marked by watchful waiting), and permanent survivorship (long-term remission). In addition to many definitional issues about when survivorship begins and ends, there has also been some debate about how exactly we characterize a *cancer survivor*. The cancer survivorship community (e.g., the National Cancer Institute, National Coalition for Cancer Survivorship and survivors themselves) regards survivorship as the period extending from the time of diagnosis throughout the balance of life. Furthermore, any individual, including family members, friends and caregivers who are also impacted by the cancer experience, is considered a cancer survivor.

A substantial amount of literature has been amassed in an effort to clearly distinguish religiosity from spirituality, yet there remain a number of different conceptualizations of these constructs (Hodge & McGrew, 2006; Canda & Furman, 1999). The Quality of Life Model for Cancer Survivorship (Ferrell et al., 1996) describes four essential dimensions of overall well-being which include spiritual well-being or an individual's experience of deepened meaning in life, religiosity, transcendence, hope, issues of loss and uncertainty, and inner strength (Ferrell et

al., 1992a, 1992b). Yet, the spiritual and religious dimensions of well-being have only recently been considered as integral aspects of quality of life and are still often omitted from quality of life research (Holland et al., 1998). Given this, it is important to distinguish religiosity from spirituality and further explain spiritual well-being as an expression of both.

Religiosity denotes a structured belief system involving organized worship services and structured activities that address spiritual issues (Canada & Ferman, 1999; Chamberlain & Hall, 2000; Hill & Hood, 1999; Koenig, 2001; Pargament, 1997; Sheridan, 2004). Religion has long been known to provide comfort, peace and meaning in times of stress and illness. Gall and Cornblat (2002) found that religion was viewed by many cancer patients as salient in their lives. They also suggested that for the breast cancer patients, in particular, the cancer experience may lead to an increased awareness of spiritual concerns as well as an increased dependence on religion and prayer for coping.

Spirituality, on the other hand, has been conceptualized as a broader search for meaning in life, involving a universal power as guide (Koenig, 2001; Holt et al., 2003; Canda & Furman, 1999; Underwood, Powe, Canales, Meade, & Im, 2006). The concept of spirituality is found in all cultures and is often considered to encompass a search for ultimate meaning through religion. Both religious and spiritual beliefs offer a foundation from which understanding, insight and meaning in life experiences may be recognized by providing feelings of comfort, peace, faith and hope. Moadel et al. (1999) discuss the important role of religion and spirituality in the successful adjustment to cancer noting that these two domains give meaning and hope by providing an explanation for the experience of illness and suffering.

The concept of spirituality has been considered to be religious in nature. Although religion may well be a part of the spiritual dimension of quality of life, there are many other aspects of this dimension to be considered. One such construct is *spiritual well-being*. Spiritual well-being is not the same as spirituality. Instead, spiritual well-being is conceptualized to be an expression of spirituality, or measurement of the state of one's spirituality or spiritual health. Spiritual well-being is a multidimensional construct that incorporates both religious and spiritual domains (Cotton, Levine, Fitzpatrick, Dold, & Targ, 1999), and is defined as "the ability to maintain hope and derive meaning from the cancer experience" (Ferrell et al., 1996). According to Ellison (1983), the function of spiritual well-being in relation to one's spirituality can be explained much like blood pressure as an expression of physical health. Spiritual well-being has many dimensions including the vertical dimension, or one's sense of well-being in relationship to God, and the horizontal dimension which represents one's perception of life's purpose and satisfaction apart from any specifically religious reference (Paloutzian & Ellison, 1982). Spiritual health centers on a sense of harmony between one's behavior, values, and personal and intimate relationship with that which is considered ultimate or Divine. Spiritual well-being may be thought of as feelings of harmony and peace coupled with a sense of meaning and purpose to life itself. Spiritual well-being is widely recognized within religion and is often measured by the alignment of one's spirit with the will of God.

There is growing empirical support for the hypothesis that spiritual well-being might help to buffer psychological functioning and adjustment to illness (McClain, Rosenfeld, & Breitbart, 2003). Furthermore, individuals with cancer and their families frequently use spiritual resources to cope with the cancer experience (Taylor, 2003; Kuuppelomäki, 2002). In their study of hope and well-being among cancer patients, Mickley and colleagues (1992) found that intrinsic religiousness is positively associated with spiritual well-being among cancer patients regardless of their level of physical well-being. Spiritual well-being, as measured by the Functional Assessment of Chronic Illness Spiritual Well-being scale, FACIT-Sp, is defined as, "important aspects of spirituality, such as sense of meaning in one's life, harmony,

peacefulness, and a sense of strength and comfort from one's faith" (Brady, Peterman, Fitchett, Mo, & Cella, 1999).

For the purpose of framing this paper, we have adopted the following definitions: (1) cancer survivorship is the period from cancer diagnosis through long-term remission, and includes both the cancer patient and any individual impacted by the cancer experience; and (2) spiritual well-being is a sense of meaning in one's life coupled with faith and peace about the future.

SPIRITUALITY AND SPIRITUAL WELL-BEING IN CANCER RESEARCH

Spirituality is considered an important component to assessing quality of life and well-being in cancer survivors. Research has shown that spirituality may play a major role in coping with cancer, adjusting to life after a cancer diagnosis and treatment, physical functioning, and quality of life in cancer survivors (Brady et al., 1999; Nelson, Rosenfield, Breitbart, & Galiotta, 2002; Hills, Paice, Cameron, & Shott, 2005; Tarakeshwar et al., 2006). Research that has examined the effect of spirituality has generally found that spiritual well-being among cancer survivors is linked to enhanced psychosocial adjustment and improved management of cancer-related symptoms (Cotton et al., 1999; Krupski et al., 2006; O'Mahony, Blank, Zallman, & Selwyn, 2005; Rippentrop, Altmaier, & Burns, 2006). For example, in a cross-sectional survey of hospice patients with cancer, McCoubrie and Davies (2006) reported a significant negative correlation between depression and overall spiritual well-being.

Intrinsic spirituality provides a sense of meaning and purpose in life and the relationship between spirituality and meaning in life appears as an essential factor in coping with stressful life experiences. The FACIT-Sp has been used to examine the association between spirituality and quality of life in cancer survivors wherein spirituality was associated with quality of life to the same degree as physical and emotional well-being (Brady et al., 1999). Researchers suggest that meaning in life after cancer is "perhaps the most important 'resistance resource' in coping with difficulties, as it supplies the motivation to continue to enlist other coping strategies and strengths" (Brady et al., 1999). As discovered in this study (Brady et al., 1999), spiritual well-being, particularly meaning and peace, may be associated with the ability of cancer survivors to enjoy life despite symptoms of pain or fatigue. Thus, finding meaning in times of stress and illness may be a protective factor for overall quality of life in cancer survivors.

METHODOLOGY

Study Population

Institutional review board approval was obtained in 2004 for the original study and in 2005 for the current study. A randomized sample of 800 survivors was drawn from the Alabama CanCORS cohort. Eligibility criteria included that individuals (1) had an oncologist's diagnosis of cancer, (2) were fewer than one year post-treatment or surgery for cancer; (3) were 18 years of age or older; (4) were able to read and write in English; and, (5) had completed the CanCORS baseline questionnaire. Survivors were excluded if they were unable to understand the study protocol and provide informed consent, were deceased at the time of the present study, or were alive but were "incapable" of completing the survey (e.g., too ill, incompetent), refused to complete the survey, the "household refused" to let the participant complete the survey, or could not be located or had moved out of the state of Alabama.

The survey instrument was mailed to potential participants, along with a letter that briefly described the study and invited participation. If a questionnaire was not returned within four weeks of the initial contact, a follow-up reminder postcard was mailed to the potential participant. Of the 800 surveys mailed, 343 (43%) were completed and returned with a signed

consent form. However, 39 of these were surrogate surveys in which a significant other person responded for the survivor; these were excluded from the analyses, leaving 304 eligible cases. Completed surveys were returned to the investigative team, who logged the surveys in as complete and mailed participants a thank-you letter and a \$10 gift card.

Measurement

Spiritual well-being was measured using an expanded version of the FACIT-Sp. The FACIT-Sp-Ex scale, developed by Peterman, Fitchett, Brady, Hernandez, and Cella (2002), is a multidimensional self-report measure that was validated in a large sample of cancer and HIV patients. The FACIT-Sp-Ex is part of the larger FACIT measurement system, developed in 1987 as the Functional Assessment of Cancer Therapy – FACT and formally revised to FACIT in 1997. The FACIT-Sp scale was designed with input from psychologists, religious/spiritual experts, and cancer survivors. The original 12-item scale was “designed to measure important aspects of spirituality, such as a sense of meaning in one’s life, harmony, peacefulness, and a sense of strength and comfort from one’s faith” (Peterman et al., 2002).

The FACIT-Sp-Ex, an enhanced 23-item version of the FACIT-Sp, measures overall spiritual well-being (score range, 0–92) which includes other important dimensions of spirituality such as forgiveness and love. The FACIT-Sp-Ex also measures a sense of meaning and peace, and assesses the role of faith in illness with items scored from 0 (not at all) to 4 (very much); a higher score indicates greater spiritual well-being or better quality of life. Items are divided into two subscales: meaning/peace and faith. The meaning/peace subscale measures a sense of meaning, peace and harmony, and purpose in life. For example, one item reads “I know that whatever happens with my illness, things will be ok.” The faith subscale assesses the relation between illness, faith, and spiritual beliefs, and how one finds comfort in one’s faith. For example, another item reads “I find strength in my faith or spiritual beliefs.” The expanded version of the FACIT-Sp includes the additional sources of concern subscale which includes other important dimensions of spirituality such as forgiveness and love. Such areas of spiritual well-being are explored through items like “I am able to forgive others for any harm they have ever caused me.” For this article, we focus mainly on results from the meaning/peace and faith subscales. All three Likert-type scales from the validation study have high internal consistency (Cronbach’s alpha for total scale, 0.87; for meaning/peace subscale, 0.81; for faith subscale, 0.88) (Brady et al., 1999).

Demographic data (e.g., age, gender, household income, level of education, marital status, and race) and cancer-related data (e.g., cancer site and time since diagnosis) were collected from the CanCORS baseline survey.

Data Analysis

Descriptive statistics (e.g., frequency, mean, standard deviation) were used to summarize all continuous and categorical variables. Comparisons between age groups (less than 65 years of age, 65 years of age and older), gender (female and male), racial groups (African American and Caucasian), and cancer site (colorectal and lung) for the two subscales and the total score were performed using the usual two-group t test or the two-group t test for unequal variances when needed. SAS software (version 9.1; SAS Institute, Inc., Cary, NC) was used to perform all statistical analyses.

RESULTS

Demographic and disease-related characteristics of the sample are summarized in Table 1. Of the 800 cancer survivors invited to participate, 304 had completed data that were evaluable. The sample ranged in age from 24 to 90, with a mean age of 64.24 years (SD = 11.42). Most

were women (N = 147; 56%) and 114 (44%) were men. The majority were White (N = 187; 64%) and 105 (36%) were African American. Over half of the participants were married (N= 181; 69%), 36 (14%) were widowed, 31 (12%) were separated or divorced, and 13 (5%) were never married. The mean years of education was about high school (12.74; SD = 3.08) and ranged from 2 to 20 years.

Colorectal cancer is more likely to be diagnosed early and treated successfully. Persons diagnosed with lung cancer, in comparison, often have advanced disease and a short prognosis. This may have resulted in a larger percentage of survivors in this study: 103 (34%) of the participants in the study were diagnosed with lung cancer, whereas 201 (66%) were diagnosed with colorectal cancer. Most study participants were still actively receiving radiation therapy, chemotherapy and/or hormone treatment.

The descriptive statistics for the FACIT-Sp-Ex, with a scoring range of 0–92, showed a minimum score of 37 and a maximum score of 92 with a mean of 80.32. The statistical results are summarized in Table 2. The mean score on the meaning/peace subscale was 26.20 (SD=5.02). Scores ranged from 7 to 32 (range of possible scores =0 to 32). The mean score on the faith subscale was 14.10 (SD=2.97). Scores ranged from 2 to 16 (range of possible scores =0 to 16). Comparison of the FACIT-Sp-Ex scores among this sample showed no significant differences based on age or race. However, the results suggest that spiritual well-being in the colorectal cancer survivors were significantly higher than the lung cancer survivors ($p < 0.0319$). Specifically, a sense of meaning and peace was significantly higher among colorectal cancer survivors ($p < 0.0421$). Faith, on the other hand, was significantly higher among African Americans ($p < 0.0004$) and women ($p < 0.0006$) regardless of cancer site.

Table 3 shows a comparison of this sample's performance on the FACIT-Sp-Ex with other samples reported in the literature. Using one-sample t tests, additional analysis was done to compare the mean spiritual well-being scores of this sample with studies (Brady et al., 1999; Manning-Walsh, 2005) that have previously used the brief 12-item version (FACIT-Sp) of this instrument. This sample demonstrated a higher α value on the FACIT-Sp total score. Means and standard deviations were higher in this sample than were reported previously.

DISCUSSION

One of the purposes of this study was to characterize spiritual well-being in newly-diagnosed survivors of colorectal and lung cancer. These two understudied cancer sites are responsible for a significant portion of the annual cancer incidence and overall percentage of cancer survivors. In general, our study found that spiritual well-being scores were high across both colorectal cancer and lung cancer survivors. The cross-sectional data presented here lend support to earlier studies that report high spiritual well-being scores in those individuals coping with illness (Morgan, Gaston-Johansson, & Mock, 2006; Peterman et al., 2002; Rippentrop et al., 2005). Participants in this study reported higher spiritual well-being scores (total scale: M=80.32; meaning/peace and faith subscales: M=40.29) than that reported in previous research on patients with colorectal cancer (Fernsler, Klemm, & Miller, 1999), HIV (Cotton et al., 2006), women with breast cancer (Cotton et al., 1999; Manning-Walsh, 2005), and prostate cancer (Tate & Forchheimer, 2002). The high level of spiritual well-being in this study may be related to the fact that a significant number of participants were older (mean age=64.24), female (N=187) and married (N=181); factors that have been associated with reports of higher level of spiritual well-being (Meraviglia, 2004; Mystakidou et al., 2008; Peterman et al., 2002).

The current study also found significant differences in scores on the meaning/peace subscale, where colorectal cancer survivors scored higher compared to lung cancer survivors. The

finding that lung cancer survivors had lower meaning/peace subscale scores than colorectal cancer survivors may be attributed to the fact that lung cancer survivors often experience distressful symptoms (e.g., dyspnea, fatigue), are frequently diagnosed at a more advanced disease stage, and have limited survival. Additionally, lung cancer survivors are confronted with the stress of societal stigmatization of the disease because of its association with cigarette smoking. For example, in a qualitative study exploring the perceptions and experiences of stigma experienced by survivors of lung cancer, survivors reported that they felt stigmatized whether they smoked or not because of the association of the disease with smoking (Chapple, Ziebland, & McPherson, 2004). Participants also reported that they felt the diagnosis affected their interaction with family, friends, and physicians; particularly for those who had never smoked.

In previous studies using the FACIT-Sp, a 12-item scale of spiritual well-being, greater depression was associated with lower FACIT-Sp total scores (Bekelman et al., 2007; Krupski et al., 2006; Simonelli, Fowler, Maxwell, & Andersen, 2008). In persons diagnosed with cancer, depression rates of 10% to 25% have been reported (Kessler et al., 2003; Pirl, 2004). In lung cancer survivors, depression rates of 10% to 33% have been reported (Hopwood & Stephens, 2000; Pirl et al., 2008; Walker, Zona, & Fisher, 2006). These finds imply that depression is an important factor for consideration in relationship to spiritual well-being, particularly among cancer survivors.

A growing research literature associates various religious factors with positive mental and physical health, and even suggests that aspects of religious involvement may reduce mortality (Hummer, Ellison, Rogers, Moulton, & Romero, 2004). Schnall and colleagues (2008) recently studied data on the religious practices of nearly 100,000 postmenopausal women participating in the Women's Health Initiative (WHI) Study. Results showed that women who attended a religious service at least once a week had a 20% lower risk of death from all causes, compared with women who did not attend any religious services. Previous data indicate that there is a significant relationship between the total FACIT-Sp-Ex score and age, gender, marital status, ethnicity, and type of disease (Peterman et al., 2002). In our study, faith subscale scores were significantly higher among African Americans and women, regardless of cancer site. Our findings provide support for those of Peterman (2002) in terms of race and gender. Our results were also generally consistent with earlier studies which demonstrate that African Americans are more religious than Whites (Taylor & Chatters, 1991; Mattis & Jagers, 2001; Holt, Schulz, & Wynn, 2009). Thus, it can be assumed that the degree of spiritual well-being may be lower among African Americans who are not highly religious. However, it is difficult to determine this using the current sample for which no baseline measure of intrinsic religiosity or spirituality was taken for comparison with the larger sample in the parent study. Furthermore, when controlling for race, most participants in our study ($N = 269$; 90%) reported belonging to a Christian religion (e.g., Baptist, Methodist), 2 (1%) were Jehovah's Witness (also a Christian religion), 7 (2%) reported another (unspecified) affiliation, and 22 (7%) reported no religious affiliation.

Similarly, spirituality has been identified as a significant protective and mediating factor in coping with health problems for African Americans, in particular (Hamilton, Powe, Pollard, Lee, & Felton, 2007; Newlin, Knafl, & Melkus, 2002). In a study of 114 African American breast cancer survivors, Ashing-Giwa, Ganz, and Peterson (1999) found that most of the participants (86%) rated spirituality as "important" to "very important" in coping with their illness. The role of faith as a coping resource among African Americans and women in the current study is also consistent with previous studies investigating the role of spiritual well-being (Hamilton et al., 2007; Morgan et al., 2006; Thoresen & Harris, 2002). As in this study, women in previous studies have reported higher levels of spirituality (Fernsler, Klemm, & Miller, 1999; Schnoll, Harlow, & Brower, 2000).

The findings from our study raise the question of whether improving the colorectal and lung cancer survivors' sense of meaning/peace might be an intervention that may enhance psychosocial adjustment and quality of life. Spirituality is the least understood domain of quality of life in cancer survivors as it relates to well-being, yet there is some consensus that it is a very important construct for understanding how survivors cope. In other cancer populations, spirituality has been associated with adjustment to cancer (Schnoll, Harlow, & Brower, 2000), lower levels of discomfort (Leak, Hu, & King, 2008), decreased anxiety and social isolation (Krupski et al., 2006), and quality of life (Balboni et al., 2007; Brady et al., 1999; Cotton et al., 1999). Given the large number of studies indicating the importance of spirituality and spiritual support in promoting a sense of well-being, it is surprising that little research has examined these variables in colorectal and lung cancer survivors. This underscores the importance of incorporating spirituality in the care of colorectal and lung cancer survivors.

Limitations of the Study

Several limitations of this study require acknowledgement. First, this study used a cross-sectional descriptive, correlation design which only identifies associations at a specific point in time. This limitation does not permit a clear picture of differences over time or the assessment of causal relationships, nor does it provide understanding of how the subscales relate to each other and whether meaning/peace and faith change over time with extended survival. Second, an additional limitation to be considered may be that of selection bias. This study did not attempt to address or control potential self-selection bias, where differences may exist between those who volunteered and those who refused participation in our study. For instance, the population in the current study may be biased because survivors with low levels of spiritual well-being may not have been motivated to participate in a study of this nature. Likewise, the theoretical direction of the bias could reflect either positive or negative selection, although there is evidence that suggests that African Americans are more likely to report as more religious than Whites. Regardless of the direction of the bias, future studies should consider statistical methods that control for self-selection. Finally, a third limitation considers the fact that many of the lung survivors recruited to participate in this study were deceased at the time of study initiation; consequently, the accrual of lung cancer survivors was lower than that of colorectal cancer survivors.

Despite these methodological limitations, the current study has notable strengths and makes important contributions to the literature. Although there have been many studies which examine the link between spiritual well-being and breast cancer survivorship, there are no published studies of which we are aware that have examined spiritual well-being among survivors of colorectal and lung cancers. Secondly, spiritual well-being was examined using standardized measures. This feature of the current study allows for comparisons with published studies that examined these variables in other populations. Lastly, the current study sample size was relatively large and included a higher proportion of women and African Americans than has often been the case in similar studies. Furthermore, this study was adequately powered to detect differences; a minimum sample size of 100 was determined by power analysis.

Implications for Social Work Practice

This study has important implications toward improving quality of life in cancer survivors. Social workers and other helping professionals should use results from this study to develop therapeutic and lifestyle programs (e.g., meditation, prayer, exercise, social support) which aid spiritual well-being. It has been recommended that spiritual concerns be raised with cancer survivors, and that appropriate measures be developed to further explore and validate the importance of the spiritual domain for cancer survivorship (Ameling & Povilonis, 2001). The findings of this study provide preliminary insight into spiritual well-being in newly-diagnosed survivors of colorectal and lung cancers. Results suggest that this understudied cancer

population has high levels of overall spiritual well-being – particularly, among African Americans, women, and survivors of colorectal cancer. This finding strengthens similar results from previous studies in breast cancer survivors (Ferrell, Grant, Funk, Otis-Green, & Garcia, 1998) and further supports the important role of spiritual well-being within the context of quality of life for cancer survivors.

While these findings support results from previous studies conducted in similar populations of breast cancer survivors, it is important to document and describe the spiritual characteristics of colorectal and lung cancer survivors. The study findings presented in this article confirm that survivors of colorectal and lung cancers have unique responses to cancer. Like previous research, this study has shown that spirituality is an important dimension of quality of life in survivors of colorectal and lung cancers. Therefore, social workers, especially those working in oncology, must be aware of spiritual concerns and integrate spirituality in the care of this understudied cancer population.

A number of other researchers, including Gilbert, have demonstrated the importance that social work practitioners recognize spiritual issues as essential to a holistic clinical approach (Gilbert, 2000). By incorporating the findings of previous work done in this field, oncology social workers and other health care professionals are in a unique position to advance the future well-being of newly-diagnosed cancer survivors by also recognizing the importance that spirituality can have in helping cancer survivors find new meaning and life purpose (Messick-Svare, Hylton, & Albers, 2007). Oncology social workers and other health care professionals should not seek to question whether or not they should attempt to incorporate spirituality in treatment and survivorship plans of cancer survivors, but rather, seek the most effective means of intervention to help cancer survivors move from acute survivorship to long-term, permanent survivorship (Praglin, 2004).

The National Cancer Institute (2008) suggests that spiritual screening and assessment is an important starting point for integrating spirituality in cancer care. Raising spiritual concerns with patients may be helpful in ascertaining basic levels of religious practice or spiritual well-being as the social worker or other health care professional seeks to identify possible areas of concern and need for further resources. A number of standardized assessment measures and open-ended interviewing tools have been offered to facilitate an exploration of religious beliefs and spiritual experiences or issues in cancer survivors (National Cancer Institute, 2008). Similarly, the National Cancer Institute has identified a variety of interventions that address the spiritual concerns of cancer survivors. For the social worker, specific interventions may include inquiring about religious or spiritual concerns within the context of usual medical care; encouraging the survivor to seek assistance from his or her own minister or faith leader; providing assistance through the services of a hospital chaplain; referring the survivor to a religious or faith-based therapist who is specially trained to address these issues; and linking the survivor to a support group that addresses spiritual matters (National Cancer Institute, 2008). Whatever the intervention, it needs to be done early and throughout treatment and long-term survivorship in a manner that recognizes and honors the religious and spiritual beliefs and practices of the cancer survivor.

Future Research

Researchers are particularly suited to advance scientific knowledge related to quality of life in survivors of colorectal and lung cancers. Further research is needed on survivors of colorectal or lung cancer, and spiritually-based therapeutic and lifestyle interventions must be developed to potentially treat or ameliorate the physiologic and psychosocial late effects of cancer in general (Aziz, 2002). Furthermore, future research with this population of cancer survivors should explore the diagnoses of colorectal and lung cancer separately. A more homogeneous sample allows for the potential to derive more meaningful findings specific to survivor and

family needs based on diagnosis. Secondly, more empirical studies are needed which investigate these potential relationships to enhance the literature where studies of this nature are relatively recent and very few in number. Thirdly, future research exploring spiritual well-being and quality of life in this population must include spirituality as a moderator of overall quality of life. Finally, outcome studies that evaluate the relationship between spiritual well-being and psychosocial adjustment and the influence of this relationship on treatment-related outcomes in this population would be of great benefit in assessing the impact of spirituality on overall survivorship and quality of life.

As Yoon & Lee (2007) has reported elsewhere in the literature, social work practitioners who fail to incorporate the dimensions of spirituality in treating survivors with adverse diagnoses also fall short in their ability to utilize enhanced strengths that survivors possess as coping mechanisms which improve their own sense of well-being. It is increasingly important that future studies build upon the present findings of this investigation as they seek to help inform and advance the effectiveness of social workers in oncology while advancing the fields of public health and social work.

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Table 1

General Demographics

Characteristic	N	%
Gender		
Male	114	(44)
Female	147	(56)
Race		
Caucasian	187	(64)
African American	105	(36)
Marital Status		
Married	181	(69)
Widowed	36	(14)
Separated or divorced	31	(12)
Never Married	13	(5)
Cancer Type		
Lung Cancer	103	(34)
Colorectal Cancer	201	(66)

Note: Where the N for a category does not total 304, this represents missing data.

Table 2

Descriptive Statistical Results

Scale	Mean	Range	SD
FACIT-Sp-Ex Total	79.98	37–92	11.4
Age 25–64	79.81	37–92	11.74
Age 65–90	80.13	38–92	11.14
African-American	80.84	39–92	10.61
Caucasian	79.50	37–92	11.83
Colorectal Cancer	80.98	37–92	10.58
Lung Cancer	77.98	38–92	12.71
Meaning/Peace Subscale	26.20	7–32	5.02
Age 25–64	26.19	7–32	5.23
Age 65–90	26.21	13–32	4.84
African-American	25.98	13–32	5.15
Caucasian	26.32	7–32	4.95
Colorectal Cancer	26.59	7–32	4.81
Lung Cancer	25.42	13–32	5.34
Faith Subscale	14.10	2–16	2.97
Age 25–64	14.15	2–16	3.10
Age 65–90	14.04	3–16	2.86
African-American	14.78	4–16	2.37
Caucasian	13.71	2–16	3.20
Colorectal Cancer	14.34	2–16	2.77
Lung Cancer	13.61	2–16	3.28

Table 3

Sample Data Comparison

Study of Spiritual Well-being	Mean Score
Clay et al (2009)	40.29
Cotton et al (2006)	31.30
Manning-Walsh (2005)	33.82
Peterman et al (2002)	38.50
Cotton et al (1999)	28.34
Brady et al (1999)	39.10

Note. Mean scores taken from meaning/peace and faith subscales only.