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Assessing the Psychosocial Needs of Individuals Diagnosed with Cancer, by Age and Sex on
Interest in Support Group Attendance

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Counselor Education

By

Mary Kathryn Rodrigue

B.S., University of Alabama, 2005
M.Ed., University of New Orleans, 2007

December 2010

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Dedication

I dedicate this dissertation to my beloved husband Drew. Although you weren't here to see me finish, you were here when I started this journey, and I would have never gotten to this place without you. Your time on earth was cut too short, but your impact will sustain me throughout my life. Your courage and strength has influenced me to dream, think, and write the impossible. I will love you forever!

I also dedicate this dissertation to my NaNa, Lena Cavallino. You always believed that I could reach great heights. I hope I am making you proud and you are making some good food for Drew in Heaven. I know we will meet again, and I will have expected you two to have read this dissertation in its entirety for us to discuss. Love you!

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Abstract

There are several psychosocial factors that can affect an individual diagnosed with cancer (Holland, 2003), and directly addressing these issues with patients is important for their overall care and quality of life (Holland, 1998). The practice of psycho-oncology has been designed to assess these psychosocial issues with patients and their caregivers by means of outlets such as support groups to facilitate a wellness model of care (Myers & Sweeney, 2008). Using the demographics of age and sex, I plan to analyze and identify what psychosocial needs are significant to individuals diagnosed with cancer, and compare the sex and age of two significantly represented patient age groups 18-40 and 41-80 years old. I will survey the patients of Tulane Cancer Center in New Orleans, Louisiana when they arrive for medical treatment at the facility. The survey will include a demographic page, the *Functional Assessment of Cancer Therapy-General* (FACT-G (Version 4)), the *Body Image Scale* (BIS), the *Changes in Sexual Functioning Questionnaire-Short Form* (CSFQ-14), and additional questions regarding the extent to which an individual would attend a support group designed for their specific age and sex demographic. Through data analysis, I hope to discover whether any of the variables of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being show significant differences between the male or female young adult population of 18-40 year olds and those patients who are 41-80 years old. The findings should allow psycho-oncology clinicians to utilize this knowledge to address what psychosocial needs are appropriate for each age and sex group, and thus enhance the overall care of the patient.

Keywords: psycho-oncology, support groups, body image, sexual functioning, physical well being, social/family well being, emotional well being, functional well being

Chapter One

Introduction

It is estimated that four times more patients diagnosed with cancer are between the ages of 20 and 40 years old, and the deficit in survival progress has been greater in young adults, especially between the ages of 25 and 35 years old (Bleyer, 2007). According to the research, the most common psychosocial factors which affect this specific age patient population include: depression, anxiety, worry about the future, financial concerns, body image issues, sexuality, and social and family support (Roberts, Piper, Denny, & Cuddeback, 1997). A vital component to the overall treatment of cancer is psycho-oncology, which has been an area of interest in research of the psychological factors in the development and progression of cancer (Garssen, 2004). In the mid 1970s the practice of psycho-oncology was introduced by Jimmie Holland, MD, who raised awareness of implementing psychosocial interventions into the treatment plan for a cancer diagnosis (Holland, 1998).

The psycho-oncology practice into oncology medicine has introduced therapeutic approaches to assessing the psychosocial needs of individuals diagnosed with cancer (Holland, 1998). Much of the research involving the practice of psycho-oncology applies psychological methods to strengthen the importance of its interventions, and also shows its positive effects on the patients and their families (Weis, Bartsch, Nagel, & Unger, 1996). The use of support groups with individuals having this disease has been utilized and researched for potential benefits to the overall care of cancer. According to Roberts et al. (1997), the use of support groups with young adults diagnosed with cancer has decreased the frequency of negative responses to the multiple concerns faced during this developmental stage.

Definition of Psycho-Oncology

Psycho-oncology is considered relatively new among the medical and oncology fields. This psychosocial care emerged two decades ago, when the humanistic and compassionate concern for the comfort of patients was an informal part of care (Holland, 1998). Holland (1998) found the main principles of psycho-oncology included the emotional responses of patients at all stages of disease, their families and caregivers, and the psychological, behavioral, and social factors that may influence cancer morbidity and mortality. There has been an increase in the number of professionals who address the psychological side of cancer, such as psychologists, counselors, patient navigators, nurse educators, and social workers (Weis et al., 1996). Psycho-oncology clinicians have created an environment where the practice of psycho-oncology can thrive and support patients through a life changing experience, while contributing to the clinical care of patients and families (Holland, 2003). Psycho-oncology clinicians' function ranges from educating staff members in psychological management to collaborative research that ranges from the behavioral issues in cancer prevention (Holland, 2003). Psycho-oncology contributes to the management of psychiatric disorders and the psychosocial problems during the continuum of cancer illness including end-of-life care (Holland, 2002). The development of psycho-oncology is directly correlated with the development of society's perception and reaction to a cancer diagnosis, where cancer is equivalent to a death sentence (Holland, 1998). Throughout the existence of psycho-oncology, there have been several interpretations its practice.

The theory of psycho-oncology is presently defined by Holland (2002) as:

The subspecialty of cancer dealing with two psychological dimensions: 1) the psychological reactions of patients with cancer and their families at all stages of the disease and the stresses on staff; and 2) the psychological, social, and

behavioral factors that contribute to cancer cause and survival (p. 218).

This two-pronged approach has set a therapeutic roadmap, guiding clinicians in their mission of helping patients through the emotional journey of a cancer diagnosis.

The psychological effects of cancer may include fear of recurrence, depression, post traumatic stress/anxiety, health worries, concerns about death, inability to plan for future, change in body image, loneliness, sense of loss for what might have been, and uncertainty/vulnerability (Holland, 2003). Newell, Sanson-Fisher, and Girgis (1999) examined the physical and psychosocial experiences of patients attending an outpatient medical oncology department. The researchers concluded that assessment of the psychosocial issues of cancer would help detect and reduce their negative implications of their diagnosis on their overall quality of life. The various therapeutic tools, such as support groups, will establish an outlet for treating the needs of the patients.

Psycho-Oncology and Support Groups

The use of psycho-oncology and support groups is also becoming more popular among advocacy groups for cancer support and awareness. Varying hospitals, organizations, and community centers are implementing support groups to bring cancer patients and their caregivers, together to process their common situations, fears, and coping skills.

When looking at the positive effects of support groups, researchers have seen advantages of them being more cost-effective than individual therapy, which may prompt additional benefits such as, peer support, diminished stigma of disease, and reduced social isolation (Edelman & Kidman, 1999). The use of support groups offers another unique advantage to working through the emotional issues faced along side the physical struggle of a cancer patient (Newell et al., 1999). Research has shown that young adults with cancer report that they feel they have less in

common with older patients, and that their concerns are specific to being young (Danhauer, Rutherford, Hurt, Gentry, Lovato, & McQuellon, 2007). Young adults between the ages of 18-40 years old struggle with the consequences of the physical and psychosocial components of cancer (Roberts et al., 1997).

As for individuals diagnosed with cancer, Classen et al. (2007) concluded that support groups can be the vessel implemented to address the specific needs of this patient population. When looking at the young adult population, these patients may respond more to the design of a support group. According to Roberts et al. (1997), the structure of a support group designed for this age group, less structured in format with more time and emphasis on an expressive or; social model yet loosely organized around six topics is recommended (Roberts et al, 1997). This method saw positive results, such as positive changes in psychological well being, when implemented in the appropriate settings (Roberts et al., 1998).

When looking at young adults and the different sexes, researchers have found more women than men seek out psychotherapeutic help (Phillips, Wennberg, Werbart, & Schubert, 2006). In a study conducted by Winefield, Coventry, Lewis, and Harvey (2003), the researchers found that women were more likely to attend psychotherapy groups to find more information and peer support regarding their specific diagnosis. The authors went on to conclude their participants were younger females willing to attend the group sessions, which may be due to the increase levels of distress found in younger women with advanced breast cancer (Winefield et al., 2003). However, Manii and Ammerman (2008) concluded that male patients with cancer are less likely to attend support groups, but if they do, they are typically in later stages of their illness and have experienced higher levels of distress. One explanation of this observation is, “the typical male role of the strong provider is threatened with the diagnosis of a life-threatening

illness, which may make it especially difficult for men to receive or seek out help” (Fife, Kennedy, & Robinson, 1994). This difference between the sex groups and their approach to support groups may help clinicians in narrowing a specific therapeutic approach to aid patients in psycho-oncology.

Conceptual Framework

The various therapeutic approaches have been influential in the development of psycho-oncology, and have also guided counselors when working with people diagnosed with cancer. Professionals of psycho-oncology can use multiple tools and techniques from a range of theories and models. The wellness model, along with the use of existential, person-centered, and cognitive behavioral therapy have become beneficial for psycho-oncology clinicians to treat their patients.

Myers and Sweeney (2008) discuss the benefits of the wellness model to have influenced professional counselors to encourage wellness, a positive state of well being, through developmental, preventative, and wellness enhancing interventions. In particular, the wellness model has been a staple construct in this area, and has merit in its effectiveness towards patients and their caregivers (Meyers & Sweeney, 2008). There are different interpretations of what wellness means to the therapist and to the patient.

Myers et al. (2000) defined wellness as:

A way of life oriented toward optimal health and well being, in which the individual to live life more fully within the human integrates body, mind, and spirit and natural community. Ideally, it is the optimum state of health and well-being that each individual is capable of achieving (p. 252).

Using this definition, counselors are able to establish a therapeutic treatment plan with their patients' situation and diagnosis. Wellness refers to positioning all the resources of the self so that they are neither competitive nor interfering with physical health, and are used to their maximum advantage in promoting wellness (Zimpfer, 1992). This definition is useful to counselors working with young adult patient population, because providing support early in the cancer experience would provide information on the pattern of social support and behavior (Decker, 2007).

Early involvement with the patients psychological care is what fuels the basic principles of psycho-oncology, and uses the wellness model's mission in a holistic way of helping people dealing with cancer in their life (Savolaine & Granello, 2002). According to Savolaine and Granello (2002), this idea of incorporating a wellness model into counseling can influence an individual's belief system and enhance the sense of meaning, and thus, such a person may feel both guided by values when facing challenging situations, and validated when acting in ways that are based on these beliefs. Psycho-oncology echoes this sentiment by using support groups to improve patients' understanding of illness and self-concept, decrease affective disturbance and improve coping, improve immunological measures, decrease pain, and even increase survival time (Presberg & Levenson, 1993). Applying the wellness model is a way to connect with the patient and give them an alternative perspective to fighting their disease. Over time, psycho-oncology has seen that along with the medical model, a wellness model can only add to the ammunition against cancer.

Along with identifying these issues, the use of appropriate counseling theories has helped facilitate the practice of psycho-oncology. Due to educational factors that organizations such as the American Cancer Society and the National Cancer Institute want to promote, the first

approach for psycho-oncology was cognitive behavioral therapies (Holland, 2002). This model builds on psychosocial and behavioral interventions that show how to change one's lifestyle to reduce cancer incidence (Holland, 2002). In changing the behavior patterns of the patient, clinicians feel that the psychological aspects of their actions would directly affect their mood, and ultimately their quality of life. When looking at stimulus control, a technique of behavior therapy, the goal is to have a patient create a new cue and reminder for adaptive non-problem behavior (Prochaska & Norcross, 2007). For example, if a patient wants to quit smoking, he or she can find a nicotine replacement for a cigarette when a trigger increases their urge to smoke. The practice of cognitive behavioral therapy is a key component to the theory of psycho-oncology, but over the years of its development, the theory of existentialism has become equally important.

For many individuals in this population, whether they are caregivers, friends, family, or the patients themselves, the questions they ask are often existential in nature. For instance, they may want to explore the larger meaning for why they have been faced with cancer. When looking at young adults with cancer, this age demographic has the cognitive capacity for insight into mortality and broader world concerns that may give rise to existential concerns (Berman, Weems, & Stickle, 2006). One aim of the therapist may be to organize observations about the person's spiritual beliefs, behaviors, and relationships in ways that enhance caregiving (Holland, 1998). The patients' need to step outside of themselves, look at what makes up their belief system, and how that impacts the way they are choosing to live their life. Yalom (2005) views existentialism as the human being's paramount struggle with the "givens" of existence, the ultimate concerns of the human condition, which are death, isolation, freedom, and meaninglessness. He stated, "we often ignore these existential givens, until life events increase

our sensibilities, we may at first respond to illness, bereavement, and trauma with denial, but ultimately the impact of these life altering events may break through to create a therapeutic opportunity to catalyze constructive changes in oneself, one's relationships, and one's relationship to life in general" (Yalom, 2005, p. 102).

When using the existential approach, clinicians want to encourage their patients to freely and honestly express whatever they are experiencing in the present, and try to make he or she aware of patterns they are repeating (Prochaska & Norcross, 2007). The focus of the therapy is to have these individuals find meaning in their situation that will help them rationalize what is going on around them, which hopefully leads to peace of mind (Miars, 2002). The initial purpose is to find the authenticity within the patient, and build a new perspective of self based on this concept. Once the person can achieve this sentiment of self-and-world perception, they begin to construct a new and different way of being in the world, and experience less distress around the issues and symptoms (Miars, 2002). Using this therapeutic approach can also be correlated with other theories that reinforce its principles. Along with a person-centered outlook, existentialism can alter the thought process of the patient, help change behavior, and empower them to adopt a more positive lifestyle (Prochaska & Norcross, 2007).

By adapting a psycho-oncology theory for the treatment of cancer patients, clinicians can pull from the previously mentioned approaches to help care for their patients. Another theory that has compelled this practice is the person-centered approach. The psycho-oncology clinician can use skills of communication and person-centered methods with their patients to build personal and social competence (Donovan, 2008). The purpose of the person-centered approach is to use the context of cancer-related issues to foster supportive and health communication and build personal confidence (Donovan, 2008). Carl Rogers has viewed his own work in aiding the

development of this approach by seeing that a person seeking help was not treated as a dependent patient, but a responsible client (Rogers, 1977). This shift in focus alone helps the patient feel more like an individual who is diagnosed with cancer, rather than just another medical number in a physician's pile of charts. This distinction, coupled with the trust in the relationship between patient and therapist, will change the mental direction of the individual, and guide them on a new intellectual path of self-assessment.

Using these therapeutic approaches when working with individuals diagnosed with cancer may help facilitate communication on the psychosocial needs of patients. The issue of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being can be incorporated into the wellness model, and when appropriately identified, ultimately improve the patients' overall quality of life (Myers & Sweeney, 2008).

Purpose of Study

Psycho-oncology addresses the psychosocial aspects of a cancer diagnosis. Its professionals contribute to the clinical care of the patients and families (Holland, 2003). Over the years, psycho-oncology clinicians have created support groups to bring patients together, and they have seen effectiveness of this method (Presberg & Levenson, 1993). However, patients between the ages of 18 to 40 years old do not report benefits of group therapy targeting specific psychosocial issues, because their needs are not being addressed compared to other age groups (Roberts et al., 1997). These young adult patients are presenting with higher levels of anxiety, poorer body image, increased fear of recurrence, and overall negative quality of life (Roberts et al., 1997). I suspect that young adults with cancer do not engage in support groups due to a disconnection between themselves and the patients of other ages. Research has shown that

young adults with cancer report feeling they have less in common with older patients, and that their concerns are specific to being young (Zebrack & Walsh-Burke, 2004).

The purpose of this study is to assess the psychosocial needs of individuals diagnosed with cancer, comparing the differences between sex and the age groups of 18-40 and 41-80 year olds, to determine the extent to attend a therapeutic support group. The dependent variables I am analyzing are body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of an individual diagnosed with cancer. I will use the independent variables of sex and age groups of 18-40 and 41-80 year olds to determine the differences among the participants. The scales I will use in this study will address the body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of the patients. The instruments I will use in the study are the *Functional Assessment of Cancer Therapy-General* (FACT-G), the *Body Image Scale* (B.I.S.), and the *Changes in Sexual Functioning Questionnaire-Short Form* (CSFQ-14) (Cella et al., 1993; Hopwood et al., 2001; Keller et al. 2006). There will also be an additional question which I will create in order to measure what extent an individual diagnosed with cancer is interested in attending a support group.

Research Questions

The following research questions serve as the overarching questions for this study:

General Question:

- a. Are there age group differences (18-40 and 41-80 year olds) in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?

- b. Are there sex group differences (males and females) in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?
- c. Is there an interaction between age and sex in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?

Research Question 1:

- 1a. Are there age group differences (18-40 and 41-80 year olds) in the body image of individuals diagnosed with cancer?
- 1b. Are there sex group differences (males and females) in the body image of individuals diagnosed with cancer?
- 1c. Is there an interaction between age and sex in the body image of individuals diagnosed with cancer?

Research Question 2:

- 2a. Are there age group differences (18-40 and 41-80 year olds) in the sexual functioning of individuals diagnosed with cancer?
- 2b. Are there sex group differences (males and females) in the sexual functioning of individuals diagnosed with cancer?
- 2c. Is there an interaction between age and sex in the sexual functioning of individuals diagnosed with cancer?

Research Question 3:

- 3a. Are there age group differences (18-40 and 41-80 year olds) in the physical well being of individuals diagnosed with cancer?
- 3b. Are there sex group differences (males and females) in the physical well being of individuals diagnosed with cancer?
- 3c. Is there an interaction between age and sex in the physical well being of individuals diagnosed with cancer?

Research Question 4:

- 4a. Are there age group differences (18-40 and 41-80 year olds) in the social/family well being of individuals diagnosed with cancer?
- 4b. Are there sex group differences (males and females) in the social/family well being of individuals diagnosed with cancer?
- 4c. Is there an interaction between age and sex in the social/family well being of individuals diagnosed with cancer?

Research Question 5:

- 5a. Are there age group differences (18-40 and 41-80 year olds) in the emotional well being of individuals diagnosed with cancer?
- 5b. Are there sex group differences (males and females) in the emotional well being of individuals diagnosed with cancer?

5c. Is there an interaction between age and sex in the emotional well being of individuals diagnosed with cancer?

Research Question 6:

6a. Are there age group differences (18-40 and 41-80 year olds) in the functional well being of individuals diagnosed with cancer?

6b. Are there sex group differences (males and females) in the functional well being of individuals diagnosed with cancer?

6c. Is there an interaction between age and sex in the functional well being of individuals diagnosed with cancer?

Research Question 7:

7a. Are there age group differences (18-40 and 41-80 year olds) in the willingness of individuals diagnosed with cancer to attend support groups?

7b. Are there sex group differences (males and females) in the willingness of individuals diagnosed with cancer to attend support groups?

7c. Is there an interaction between age and sex in the willingness of individuals diagnosed with cancer to attend support groups?

Definition of Terms

APOS- The American Psychosocial Oncology Society is an organization dedicated to the advancement of the science and practice of psychosocial care for people with

cancer (www.apos-society.org).

IPOS- The International Psychosocial Oncology Society is an international multi-disciplinary organization dedicated to fostering the science of psychosocial and behavioral oncology and improving the care of cancer patients and their families throughout the world (www.ipos-society.org).

Mental Health Counseling- Determines and attains the optimal level of psychosocial functioning by prevention, remediation of maladaptive patterns, rehabilitation, and enhancement of the quality of life (Hershenson & Power, 1987).

Psycho-Oncology- The emotional responses of patients, their families, and caretakers at all stages of disease. It is also the psychological, behavioral, and social factors that may influence cancer morbidity and mortality (Holland, 1992).

Y.A.D.C.- Young adults diagnosed with cancer whose ages ranges from 15-40 years old (www.i2y.org).

Cancer Diagnosis- Identifying a disease. It can be based on tests and the doctor's experience and knowledge (U.S. Department of Health & Human Services, 1985).

Cancer Prognosis- A prediction of what might happen in a specific case of disease.

(U.S. Department of Health & Human Services, 1985).

Chemotherapy- The treatment of cancer with special drugs that destroy cancer cells.

It is most often taken through a needle inserted into the veins or by mouth

(U.S. Department of Health & Human Services, 1985).

Radiation Therapy- The treatment of cancer with x-rays or rays from other radioactive sources. This treatment is beamed through a machine or implanted in the body

U.S. Department of Health & Human Services, 1985).

Caregiver- An individual, such as a parent, spouse, or head of household who attends to the needs of a child or dependent person (Clemmer, Ward-Griffin, & Forbes, 2008).

Support Group- A group of people with common experiences and concerns, who provide emotional and moral support for one another (Goelitz, 2001).

Chapter Two

Review of Literature

This chapter includes a review of the research and literature related to the practice of psycho-oncology as it pertains to a specific age related population. Also discussed are the psychosocial needs of young adults between 18-40 years old diagnosed with cancer. These needs include body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being. Although the focus of the study is on the young adult population, the literature also reflects the research conducted on the comparison group of individuals between the ages of 41-80 years old diagnosed with cancer.

Role of Psycho-Oncology Counselor

Psycho-oncology clinicians have responded to the psychological effects of cancer on patients by using various theories and essential practices. Expertise in the role of a counselor in psycho-oncology comes with training, experience, and research. These clinicians are personally engaged in the care of patients, their families, and caregivers, as well as teaching the principles and skills to the oncology staff (Holland, 1992). It is also interesting to note those working in psycho-oncology usually come from a vast range of disciplines and medical specialties (Die-Trill et al., 1995). According to Die-Trill et al. (1995), there are six specific objectives that are essential in the training of psycho-oncologists, which are as follows:

- 1) to learn the psychological, psychiatric and social principles underlying the management of the cancer patient, family and staff, as well as the knowledge and

information necessary to acquire an in-depth understanding of the psychological and psychiatric aspects of cancer care.

2) to be able to identify the psychosocial problems and psychiatric disorders most frequently encountered in the cancer patient, particularly as they occur in conjunction with specific malignancies and their therapies and to successfully treat them.

3) to learn how to initiate and maintain a psychosocial oncology program.

4) to learn to deliver psychotherapy as part of the medical care, to patients and their families.

5) to learn to assist staff members in caring for cancer patients, by encouraging a better understanding of staff attitudes and responses to patients and their treatments.

6) to learn to plan and develop relevant research projects on current topics in the field (p.173).

These approaches have also been summarized by Fawzy, Fawzy, Arndt, and Pasnau (1995), who found the crucial components to successful work in psycho-oncology are educational techniques, behavioral training, individual psychotherapy, and group interventions. A clinician seeking advancement in this field would also find that what cancer patients say about their psychotherapy might bring a unique and invaluable perspective to the theory and practice of this work (Maccormack, Simonian, Lim, Remond, Dunn, & Butow, 2001). The art of gathering information, from individuals diagnosed with this disease, may aid a psycho-oncology clinician in forming beneficial and effective approaches to tackle the psychosocial distresses of the patients. Maccormack et al. (2001) also suggested, “such information could then serve to help

other therapists to better tailor their interventions to suit the often special needs of cancer patients and their families” (p. 53).

American Psychosocial Oncology Society

Psycho-oncology professionals seeking support and resources for their therapeutic practices can affiliate themselves with the American Psychosocial Oncology Society (APOS). APOS is a professional organization, which provides a forum for professionals and individuals interested in the areas of psychological, social, behavioral, and spiritual aspects of cancer (www.apos-society.org). Its mission is to advance the science and practice of psychosocial care for people with cancer (www.apos-society.org). Its members come together and work from the fields of oncology, psychiatry, psychology, social work, nursing, counseling, therapy and patient advocacy to improve the psychosocial care of people with cancer (www.apos-society.org).

APOS is also affiliated with the International Psychosocial Oncology Society (IPOS). IPOS, established in 1984, was created to foster international multidisciplinary communication about clinical, educational, and research issues that relate to the subspecialty of psycho-oncology. The two primary dimensions of cancer, which include the response of patients, families, and staff to cancer, as well as the psychological, social, and behavioral factors which influence tumor progression and survival (www.iops-society.org). Its mission is dedicated to fostering the science of psychosocial and behavioral oncology and improving the care of cancer patients and their families throughout the world (www.iops-society.org). These two influential organizations are vital in promoting and educating the individuals who work among the psycho-oncology field.

Counseling Young Adults Diagnosed with Cancer

Due to greater psychological distress found in young adults diagnosed with cancer, patients who range in 18-40 years old are more likely to have more negative psychosocial needs (Roberts et al., 1997). This age demographic is marked by the developmental tasks, such as establishing independence from parents, seeking higher education and starting a career, finding a partner, and starting a family (Roberts et al., 1997). Individuals who are among the older adult population, 41-80 years old, may have different psychological responses to a cancer diagnosis.

When approaching the therapeutic process with young adults diagnosed with cancer, the counselor must be aware of the differences between these patients and those of other age groups in this disease population. The age range of young adults can typically be defined as 18 to 40 years old (Roberts et al., 1997). It has been noted that this age group reports feeling actively engaged in identity exploration, self-focus, and unstable intimate partnerships (Arnett, 2000). This unique demographic has variables and elements presenting issues that diverge from other age groups facing cancer. When first diagnosed, people have initial reactions about how their cancer diagnosis will affect his or her life on a daily basis. Foster and McLellan (2000) have stated, “because of the life and death nature of the fears evoked by cancer, it is particularly important for the oncology clinician to recognize the role that cognition plays in patient responses to the diagnosis and treatment of cancer” (p. 25). Having this insight, the coping mechanisms of young adults is beneficial when targeting appropriate therapeutic approaches. The clinician must also pay attention to the change in identity, which comes with receiving a cancer diagnosis.

When a young adult is diagnosed with cancer, it can create a unique balance or imbalance in his or her developmental growth. Working on the patient's identity and helping he or she create a wholeness that transcends the physical self is essential to seeing beyond cancer (Foster & McLellan, 2000). This is where using counseling to combat the emotional effects of cancer can have a positive physical affect. The development of psycho-oncology has been rooted in this theory of mind over matter. Robinson and Stiefel (1983) found, "30% to 40% of all cancer patients will be 'cured' of their disease and the 'cure' will be, in part, due to the patient's attitude toward the disease and a belief that he or she can influence the course of events" (p. 81). The therapeutic tools of counseling and psycho-oncology can be implemented into a comprehensive treatment plan which will employ the wellness model, in addition to the medical model, to fight this disease.

Counseling Older Adults Diagnosed with Cancer

Historically, older adulthood has been marked by changes in people's lives that often include sudden and multiple losses and unforeseen physical, emotional, social, and spiritual assaults to their person (Langer, 2004). This age group typically ranges from 41-80 year olds (Jansen et al., 2007). A cancer diagnosis can also be a catalyst for psychological change. This change in older adults can negatively affect organ systems, decreased immune function, and comorbid conditions (Buck, Overcash, & McMillan, 2009).

Buck et al. (2009) tested an adapted end-of-life conceptual model for the older adult cancer experience. The researchers believed older adult patients with cancer are at risk for depression, but expressed a need for the patient to practice his or her faith for spiritual and emotional support (Buck et al., 2009). In their study, the authors survey 403 older adult patients

with a mean age of 77 years old (Buck et al., 2009). They found that aging has a negative effect on the quality of life for older adults with cancer, but for patients with a strong spiritual base, their quality of life increased over time (Buck et al., 2009). This information can become beneficial when psycho-oncology clinicians are working with the older adult population. Counselors working with this age group should include strategies for assessment and intervention to address both the common mental health concerns of persons in later life and the normative issues of aging (Myers & Harper, 2004).

Psycho-Oncology and Support Groups

The use of support groups as a therapeutic tool in counseling has been beneficial when addressing the psychosocial needs, which affects a multitude of people. It provides individuals with a social learning experience, encourages developmental social support, and improves social networks (Yalom, 2005). When it comes to cancer and psycho-oncology, the same practice is put into effect when reaching out to patients. The homogeneous theme of the patients having cancer may influence the group to become more cohesive, have higher attendance, and less conflict (Yalom, 2005). There are a variety of support groups, which are implemented in different settings and environments, but multidisciplinary cancer centers are beginning to follow suit.

Researchers have found that emotional, cognitive, and behavioral themed support groups are essential in developing coping mechanisms of patients (Weis, Bartsch, Nagel, & Unger et al., 1995). Wies et al. (1995) discussed the psychosocial care of cancer patients by researching the Tumor Biology Center, which is an innovative model institution for cancer treatment and psycho-oncology programs. The aim of this institution is to use individual therapy and support groups, in order to educate the patients on utilizing coping mechanisms (Weis et al., 1995). The

authors suggest incorporating support groups and psycho-oncology, however the use of open and closed groups are helpful when dealing with a revolving door of patient turnover, due to the nature of medically treating cancer (Weis et al., 1995).

When a clinician is formulating a group with a targeted population of cancer patients, it is important to analyze the fundamental basic principles of group dynamics. According to Yalom (2005), it is vital to first assess the clinical situation, then formulate appropriate clinical goals, and third, modify traditional techniques to be responsive to these two steps: the new clinical situation and the new set of clinical goals. The facilitator of the group can apply these steps to create a unique opportunity to address the issues of not only cancer patients, but those young adult patients dealing with issues more relevant to their generation.

Young Adults Diagnosed with Cancer and Support Groups

The developmental stage of the young adult can be marked by several life-changing experiences (Phillips et al., 2006). The changes may be external, such as moving away from home, defining one's vocational choice, excelling in school or work, moving in with someone, perhaps marriage, pregnancy, and parenthood(Phillips et al., 2006). Alternatively, internal changes involve a consolidation of ego capacities that are required for life and career decisions (Phillips et al., 2006). This time in an individual's life can further be complicated by a cancer diagnosis. Young adults often do not want to be caught up in transference of feelings that pull them backwards in threatening ways; however, psychotherapy may be beneficial by having these patients relive feelings in the here-and-now, be able to tolerate these feelings, and try new ways of acting instead of habitual ones (Phillips et al., 2006).

The use of support groups and individuals with cancer has been researched for possible treatment in the quality of life of patients. In one study, the researcher used a focus group design to generate patient interaction and discussion on their views and reasoning on the impact of self-help support group involvement (Docherty, 2004). The participants included 18 patients with cancer, six caregivers, and one nurse. Docherty (2004) found that individuals with cancer who participate in support groups reported that some of the most helpful aspects of involvement included emotional support, information, experiences of other group members, and feelings of group cohesion. These positive traits are also seen with interventions by therapists to create a stronger emotional well being, promote resilience, and normalize feelings of emotional distress (Danahauer et al., 2007). When looking at support groups and young adults diagnosed with cancer, it is also informative to seek out the needs, which the groups participants find relevant, to discuss in the sessions.

In research conducted by Danahauer et al. (2007), the authors' goal was to meet the psychosocial needs of an increasing number of young women with breast cancer by providing supportive services with a particular emphasis on health and wellness, during and after breast cancer treatment. The researchers analyzed a focus group, which consisted of eight young adult women with breast cancer who completed a six session support group (Danahauer et al., 2007). Each session was conducted by two facilitators, who based their discussion topics on self-care strategies, healthful eating, symptom management, sexuality/body image, communication strategies, and physical activity/relaxation. They used the *Functional Assessment of Cancer Therapy-General* (FACT-G) to measure the quality of life, the *Center for Epidemiologic Studies-Depression Scale* (CES-D) to measure depressive symptoms, the *Positive and Negative Affect Schedule* (PANAS) to assess current affect, the *Satisfaction with Life Scale* (SWLS) to assess

satisfaction with one's life as a whole, and the program evaluation items to evaluate the group experience as a whole (Danhauer et al., 2007; Cella, Tulskey, Gray, Sarafian, Linn, & Bonomi et al., 1993; Radolff, 1977; Watson, Clark, & Tellegen, 1988; Diener, Emmons, Larsen, & Griffin, 1985). Their conclusions noted positive improvement in overall quality of life and a decrease in depressive symptomology (Danhauer et al., 2007). Upon further evaluation, the participants reported that they would have liked to address additional topics, such as recurrence of cancer in future support groups (Danhauer et al., 2007).

Further topics, which are important to the young adult patient demographic include, anxiety about health, loss of physical well being, worry about children, problems in relationships, financial and vocational concerns, and feelings of unattractiveness (Roberts et al., 1997). In one study, the researchers used an intervention of standard group therapy techniques to provide psychological support, establish group cohesion, and emphasize the universality of young adults' problems, as well as incorporating psychoeducational techniques, such as providing information, teaching stress management, and discussing problem solving (Roberts et al., 1997; Yalom, 2005). Roberts et al. (1997) used various instruments to measure mood, psychosocial needs, and coping mechanisms of the participants. These included the *Profile of Mood States* (POMS), the *Cancer Rehabilitation Evaluation System* (CARES), and the *Ways of Coping Checklist Revised* (WCCL-R) (Roberts et al., 1997; McNair, Lorr, & Droppleman, 1971; Schag & Heinrich, 1988; Folkman & Lazarus, 1980). The intervention used by the researchers was what they perceived as standard group therapy, and they incorporated psychoeducational techniques, such as providing information, teaching stress management, and discussing problem solving (Roberts et al., 1997). After a six week structured group intervention, their findings

included positive changes in psychological well being, but indicated that continued research with a larger sample is warranted (Roberts et al., 1997).

Older Adults Diagnosed with Cancer and Support Groups

When looking at psycho-oncology and facilitating the needs of older adults, group work has become an increasingly popular means of working with this age demographic (Pitkala, Blomquist, Routasalo, Saarenheimo, Karvinen, Oikarinen, & Mantyranta, 2004). A central theme in older adult support groups is empowerment of its members by the clinicians leading the group (Pitkala et al., 2004). In a study conducted by Pitkala et al. (2004), the researchers' objective was to create a developmental process of educating clinicians, who lead groups consisting of older adults. Using semi-structured interviews and working pair groups, the authors assessed the preconceptions and specific learning needs of trainees over an 18-month span. They found that the educational experience had meant professional growth to many clinicians, and enhanced the group management skills and knowledge about the psychosocial needs of older adults (Pitkala et al., 2004).

Older adults feel as though their needs differ from other age groups, even though their issues do not necessarily stem from their chronological age, but the adverse physical effects of aging complicate and worsen other difficulties (Evans, Chisholm, & Walshe, 2001). Evans et al. (2001) explored the issues of older adult patients by offering a dynamic psychotherapy group experience. The group consisted of 9 older adult members who participated in a weekly 8-month group study. The membership of the group fluctuated slightly during the course of the study, but most sessions had 60-70% of its participants (Evans et al., 2001). The discussion topics ranged from quality of life, to death and dying, but loneliness was frequently expressed and felt much

more acutely over the Christmas break (Evans, et al., 2001). The authors found that the participants had taken on an importance for all members and facilitators, and wanted the group therapy to continue once the 8-month study had expired (Evans et al., 2001). The participants were able to reflect on their past life experiences, and recognize a positive personal value to society (Evans et al., 2001). When comparing these group experiences to young adults with cancer, the age groups have a different emphasis on their psychosocial needs.

Psychosocial Needs of Young Adults Diagnosed with Cancer

There are numerous needs exemplified by individuals diagnosed with cancer. The focus of the research on the psychosocial needs of patients is typically is on the older adult population (Roberts et al., 1997). Young adults with cancer face multifaceted issues which stem from particular diagnoses, treatments, and outcomes. When looking at these individuals, the demographics of age and sex play an important role in how each person copes with his or her individual needs.

Research has shown that for young adults diagnosed with cancer, several difficulties may arise, such as schooling and employment, insurability, the ability to marry and have children, and establishing stable relationships with family and friends (Langeveld et al., 2003). These specific topics may differ from individuals in other age groups, and there may also be differences among the sexes when looking at the various needs. In a study conducted by Maurice-Stam, Grootenhuis, Caron, and Last (2007), the researchers recruited patients from the long-term follow-up clinic at the Emma Children's Hospital/Academic Medical Center in Amsterdam, and the patients ranged in ages from 18 to 30 years old (Maurice-Stam et al., 2007). They used the *Course-of-Life Questionnaire* to assess their achievements in developmental milestones, and a

short form health survey known as the RAND-36 to measure the quality of life of the participants (Grootenhuis, Stam, Destree-Vonk, Heijmans, & Last, 2003). Maurice-Stam et al. (2007) found the young adult patient population has reached fewer milestones than their peers, with respect to autonomy development, social development, and psychosexual development due to the influence of both disease and treatment. When looking at individuals diagnosed with cancer, I will assess patients of all ages with regards to psychosocial needs, and compare the age groups of young adults 18-40 years old to older adults diagnosed with cancer 41-80 years old.

Body Image

When an individual is diagnosed with cancer, there are numerous factors which contribute to altering the body in a physical way. For example, “the presence of bandages, suction machines, catheters, ostomies, oxygen canulas, and nebulizers may affect a patient’s perceived attractiveness” (Cagle & Bolte, 2009, p. 228). A person’s perception of his or her body image before treatment can drastically change once the treatment process begins. Patients of all ages will have individual ideas of what body image means for them, but research has shown that for young adults, the notion of body image is highly significant. Wardle, Haase, and Steptoe (2006) stated, “adolescence and young adulthood are key risk times for body image problems and eating disorders” (p. 645). This is a period where young adults are concerned with figuring out who they are, what they are doing with their lives, and specifically with whom they will be doing it with (Markey & Markey, 2006).

There is also a difference between the sexes when it comes to evaluating body image, even without the stresses of a cancer diagnosis. In the study conducted by Markey and Markey (2006), the researchers surveyed 95 heterosexual couples, who ranged in age from 18-30 years

old. The instruments used in this research were the *Contour Drawing Rating Scale* (CDRS), the *Body Mass Index* (BMI), and the *Marital Interaction Scale* (MIS) (Thompson & Gray, 1995; Lohman, T. G., Roche, A.F., & Martorell, M., 1988; Braiker & Kelley, 1979). It was concluded that women are more dissatisfied with their own bodies than their husbands are with their wives' bodies (Markey & Markey, 2006). They further went on to state, "it is important to examine associations between women's relationship experiences and their body images during the early adult years because this is a developmental period when social experiences shift from the family of origin and a more diffuse peer influence to focus on intimate relationships involving a partner or significant other" (Markey & Markey 2006, p. 272). This notion of body image becomes more complex when an individual is also battling cancer due to the changing factors caused by treatment, which are out of their control.

When looking at body image and young adults diagnosed with cancer, this psychosocial need also affects other development milestones in their lives. Their perception of body image may be coupled with other events, which causes a ripple effect in their quality of life, including physical, emotional, and sexual well being. In a study conducted by Zebrack and Chesler (2001), the researchers examined the health-related worries, self-image, and life outlooks of long-term survivors of childhood cancer. They used a self-report questionnaire to survey 493 young adult survivors between 14-29 years old. Zebrack and Chesler (2001) found that this demographic worries about how the experience of cancer may shape their self-image and life outlooks, and subsequently may affect their ability to successfully accomplish developmental tasks, such as dating, leaving school, entering the job market, leaving home, marrying and beginning a family, and ultimately achieving economically and socially productive lives.

Sexual Functioning

Along with other physical repercussions of cancer treatment, an individual's sexuality can become another factor inhibited by their disease. Cagle and Bolte (2009) stated, "disease processes can drastically alter one's appearance, cause physical and emotional pain, and affect libido and functionality" (p. 224). The consequences may include significant challenges in the areas of sexuality and sexual function, loss of interest in sex, pain associated with sex, a generally worsened sexual life, and reduced feelings of femininity (Greenwald & McCorkle, 2008). Overall, for individuals diagnosed with cancer, personal understandings and expressions of sexuality can be viewed as an essential aspect of adaptation to illness and heightened awareness of death (Cagle & Bolte, 2009). Healthy sexuality is defined as, "a complex notion that includes not just the physical capacity to engage in and enjoy sexual activity, but also the psychosocial capacity for intimate relationships and positive body image" (Olvio & Woolverton, 2001, p. 173). For young adults, this psychosocial need may be something they are just discovering in their developmental stage. Young patients must tackle normative developmental issues as well as disease- and treatment-related challenges, which may have a profound effect on their developmental growth (Olvio & Woolverton, 2001). Patients may feel as though sexuality is not a high priority while being treated for cancer.

When looking at the role of psycho-oncology and sexuality, some clinicians find it beneficial to explore sexuality with their patients (Cagle & Bolte, 2009). Researchers have found, "sexuality had been identified as an important component of holistic care, psychosocial functioning, and overall quality of life" (Cagle & Bolte, 2009, p. 223). When working with individuals diagnosed with cancer, the primary goal of addressing sexuality is to help patients regain whatever degree of interpersonal intimacy and sexual satisfaction they desire (Cagle &

Bolte, 2009). In a study conducted by Hordern and Street (2007), the researchers used semi-structured interviews with 50 patients, and asked them questions regarding how their cancer diagnoses impacted their needs of intimacy and sexuality. They found that irrespective of a patient's age, sex, culture, partnership status, or stage of cancer, the experience of being diagnosed with this disease had the potential to dramatically alter intimate and sexual aspects of a person's life (Hordern & Street, 2007). The researchers also concluded that younger, well-educated men and women had more of a desire to communicate with health professionals about intimate and sexual changes they may experience as a result of their cancer treatment (Hordern & Street, 2007).

Physical Well Being

The physical aspects of having cancer can greatly affect how an individual is coping with his or her disease. The list of physical symptoms is extensive, and researchers have seen that many aspects of patients' quality of life are diminished (Newell, Sanson-Fischer, & Ackland, 1999). The physical well being of an individual diagnosed with cancer may be negatively impacted in the following ways: their physical and work activities reduced, their social activities disrupted, family and other relationships deteriorate, their level of sexual activity decreased, and an increase in financial burden (Newell et al., 1999). In a study conducted by Newell et al. (1999), the researchers surveyed 195 patients at a comprehensive cancer center. The scales used in their study were the *Hospital Anxiety and Depression Scale* (HADS), which evaluated anxiety and depression, and the *Cancer Needs Questionnaire* (CNQ), to assess the psychological, health information, provider care and support, and the physical and daily living needs of the patients (Newell et al., 1999; Moorey, Greer, Watson et al., 1991; Lattimore-Foot, 1996). The results indicated that patients experiencing high levels of physical symptoms were much more likely to

have elevated, as opposed to lowered, levels of anxiety and depression (Newell et al., 1999). The researchers also concluded “having lots of support at home was also predictive to elevated levels of depression...it is possible that the high level of support increased these patients’ perceptions of dependency and lack of autonomy” (Newell et al., 1999, p. 80). Due to the developmental stage of the young adult, having substantial levels of support and dependence on parents may cause feelings of ambivalence towards his or her social identity as Joubert et al. (2001) have concluded.

When looking at the physical well being of individuals diagnosed with cancer, the young adult population may be affected differently than those of other age groups. In research conducted by Joubert et al. (2001), the investigators surveyed 97 adult survivors of childhood cancer between the ages of 18-42 years old. The scales used in the study were the *Attachment Style Questionnaire* (ASQ) and the *Relationships Questionnaire* (RQ), which both assessed attachment in adolescents and adult populations (Joubert et al., 2001; Feeney, Noller, & Hanrahan, 1994; Bartholomew, 1990). The researchers found that illness or disability in later childhood or adulthood may be more disturbing because of the disruption of established identity and expectations (Joubert et al., 2001). This disruption was defined as, “loss of functional capacity at a later stage can represent a significant threat to the self, in that it may disconfirm fundamental assumptions, or ‘illusions,’ about relative invulnerability, control over one’s life, and the inviolability of the body” (p. 290). The researchers also expressed another perspective on why young adults diagnosed with cancer have more difficulties processing the physical and psychosocial issues coinciding with their disease. Joubert et al. (2001) found the functional limitations more traumatic for young adults, because they more fully appreciate the implications of functional disabilities on social and occupational roles, as well as in personal relationships.

Social/Family Well Being

The social/family well being of an individual diagnosed with cancer can be described as the person's social support system. Hochhausen et al. (2007) defined social support as the patients' perception of the availability of support in their social environments, including emotional support, social interaction network, esteem support, tangible aid, and informational support. This psychosocial need can influence the ways in which an individual copes with his or her disease. Ptacek, Pierce, and Ptacek (2007) proclaimed, "supportive individuals can directly reduce or eliminate the stressful situation by lending tangible assistance; in essence the supporter and the supported combine their efforts and cope together" (p. 39). This collaboration of patients' support systems may help diffuse the daunting experience of being diagnosed with cancer.

During the developmental years of young adulthood, the support of family and social peers may affect how the individuals interact in social settings. The following research is a precursor to the purpose of this study. Roberts et al. (1997) suggested that young adult cancer patients may worry about poor health or dying, which alienates them from healthy peers, who usually avoid thoughts or discussions of death. This isolation may lead to further emotional distress in these individuals, because disclosure of their fears may become overburdening to their partners and others in their immediate support network (Davis, Cohen, & Apolinsky, 2005). In a study conducted by Davis et al. (2005), the authors interviewed 30 individuals with cancer to assess the effectiveness of providing social support to patients. They used qualitative data to assess the participants overall impressions of attending support groups (Davis et al., 2005). The results indicated the participants were most interested in attending support groups, which focused

on skills that helped them cope with their illness. The participants were also were also interested in learning new and alternative ways to deal with their disease (Davis et al., 2005).

In a review of the literature surrounding social support and adolescent cancer survivors conducted by Decker (2007), the author described adolescence as the developmental stage between the ages of 10 to 21. She goes on to state, “the ultimate goal of social support research should be to provide knowledge that can be translated into better assessment and intervention that would, in turn, result in better psychosocial outcomes” (Decker, 2007, p. 9). This level of support may also be seen in the immediate family.

As caregivers, the family may provide the most support a person will receive during his or her treatment; however the family may also be negatively affected. There has been a positive correlation between the patient’s diagnosis and higher levels of anxiety and depression seen throughout the family (Edwards & Clark, 2004). The reasoning has been suggested that the similarity in levels of depression and anxiety between patients and relatives suggests that common factors impact the whole family and is consistent with family systems theory, which asserts that individual events can reverberate throughout the whole family (Edwards & Clarke, 2004). In a study conducted by Edwards and Clarke (2004), the researchers surveyed the families of 48 cancer patients, and used several scales to measure their depression, anxiety, illness concerns, physical functioning, and family functioning. The instruments used in the research consisted of the *Beck Depression Inventory-Fast-Screen* (BDI-FS), the *State Anxiety Scale of the State-Trait Anxiety Inventory*, a four-item scale developed by the first author to measure illness concerns, the *Self-Rated Karnofsky Performance Scale*, and the *Family Relationship Index* (Edwards & Clarke, 2004; Beck, Guth, Steer, & Ball, 1997; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Wingard, Curbow, Baker, & Piantadosi, 1991; Moos

& Moos, 1986). The results indicated that the ability of families to act openly and express feelings were directly associated with lower levels of depression (Edwards & Clarke, 2004). This study also highlights the importance of family functioning and psychological adjustments of patients and relatives (Edwards & Clarke, 2004). Thus, the emotional support of family members and peer groups can contribute to the overall well being of the individual diagnosed with cancer.

Emotional Well Being

There are various emotions that coincide with a cancer diagnosis. The emotional well being of a patient can have an overall affect on how the individual processes the experience of the disease and how they will cope with the outcome. Asai, Fujimori, Akizuki, Inagaki, Matsui, and Uchitomi (2010) suggested that coping is a cognitive and behavioral effort to manage the internal and external demands of stressful situations, and such strategies affect psychological states as a moderating factor. This factor may influence the mood of the patient. In a study conducted by Akechi et al. (1999), the researchers consulted 362 patients with cancer for psychiatric services and diagnosed using the *Diagnostic and Statistical Manual for Mental Disorders*, 4th edition (DSM-IV, 1995). They found that individuals diagnosed with cancer also had factors associated with mood disorder, suicide risk, and had feelings of depression, hopelessness, pain, delirium, loss of control, exhaustion, and anxiety. They also stated that the most common psychiatric disorder was mood disorder (Akechi et al., 1999). Early intervention may become beneficial with this patient population regarding information on the mind-body connection as well as other therapeutic assessments (Hochhausen, Altmaier, McQuallen, Davies, Papadopolous, Carter, & Henslee-Downey, 2007). Hochhausen et al. (2007) stated, “it may also be helpful for patients to feel they have control over some aspects of treatment should be

encouraged to take responsibility over the aspects over which they do have control, for instance making choices between equally viable options” (p. 98).

When evaluating the emotional well being of the individual diagnosed with cancer, it is also important to examine how the different sexes are coping, whether they are the patient or the caregiver. In a study conducted by Langer, Yi, Storer, and Syrjala (2010), the authors found that chronic illness and its treatment impact not just the patient but also the family caregiver. This is particularly true when the primary caregiver is the patient’s spouse (Langer et al., 2010). The study was aimed toward 199 patients with an intervention consisting of a 90-minute group workshop, which focused on the trajectory of relationship adjustment and satisfaction over time as a function of role and gender (Langer et al., 2010). They concluded that women report higher levels of distress than males (Langer et al., 2010). This can also be seen in a study conducted by Ganz, Greendale, Petersen, Kahn, and Bower (2003), where they found that young women with breast cancer had higher levels of depression causing negative effects, such as fatigue, issues with body image, and sexual dysfunction. They go on to claim that emotional distress is more prevalent in women, 25-34 years of age (Ganz et al., 2003). The emotional well being of both men and women diagnosed with cancer can greatly effect the overall quality of life, and may be correlated to the successful outcome of their treatment.

Functional Well Being

The functional well being of an individual diagnosed with cancer may be closely connected to the social/family well being of the same population. Functional well being can be described as one’s ability to perform the activities related to one’s societal/familial role, including household and employment tasks (Ashing-Giwa & Lim, 2010).

The issue of employment has greater functional concerns, including work capacity, lack of job security, restricted career advancements, and lack of support in the workplace (Ashng-Giwa & Lim, 2010). In a study conducted by Steiner, Nowels, and Main (2010), the researchers interviewed 45 patients 32 months after their cancer diagnosis. The participants were interviewed using a semi-structured format that prompted the patients to express their ideas and experiences on a range of topics related to returning to work after cancer (Steiner et al., 2010). The researchers found that with the patients' cancer prognosis, modalities of treatment, socioeconomic status, attributes of the job itself, and the work environment appear to be important moderators of work return (Steiner et al., 2010). The diagnosis of cancer can have a multifaceted effect on future employment. Steiner et al. (2010) found the return to work after cancer may be met with barriers, such as comorbid medical conditions, low socioeconomic status, and the physical demands of the job itself are common. This was also relevant to the research conducted by Stewart, Cheung, Duff, Wong, McQuestion, Cheng, Purdy, and Bunston (2001), who studied 378 women breast cancer survivors two years disease free, and found that 56% felt that cancer had effected their work or career in various ways, with 12% feeling unable to fulfill their work and career potential. The researchers also concluded that the participants suggested that it might be helpful for newly diagnosed women with cancer to be aware of the potential impact of cancer upon work (Stewart et al., 2001). Stewart et al. (2001) also suggests that it may be helpful for women with newly diagnosed cancer to be aware of the potentially negative effects. These may result from indiscriminant disclosure of cancer history or risk, and to selectively confide only in those people or agencies, who are likely to be supportive or helpful in the longer term (Stewart et al., 2001).

When looking at the age of the individual diagnosed with cancer and the rate at which they returned to work, there are differences. In a study conducted by Mahar, BrintzenhofeSzoc, and Shields (2008), the researchers used a cross-sectional design utilizing data from the Economic Consequences of Cancer Survival study. The ECCS study was a longitudinal study conducted between 1999-2005, and was designed to answer research questions pertaining to the changes in employment before, during, and after diagnosis, treatment, and long term care (Mahar et al., 2008). They evaluated 369 women treated for breast cancer by a series of interview questions surrounding their work experience during their cancer diagnosis. The researchers found the most common reasons for the patients' inability to return to work were a nonsupportive work environment and the requirement of manual labor (Mahar et al., 2008). On the contrary, the return to work may have positive effects on the patients' overall quality of life, due to the social and financial support, a sense of structure and normalcy, and a restoration of a daily routine. Mahar et al. (2008) concluded that, "those women who were able to and chose to continue working throughout treatment, reported lower levels of distress, higher levels of physical functioning, and higher levels of quality of life than those women who either stopped working during treatment and returned to work post treatment, or those women who never returned to work" (p. 13). This research supports the notion that work experience during or after a cancer diagnosis will positively effect how the individual will cope with his or her disease in other areas of their well being. The choice of career by an individual often makes up their identity and how their work influences their view of themselves and the world (Mahar et al., 2008).

Potential Barriers to Using Group Work with Young Adults Diagnosed with Cancer

Patients are often overwhelmed with all of the elements coinciding with the occurrence of cancer, that the psychosocial aspects may be an afterthought. Research has shown that the involvement of the medical team can greatly increase the volume of patients seeking therapeutic interventions for improvement of their psychological quality of life (Holland, 1992). Soothill, Francis, Awwad, Morris, Thomas, and McIlmurray (2004) suggested that the hallmarks of psycho-oncology are a focus on the emotional and psychological responses of patients to their disease and its treatment; the measurement of emotional distress, and its treatment throughout psychotherapeutic of psychiatric interventions; the assessment of quality of life, measured in terms of patients' physical and emotional functioning; and a focus on the quality of clinicians' communication with patients.

When looking at the young adult population, the frequency of individuals diagnosed with cancer seeking therapeutic interventions, such as support groups, may be hindered by their overall approach to their disease. One study has shown that the psychological difficulties often go undetected in routine oncology care of patients, which is possibly due to under-diagnosis and under-treated symptoms (Recklitis, Licht, Ford, Oeffinger, & Diller, 2007). Recklitis et al. (2007) recruited 119 cancer survivors between 18 to 45 years old to measure their distress using the *Symptom Checklist-90-Revised* (SCL-90-R) (Derogatis, 1994). They concluded the physical and emotional challenges of active cancer therapy may give patients similar health states that serve as a more homogeneous basis of comparison from which to rate distress.

Several barriers may prolong the positive effects support groups can have on patients' therapeutic journey to a positive quality of life. For example, Danhauer et al. (2007) found that

although the researchers had designated a support group for young adult women with breast cancer, the participants wanted a more concise breakdown of the age brackets for greater commonality among group members. Participants made these comments to the facilitators during the group experience (Danhauer et al., 2007). The participants would have liked the group topics to be specific, including time since diagnosis, current treatment status, and presence of young children in one's life (Danhauer et al., 2007). In order to obtain an effective experience for the patients, clinicians may want to utilize different methods of promoting support groups. Roberts et al. (1997) suggested using intensive advertizing, recruitment, and planning efforts to attract the young adult patient population. They also go on to state, "a close-ended group with an attendance contract promotes group cohesion and reduces members' anxiety when a member does not want to attend. This anxiety is found in all groups but is exacerbated in a cancer survivors group, because group members fear for the absent member's physical well being" (Roberts et al., 1997, p. 139). Due to the diagnosis of cancer, group members may feel an absence of a participant could be linked to physical complications (Roberts et al., 1997).

The quality of the facilitator also is a key component to having a successful support group outcome. Along with the theory of psycho-oncology, the training of the therapist is crucial to maintaining the integrity of the practice (Holland, 1992). Classen et al. (2008) conducted a study using 177 breast cancer patients who received support group therapy over an approximated 9-month time interval. The researchers found no effect on distress for the brief support group therapy, and felt a certain limitation in their research was the quality of the group leader (Classen et al., 2008). Michalec (2005) found support group research was limited by only focusing on the benefits of participation in professionally led support groups, relied on random assignment of patients to support groups, and/or included underrepresented samples. When

looking at the older adult population, barriers may include a bias toward older persons among service providers, reluctance of older persons seeking counseling, and a lack of adequate training and supervised clinical practice with this population (Myers & Harper, 2004). This would allow counselors to be both comfortable with and effective in service to older patients (Myers & Harper, 2004). These barriers can be used to promote further research with the consideration of what other authors have found to skew their results, and may have more effective psychosocial outcomes for patients in the future.

Summary

This chapter included a review of the research and literature related to the theory of psycho-oncology and using support groups as a therapeutic approach to young adults diagnosed with cancer. The role of a psycho-oncology therapist was reviewed, and the societies designated to their practices were discussed. Along with implementing this psychotherapy, the psychosocial needs of individuals diagnosed with cancer were also addressed. Finally, the research examining potential barriers using group work with young adults with cancer was assessed for relevancy for this study.

When looking at the psychosocial aspects of cancer, the theory of psycho-oncology is fairly new, yet its practices have seen beneficial outcomes when utilized with patients of various ages, sexes, and diagnoses. Counseling individuals diagnosed with cancer may take different approaches depending on the patients' age, yet their support system plays a vital role at any point of their disease or developmental stage. The literature regarding the various psychosocial needs of the patients gave a perspective of the complex emotions and physical strains a cancer diagnosis has on everyone involved with the patient and their care. The body image issues can

greatly affect the psychological state of the patient, and women tend to turn to multiple forms of support to help aid them in their journey. When looking at the sexual functioning of the patient, the literature suggests that both males and females are impacted. The spouse of the patient is also having a reaction to the changes in lifestyle, such as the physical sexual functioning of the patient.

In the review of the literature, the physical, social/family, emotional, and functional well being of individuals with cancer is addressed. The physical well being explores the individuals' physical capacity while enduring treatment, and how his or her daily routine changes. The social/family well being was reviewed to show how the primary caregiver and support system is essential for the positive care of the patient, and how the social/family support may impact the amount of psychotherapy one feels is necessary during their experience with cancer. Next, the emotional well being literature was examined to see how the various emotions of an individual with cancer can impact the outcome of treatment and their overall sense of quality of life. The last well being considered was the functional side of the patient. The issues of work and the overall environment of the patient is considered to assess how this adds to their sense of self worth and accomplishments.

This chapter concluded with a discussion of the literature surrounding the potential barriers of the use of group work with older and younger adults diagnosed with cancer. After reading the material, the topics of group work and the participants should have more consideration in the pre-planning portion of creating an efficient support group. These barriers can also include the professional development of the facilitator, and making sure the credentials and qualifications of the individual running the group are of the appropriate nature. These

barriers may be applied to running support groups with individuals of various ages, sexes, and diagnoses.

Chapter Three

Methodology

This chapter contains a description of the methodology which was be used in this study. This chapter is organized into subsections that describe the purpose of the study, research questions with hypotheses, variables, participants, data collection, instruments, data analysis procedures, limitations, and assumptions.

Purpose of the Study

There are many facets to psycho-oncology that are important for further research. The broad range of the critical issues individuals endure over their course of diagnosis, treatment, and prognosis can be examined in much greater detail. The purpose of this study is to compare the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being for individuals diagnosed with cancer, by age and sex, to determine the extent of their interest in attending a support group. There has been research over the years, which addressed the issues of individuals diagnosed with cancer, but the patients who range in the age group of 18-40 years old have been largely overlooked. These young adult patients are presenting with higher levels of anxiety, poorer body image, and increased fears of recurrence (Roberts et al., 1997). Some research has shown that these patients report that their careers have suffered; they had problems with sex and fertility, as well as feelings of social isolation (Roberts et al., 1997). By comparing these groups, this study aims to evaluate the differences among the psychosocial needs of patients in order increase attendance.

Research Questions

General Question:

1. Are there age group differences (18-40 and 41-80 year olds) in the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?
2. Are there sex group differences (males and females) in the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?
3. Is there an interaction between age and sex in the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?

Research Question 1:

- 1a. Are there age group differences (18-40 and 41-80 year olds) in the body image of individuals diagnosed with cancer?
- 1b. Are there sex group differences (males and females) in the body image of individuals diagnosed with cancer?
- 1c. Is there an interaction between age and sex in the body image of individuals diagnosed with cancer?

H1 1:

1a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their body image.

1b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their body image.

1c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their body image.

Research Question 2:

2a. Are there age group differences (18-40 and 41-80 year olds) in the sexual functioning of individuals diagnosed with cancer?

2b. Are there sex group differences (males and females) in the sexual functioning of individuals diagnosed with cancer?

2c. Is there an interaction between age and sex in the sexual functioning of individuals diagnosed with cancer?

H1 2:

2a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their sexual functioning.

2b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their sexual functioning.

2c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their sexual functioning.

Research Question 3:

3a. Are there age group differences (18-40 and 41-80 year olds) in the physical well being of individuals diagnosed with cancer?

3b. Are there sex group differences (males and females) in the physical well being of individuals diagnosed with cancer?

3c. Is there an interaction between age and sex in the physical well being of individuals diagnosed with cancer?

H1 3:

3a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their physical well being.

3b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their physical well being.

3c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their physical well being.

Research Question 4:

4a. Are there age group differences (18-40 and 41-80 year olds) in the social/family well being of individuals diagnosed with cancer?

4b. Are there sex group differences (males and females) in the social/family well being of individuals diagnosed with cancer?

4c. Is there an interaction between age and sex in the social/family well being of individuals diagnosed with cancer?

H1 4:

4a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their social/family well being.

4b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their social/family well being.

4c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their social/family well being.

Research Question 5:

5a. Are there age group differences (18-40 and 41-80 year olds) in the emotional well being of individuals diagnosed with cancer?

5b. Are there sex group differences (males and females) in the emotional well being of individuals diagnosed with cancer?

5c. Is there an interaction between age and sex in the emotional well being of individuals diagnosed with cancer?

H1 5:

5a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their emotional well being.

5b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their emotional well being.

5c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their emotional well being.

Research Question 6:

6a. Are there age group differences (18-40 and 41-80 year olds) in the functional well being of individuals diagnosed with cancer?

6b. Are there sex group differences (males and females) in the functional well being of individuals diagnosed with cancer?

6c. Is there an interaction between age and sex in the functional well being of individuals diagnosed with cancer?

H1 6:

6a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their functional well being.

6b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their functional well being.

6c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their functional well being.

Research Question 7:

7a. Are there age group differences (18-40 and 41-80 year olds) in the extent to which individuals diagnosed with cancer would attend support groups?

7b. Are there sex group differences (males and females) in the extent to which individuals diagnosed with cancer would attend support groups?

7c. Is there an interaction between age and sex in the extent to which individuals diagnosed with cancer would attend support groups?

H1 7:

7a. There is a significant difference between the ages of individuals diagnosed with cancer 18-40 and 41-80 years old and their extent to attend support groups.

7b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their extent to attend support groups.

7c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their extent to attend support groups.

Variables

Independent Variables

The independent variables that will be observed in this study are the demographics of individuals diagnosed with cancer; specifically the variables of age, measured in two levels, 18-40 and 41-80 years old, and sex of the participants, measured in two levels, male and female. I created a demographic form to collect data on the age, sex, and race of the individuals in order to accurately identify the sample's characteristics.

Dependent Variables

The dependent variables in this study are the areas that include the body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of the individuals with cancer who are being observed in this study. First, I will collect the data on body image, using the *Body Image Scale* (BIS), which is designed for the assessment of body image in cancer patients (Hopwood et al., 2001). I will use the *Changes in Sexual Functioning Questionnaire* Short-Form (CSFQ-14) to obtain information on the sexuality of cancer patients (Keller et al., 2006). For the four sub-groups of well being, I will collect this information using the *Functional Assessment of Cancer Therapy-General* (FACT-G, Version 4) (Cella et al., 1999). There will also be additional questions pertaining to the willingness of attendance at support groups by individuals diagnosed with cancer, which I will create.

Participants

The population for this study will be individuals with a general diagnosis of cancer, who vary in age and sex. The sample will be individual patients of Tulane Cancer Center in New Orleans, Louisiana, and will range in diagnosis, age, race, religion, and sex. Approximately 100 individuals will be the minimum number of participants needed in this study.

Characteristics of the Sample

The sample in this study was 100 individuals diagnosed with cancer, who were patients of Tulane Cancer Center. The majority of the participants were female (60.6%). Table 1 includes descriptive statistics for the participants' sex.

Table 1
Frequency Distribution of Participants by Sex

Sex	<i>n</i>	%
Female	60	60.6
Male	39	39.4
Missing	1	1.0
Total	100	100.0

Participants' age ranged from 19 to 80 years old, with a mean of 52 ($SD=15.18$).

Descriptive data for participant's age are in Table 2.

Table 2
Frequency Distribution of Participants by Age

Age	Frequency	%
19	2	2.0
22	1	1.0
23	2	2.0
25	1	1.0
27	3	3.0
Table 2		

Frequency Distribution of Participants by Age Continued

Age	Frequency	%
28	1	1.0
29	1	1.0
30	2	2.0
31	3	3.0
33	2	2.0
34	2	2.0
38	1	1.0
40	1	1.0
41	4	4.0
43	3	3.0
45	2	2.0
46	1	1.0
47	2	2.0
48	4	4.0
49	1	1.0
50	1	1.0
51	2	2.0
52	1	1.0
53	3	3.0
54	6	6.0
55	4	4.0
56	2	2.0
57	4	4.0
58	1	1.0
59	2	2.0
60	2	2.0
61	1	1.0
62	3	3.0
63	3	3.0
64	2	2.0
65	3	3.0
66	5	5.0
67	1	1.0
68	4	4.0
69	3	3.0
70	1	1.0
71	1	1.0
72	1	1.0
75	1	1.0
76	1	1.0
77	1	1.0
78	1	1.0

Frequency Distribution of Participants by Age Continued

Age	Frequency	%
80	1	1.0
Total	100	100.0

Participants were asked to choose their race from the provided categories of Caucasian, African American, Hispanic, Asian, or Other. If Other was circled, participants were asked to state their identified race. 42.0% of the participants were Caucasian, 52.0% were African American, 2.0% of participants were Hispanic, while 0.0% were Asian, and 2.0% reported Other, however did not list their specified race. There were 2 participants who did not mark a race, and this is represented as missing in the following table. A frequency distribution of participants' race can be found in Table 3.

Table 3
Frequency Distribution of Participants by Race

Race	<i>n</i>	%
Caucasian	42	42.0
African American	52	52.0
Hispanic	2	2.0
Asian	0	0.0
Other	2	2.0
Missing	2	2.0
Total	100	100.0

Participants were asked to identify their marital status as either single, married, separated, divorced, or widowed. The largest group of participants identified themselves to be married (45.0%). Singles made up 34.0% of the sample, while 4.0% identified themselves as separated,

10.0% identified themselves as divorced, and 7.0% identified themselves as widowed. A frequency distribution of the marital status of participants can be found in Table 4.

Table 4
Frequency Distribution of Participants by Marital Status

Sexual Orientation	<i>n</i>	%
Single	34	34.0
Married	45	45.0
Separated	4	4.0
Divorced	10	10.0
Widowed	7	7.0
Total	100	100.0

Participants' years since diagnosed ranged from less than 1 year to 10 years or more, with a mean of 2 ($SD=16.67$). There were 2 participants who did not mark how many years since their diagnosis, and this is represented as missing in the following table. Descriptive statistics of participants' years since diagnosed are listed in Table 5.

Table 5
Frequency Distribution of Participants by Years Since Diagnosed

Years Since Diagnosed	Frequency	%
Less than 1 year	55	55.0
2 years	21	21.0
5 years	9	9.0
7 years	7	7.0
10 years or more	6	6.0
Missing	2	2.0

Table 5

Frequency Distribution of Participants by Years Since Diagnosed

Years Since Diagnosed	Frequency	%
Total	100	100.0

Participants were asked about their education level and were asked to choose between the categories of lower school education only, some high school, high school diploma, some college, college degree, or graduate school degree. 3.0% of the participants reported lower school education only, 9.0% marked some high school, 28.0% achieved a high school diploma, 34.0% had some college experience, 14.0% achieved a college degree, and 9.0% had a graduate school degree. There were 3 participants who did not mark the education level, and this is represented as missing in the following table. Descriptive statistics of participants' education level are listed in Table 6.

Table 6
Frequency Distribution of Participants by Education Level

Education Level	n	%
Lower school education only	3	3.0
Some high school	9	9.0
High school diploma	28	28.0
Some college	34	34.0
College degree	14	14.0
Graduate school degree	9	9.0
Total	100	100.0

Data Collection

The data for this study were be collected at Tulane Cancer Center. This institution is a multidisciplinary comprehensive cancer clinic, which provides treatment and follow-up care for individuals diagnosed with cancer. Tulane Cancer Center is a patient-focused, research-driven cancer care clinic, whose mission is to enhance teaching, research, and patient care (www.som.tulane.edu/cancer). This facility sees an average of 1,500 patients per year, whose backgrounds and cultures are uniquely diverse (www.som.tulane.edu/cancer). Before I began my data collection, I defended my proposed study to my dissertation committee, and then contacted the University of New Orleans and Tulane University Committees for Protection of Human Subjects Research (IRB), in order to have permission to execute the research and gather the data. I obtained this information on my sample participants with a survey design consisting of a demographic fact sheet, the B.I.S., CSFQ-14, FACT-G survey, and added questions pertaining to support groups for individuals diagnosed with cancer. I gathered this data by surveying patients of Tulane Cancer Center. My hope was to have 200 individuals to conduct this research study, but I had a minimum of 100 people participate.

Instruments

Body Image Instrumentation

In order to measure the body image of the individuals diagnosed with cancer, I will administer the *Body Image Scale* (BIS). This 10-item scale was constructed by Hopwood, Fletcher, Lee, and Ghazal (2000) in collaboration with the European Organization for Research and Treatment of Cancer (EORTC) and Quality of Life Study Group. The BIS was designed so that it could be implemented with any cancer patient group likely to experience body image

concerns due to their diagnosis and treatment outcome (Hopwood et al., 2000). The researchers stated, “internal consistency was measured using Cronbach’s alpha reliability coefficient with a minimum value of 0.70 for retaining items...Test-retest reliability was measured using the Pearson correlation coefficient and Wilcoxon signed ranked test” (Hopwood et al., 2000, p.191). The validity of the scale was seen when endorsement of test items and indications of redundancy or omission of important items were examined (Hopwood et al., 2000). Adding to the clinical validity, the response prevalence for each questionnaire item was obtained, and a criterion value of response by $\geq 30\%$ was used (Hopwood et al., 2000). The researchers also established the discriminant validity by assessing the basis of known group comparisons and the consistency of scores between like patient samples (Hopwood et al., 2000).

Changes in Sexual Functioning Questionnaire

Next, I collected information on the sexual functioning of individuals diagnosed with cancer, by using the demographics of age and sex to answer my research questions. I used the *Changes in Sexual Functioning Questionnaire*, Short Form (CSFQ-14) to obtain this data. This questionnaire is comprised of 14 items with a 5-point Likert scale, which provides the participant with an opportunity to self-evaluate his or her sexual behaviors or problems in a number of areas (Keller, McGarvey, & Clayton, 2006). There are separate forms designated for males and for females. The researchers for the CSFQ-14 calculated the reliability with Cronbach’s alpha coefficient. The computed alpha was 0.90 for the female version and 0.89 for the male version (Keller et al., 2006). The researchers also investigated the construct validity of the questionnaire using factor analysis, and a varimax rotation of the factor structure to maximize separation of the items into significant factors (Keller et al., 2006). For establishing validity, Keller et al. (2006)

found only question 14 did not have a primary positive loading of $> .40$ on the first factor, indicating overall that the scale had considerable factor unity (Keller et al., 2006).

Functional Assessment of Cancer Therapy-General

I included the *Functional Assessment of Cancer Therapy-General* (FACT-G (Version 4)) in my survey to measure the well being of individuals diagnosed with cancer. The questionnaire is divided into subgroups, which represent the four areas of well being analyzed in this study. These include physical, social/family, emotional, and functional well being. The reliability of the FACT-G is seen when the researchers report the test-re-test correlation coefficient as .92 (Cella et al., 1993). Cella et al. (1993) evaluated convergent validity by examining the association between the scores on the FACT-G and those of other similar measures completed at the same time. For example, they found the correlation with the *Functional Living Index-Cancer* (FLIC) was high at 0.79 (Cella et al., 1993).

Question Pertaining to Support Groups

Finally, I created two questions on my survey pertaining to the extent an individual is willing to attend a support group designed for his or her specific age and sex demographic. The question read:

To what extent would you attend a support group designed for all males or all females?

1 not attend 2 probably not attend 3 unsure 4 probably attend 5 would definitely attend

To what extent would you attend a support group designed for people similar in age to you?

1 not attend 2 probably not attend 3 unsure 4 probably attend 5 would definitely attend

Data Procedure

The individuals in this study are patients of Tulane Cancer Center. They are familiar with the setting and routinely visit the facility for doctor's appointments, treatment, and follow-up care. New patients are given prior directions by our receptionists, and will have the information needed to arrive at the clinic. Upon check in, the front desk administrators will ask patients for their participation. If the patient agrees, they will be given the letter of informed consent and the survey to be completed. Once the participant has finished, he or she will submit the survey to a locked drop box located in the waiting area of Tulane Cancer Center.

Data Analysis

For my data analysis, I used descriptive statistics, analysis of variance, and a multivariate analysis of variance on the data collected from my survey. My quantitative strategy is to run descriptive statistics for my demographic information.

The MANOVA will be used for research questions #1-6, and will allow me to examine 6 dependent variables, with two independent variables at once. The final research question, #7, will be answered on a Likert Scale of 1 to 5, and I used a 2-way ANOVA, which will allow me to gauge how the two independent variables affect one dependent variable, and analyze the results of the data collected in the surveys. All statistical data were analyzed using the SPSS 15.0 software program. Below is a list of each research question, and the statistical analysis that will be performed in this study:

Research Question 1:

- 1a. Are there age group differences (18-40 and 41-80 years old) in the body image of individuals diagnosed with cancer?
- 1b. Are there sex group differences (males and females) in the body image of individuals diagnosed with cancer?
- 1c. Is there an interaction between age and sex in the body image of individuals diagnosed with cancer?

Data Analysis:

- 1a. A multivariate analysis of variance will be used to compare the body image of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).
- 1b. A multivariate analysis of variance will be used to compare the body image of individuals diagnosed with cancer and the participants' sex group (male and female).
- 1c. A multivariate analysis of variance will be calculated using the body image of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 2:

- 2a. Are there age group differences (18-40 and 41-80 years old) in the sexual functioning of individuals diagnosed with cancer?
- 2b. Are there sex group differences (males and females) in the sexual functioning of individuals diagnosed with cancer?

2c. Is there an interaction between age and sex in the sexual functioning of individuals diagnosed with cancer?

Data Analysis:

2a. A multivariate analysis of variance will be used to compare the sexual functioning of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

2b. A multivariate analysis of variance will be used to compare the sexual functioning of individuals diagnosed with cancer and the participants' sex group (male and female).

2c. A multivariate analysis of variance will be calculated using the sexual functioning of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 3:

3a. Are there age group differences (18-40 and 41-80 years old) in the physical well being of individuals diagnosed with cancer?

3b. Are there sex group differences (males and females) in the physical well being of individuals diagnosed with cancer?

3c. Is there an interaction between age and sex in the physical well being of individuals diagnosed with cancer?

Data Analysis:

3a. A multivariate analysis of variance will be used to compare the physical well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

3b. A multivariate analysis of variance will be used to compare the physical well being of individuals diagnosed with cancer and the participants' sex group (male and female).

3c. A multivariate analysis of variance will be calculated using the physical well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 4:

4a. Are there age group differences (18-40 and 41-80 years old) in the social/family well being of individuals diagnosed with cancer?

3b. Are there sex group differences (males and females) in the social/family well being of individuals diagnosed with cancer?

4c. Is there an interaction between age and sex in the social/family well being of individuals diagnosed with cancer?

Data Analysis:

4a. A multivariate analysis of variance will be used to compare the social/family well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

4b. A multivariate analysis of variance will be used to compare the social/family well being of individuals diagnosed with cancer and the participants' sex group (male and female).

4c. A multivariate analysis of variance will be calculated using the social/family well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 5:

5a. Are there age group differences (18-40 and 41-80 years old) in the emotional well being of individuals diagnosed with cancer?

5b. Are there sex group differences (males and females) in the emotional well being of individuals diagnosed with cancer?

5c. Is there an interaction between age and sex in the emotional well being of individuals diagnosed with cancer?

Data Analysis:

5a. A multivariate analysis of variance will be used to compare the emotional well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

5b. A multivariate analysis of variance will be used to compare the emotional well being of individuals diagnosed with cancer and the participants' sex group (male and female).

5c. A multivariate analysis of variance will be calculated using the emotional well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 6:

6a. Are there age group differences (18-40 and 41-80 years old) in the functional well being of individuals diagnosed with cancer?

6b. Are there sex group differences (males and females) in the functional well being of individuals diagnosed with cancer?

6c. Is there an interaction between age and sex in the functional well being of individuals diagnosed with cancer?

Data Analysis:

6a. A multivariate analysis of variance will be used to compare the functional well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

6b. A multivariate analysis of variance will be used to compare the functional well being of individuals diagnosed with cancer and the participants' sex group (male and female).

6c. A multivariate analysis of variance will be calculated using the functional well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 7:

7a. Are there age group differences (18-40 and 41-80 year olds) in the extent to which individuals diagnosed with cancer would attend support groups?

7b. Are there sex group differences (males and females) in the extent to which individuals diagnosed with cancer would attend support groups?

7c. Is there an interaction between age and sex in the extent to which individuals diagnosed with cancer would attend support groups?

Data Analysis:

7a. A two-way analysis of variance will be calculated using the extent to attend and the participants' age.

7b. A two-way analysis of variance will be calculated using the extent to attend and the participants' sex.

7c. A two-way analysis of variance will be calculated using the extent to attend and the participants' age and sex.

Assumptions

There are also assumptions that can be made for this research that should be considered when conducting this study. First, I am assuming that this is an under-represented age population in the world of psycho-oncology. Second, I believe that the participants are answering the survey with accurate responses. Also, the patients will be completing the survey at Tulane Cancer Center, which could positively influence their responses. I am assuming the participants' answers to the survey are valid and realistic, and that their perceptual biases do not interfere with their responses.

Next, it is my opinion that the individuals would attend a support group if they felt their needs are being addressed. I am also assuming that the BIS, CSFQ-14, and FACT-G are valid

and reliable instruments. These assumptions will allow me shape the discussion portions of this study, and also help guide me to further research questions that can be asked when examining young adults diagnosed with cancer.

Limitations

There are several limitations to this study that should be addressed when reviewing this research. First, the data collection will be from participants affiliated with one oncology hospital and program in one local area, and the findings cannot be readily generalized to national or international data. Second, the participants in this study have various diagnoses of cancer, and the answers to the survey are general and not specific to a particular type of disease. Next, the individuals may not answer the survey truthfully, and there may be false reporting on their behalf. Due to the sensitive nature of the topic of their cancer, some participants may choose not to answer some questions they feel are too emotionally difficult. In concluding my results, these limitations should be noted while trying to interpret what the findings may mean for young adults diagnosed with cancer.

Chapter Four

Results

Purpose of the Study

The purpose of this research study was to assess the psychosocial needs of individuals diagnosed with cancer, by comparing the differences between the ages of 18-40 and 41-80 years old and sex of the participant, to determine their willingness to attend a therapeutic support group. The dependent variables I analyzed are body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of an individual diagnosed with cancer. I used the independent variables of sex and age groups of 18-40 and 41-80 year olds to determine the differences among the participants. The scales I used in this study addressed the body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of the patients. The instruments I used in the study are the *Functional Assessment of Cancer Therapy-General* (FACT-G), the *Body Image Scale* (B.I.S.), and the *Changes in Sexual Functioning Questionnaire-Short Form* (CSFQ-14) (Cella et al., 1993; Hopwood et al., 2001; Keller et al., 2006). I created additional questions in order to measure what extent an individual diagnosed with cancer is interested in attending a support group.

The goals of this study were to: (a) compare the body image of individuals diagnosed with cancer by their age group and sex group; (b) compare the sexual functioning of individuals diagnosed with cancer by their age group and sex group; (c) compare the physical well being of individuals diagnosed with cancer by their age group and sex group; (d) compare the emotional well being of individuals diagnosed with cancer by their age group and sex group; (e) compare

the social/family well being of individuals diagnosed with cancer by their age group and sex group; (f) compare the functional well being of individuals diagnosed with cancer by their age group and sex group; and (g) determine the willingness of individuals diagnosed with cancer to attend age group and sex group specific support groups.

Analysis of Research Questions

General Research Question

The broad question for this study was stated in three parts:

- a. Are there age group differences (18-40 and 41-80 year olds) in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?
- b. Are there sex group differences (males and females) in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?
- c. Is there an interaction between age and sex in the body image, sexuality, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer?

Tests of Hypotheses

The following hypotheses are derivative of the research questions of the study.

H1 1:

- 1a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their body image.

1b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their body image.

1c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their body image.

H1 2:

2a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their sexual functioning.

2b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their sexual functioning.

2c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their sexual functioning.

H1 3:

3a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their physical well being.

3b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their physical well being.

3c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their physical well being.

H1 4:

4a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their social/family well being.

4b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their social/family well being.

4c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their social/family well being.

H1 5:

5a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their emotional well being.

5b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their emotional well being.

5c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their emotional well being.

H1 6:

6a. There is a significant difference between individuals diagnosed with cancer 18-40 and 41-80 years old and their functional well being.

6b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their functional well being.

6c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their functional well being.

H1 7:

7a. There is a significant difference between the ages of individuals diagnosed with cancer 18-40 and 41-80 years old and their extent to attend support groups.

7b. There is a significant difference between the sexes of individuals diagnosed with cancer who are male or female and their extent to attend support groups.

7c. There is an interaction between the ages and sexes of individuals diagnosed with cancer and their extent to attend support groups.

Data Analysis

Research Question 1:

1a. Are there age group differences (18-40 and 41-80 years old) in the body image of individuals diagnosed with cancer?

1b. Are there sex group differences (males and females) in the body image of individuals diagnosed with cancer?

1c. Is there an interaction between age and sex in the body image of individuals diagnosed with cancer?

Data Analysis:

- 1a. A multivariate analysis of variance was used to compare the body image of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).
- 1b. A multivariate analysis of variance was used to compare the body image of individuals diagnosed with cancer and the participants' sex group (male and female).
- 1c. A multivariate analysis of variance was calculated using the body image of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 2:

- 2a. Are there age group differences (18-40 and 41-80 years old) in the sexual functioning of individuals diagnosed with cancer?
- 2b. Are there sex group differences (males and females) in the sexual functioning of individuals diagnosed with cancer?
- 2c. Is there an interaction between age and sex in the sexual functioning of individuals diagnosed with cancer?

Data Analysis:

- 2a. A multivariate analysis of variance was used to compare the sexual functioning of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

2b. A multivariate analysis of variance was used to compare the sexual functioning of individuals diagnosed with cancer and the participants' sex group (male and female).

2c. A multivariate analysis of variance was calculated using the sexual functioning of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 3:

3a. Are there age group differences (18-40 and 41-80 years old) in the physical well being of individuals diagnosed with cancer?

3b. Are there sex group differences (males and females) in the physical well being of individuals diagnosed with cancer?

3c. Is there an interaction between age and sex in the physical well being of individuals diagnosed with cancer?

Data Analysis:

3a. A multivariate analysis of variance was used to compare the physical well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

3b. A multivariate analysis of variance was used to compare the physical well being of individuals diagnosed with cancer and the participants' sex group (male and female).

3c. A multivariate analysis of variance was calculated using the physical well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 4:

4a. Are there age group differences (18-40 and 41-80 years old) in the social/family well being of individuals diagnosed with cancer?

4b. Are there sex group differences (males and females) in the social/family well being of individuals diagnosed with cancer?

4c. Is there an interaction between age and sex in the social/family well being of individuals diagnosed with cancer?

Data Analysis:

4a. A multivariate analysis of variance was used to compare the social/family well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

4b. A multivariate analysis of variance was used to compare the social/family well being of individuals diagnosed with cancer and the participants' sex group (male and female).

4c. A multivariate analysis of variance was calculated using the social/family well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 5:

5a. Are there age group differences (18-40 and 41-80 years old) in the emotional well being of individuals diagnosed with cancer?

5b. Are there sex group differences (males and females) in the emotional well being of individuals diagnosed with cancer?

5c. Is there an interaction between age and sex in the emotional well being of individuals diagnosed with cancer?

Data Analysis:

5a. A multivariate analysis of variance was used to compare the emotional well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

5b. A multivariate analysis of variance was used to compare the emotional well being of individuals diagnosed with cancer and the participants' sex group (male and female).

5c. A multivariate analysis of variance was calculated using the emotional well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

Research Question 6:

6a. Are there age group differences (18-40 and 41-80 years old) in the functional well being of individuals diagnosed with cancer?

6b. Are there sex group differences (males and females) in the functional well being of individuals diagnosed with cancer?

6c. Is there an interaction between age and sex in the functional well being of individuals diagnosed with cancer?

Data Analysis:

6a. A multivariate analysis of variance was used to compare the functional well being of individuals diagnosed with cancer and the participants' age groups (18-40 and 41-80 years old).

6b. A multivariate analysis of variance was used to compare the functional well being of individuals diagnosed with cancer and the participants' sex group (male and female).

6c. A multivariate analysis of variance was calculated using the functional well being of individuals diagnosed with cancer and the interaction of the participants' age and sex.

I used the SPSS 15.0 statistical package to analyze the data. The following MANOVA was conducted on the 100 participants who completed the survey. A correlation table was created to see if there were significant relationships among the dependent variables. There were significant correlations found with body image and sexual functioning ($p < .01$), body image and physical well being ($p < .01$), body image and emotional well being ($p < .01$), physical well being and emotional well being ($p < .01$), physical well being and functional well being ($p < .01$), social/family well being and emotional well being ($p < .01$), and social/family well being and functional well being ($p < .01$). These inter-relationships demonstrate the suitability of MANOVA procedures in the data analyses. The intercorrelations among the dependent variables are shown in Table 7.

Table 7
Intercorrelations among Dependent Variables

	Body Image	Sexual Functioning	Physical W/B	Social/Family W/B	Emotional W/B	Functional W/B
Body Image						
Pearson Correlation	1.000	-.290	-.486	-.218	-.549	-.253
Sig (2-tailed)		.003	.000	.029	.000	.011
Sexual Functioning						
Pearson Correlation	-.290	1.000	.192	.184	.234	.133
Sig (2-tailed)	.003		.056	.066	.019	.189
Physical W/B						
Pearson Correlation	-.486	.192	1.000	-.033	.448	.288
Sig (2-tailed)	.000	.056		.746	.000	.004
Social/Family W/B						
Pearson Correlation	-.218	.184	-.033	1.000	.317	.424
Sig (2-tailed)	.029	.066	.746		.001	.000
Emotional W/B						
Pearson Correlation	-.549	.234	.448	.317	1.000	.198
Sig (2-tailed)	.000	.019	.000	.001		.049
Functional W/B						
Pearson Correlation	-.253	.133	.288	.424	.198	1.000
Sig (2-tailed)	.011	.189	.004	.000	.049	

* W/B= Well Being

Means and standard deviations for age groups on body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being are shown in Table 8.

Table 8
Means and Standard Deviations of Dependent Variables by Age Groups

	<u>18-40 Year Olds</u>			<u>41-80 Year Olds</u>		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Body Image	5.44	4.28	22	8.14	7.81	78
Sexual Functioning	43.23	8.43	22	38.39	8.69	78
Physical Well Being	19.18	7.20	22	19.76	6.46	78
Social/Family Well Being	22.10	3.48	22	21.74	5.46	78
Emotional Well Being	18.58	3.97	22	18.20	5.04	78
Functional Well Being	17.51	5.46	22	17.91	6.84	78

A one-way multivariate analysis of variance (MANOVA) was conducted to determine

the effect of age groups on the areas of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being. There were no significant differences found between the age groups on the dependent measures, Wilks' $\Lambda = 0.92$, $F = 1.27$, $p > .01$. The results as follow up ANOVAs for body image were not significant, $F = 1.78$, $p > .01$, $\text{partial}\eta^2 = 0.02$. The ANOVA results for sexual functioning were not significant, $F = 4.01$, $p > .01$, $\text{partial}\eta^2 = 0.04$. The ANOVA results for physical well being were not significant, $F = 0.30$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results for social/family well being were not significant, $F = 0.01$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results for emotional well being were not significant, $F = 0.01$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results for functional well being were not significant, $F = 0.02$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results are displayed in Table 9.

Table 9
Analysis of Variance and Means and Standard Deviations on Subscales

	<u>18-40 Year Olds</u>			<u>41-80 Year Olds</u>			<i>df</i>	<i>F</i>	<i>p</i>	partial η^2
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>				
Body Image	5.44	4.28	22	8.14	7.81	78	1	1.78	0.19	0.02
Sexual Functioning	43.23	8.43	22	38.39	8.69	78	1	4.01	0.05	0.04
Physical Well Being	19.18	7.20	22	19.76	6.46	78	1	0.30	0.59	0.00
Social/Family Well Being	22.10	3.48	22	21.74	5.46	78	1	0.08	0.93	0.00
Emotional Well Being	18.58	3.97	22	18.20	5.04	78	1	0.01	0.91	0.00
Functional Well Being	17.51	5.46	22	17.91	6.84	78	1	0.02	0.88	0.00

A second MANOVA was conducted on the 100 participants who completed the survey comparing males and females. Means and standard deviations for sex groups on body image, sexual functioning, physical well being, social/family well being, emotional well being, and

functional well being are shown in Table 10.

Table 10
Means and Standard Deviations of Dependent Variables by Sex Groups

	<u>Males</u>			<u>Females</u>		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Body Image	5.73	6.52	39	8.71	7.51	61
Sexual Functioning	42.12	8.94	39	37.76	8.38	61
Physical Well Being	19.85	6.88	39	19.50	6.46	61
Social/Family Well Being	22.45	4.61	39	21.41	5.36	61
Emotional Well Being	19.05	3.75	39	17.79	5.35	61
Functional Well Being	16.77	7.12	39	18.50	6.10	61

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of sex groups on the areas of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being. There were no significant differences found between the sex groups on the dependent measures, Wilks' $\Lambda = 0.90$, $F = 1.77$, $p > .01$. The results for the ANOVA for body image were not significant, $F = 2.61$, $p = >.01$, $\text{partial}\eta^2 = 0.03$. The ANOVA results for sexual functioning were not significant, $F = 1.57$, $p < .01$, $\text{partial}\eta^2 = 0.02$. The ANOVA results for physical well being were not significant, $F = 0.78$, $p > .01$, $\text{partial}\eta^2 = 0.01$. The ANOVA results for social/family well being were not significant, $F = 0.02$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results for emotional well being were not significant, $F = 0.35$, $p > .01$, $\text{partial}\eta^2 = 0.00$. The ANOVA results for functional well being were not significant, $F = 2.22$, $p > .01$, $\text{partial}\eta^2 = 0.02$. The ANOVA results are displayed in Table 11.

Table 11
Analysis of Variance and Means and Standard Deviations on Subscales

	<u>Males</u>			<u>Females</u>			<i>df</i>	<i>F</i>	<i>p</i>	partial η^2
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>				
Body Image	5.73	6.52	39	8.71	7.51	61	1	2.61	0.11	0.03
Sexual Functioning	42.12	8.94	39	37.76	8.38	61	1	1.57	0.21	0.02
Physical Well Being	19.85	6.88	39	19.50	6.46	61	1	0.78	0.38	0.01
Social/Family Well Being	22.45	4.61	39	21.41	5.36	61	1	0.02	0.88	0.00
Emotional Well Being	19.05	3.75	39	17.79	5.35	61	1	0.35	0.56	0.00
Functional Well Being	16.77	7.12	39	18.50	6.10	61	1	2.22	0.14	0.02

Comparisons of the two groups were conducted on the total of the subscales of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being. None of the research hypotheses were supported in this analysis.

Research Question 7:

7a. Are there age group differences (18-40 and 41-80 year olds) in the extent to which individuals diagnosed with cancer would attend support groups?

7b. Are there sex group differences (males and females) in the extent to which individuals diagnosed with cancer would attend support groups?

7c. Is there an interaction between age and sex in the extent to which individuals diagnosed with cancer would attend support groups?

Data Analysis:

7a. A two-way analysis of variance was calculated using the extent to attend and the participants' age.

7b. A two-way analysis of variance was calculated using the extent to attend and the participants' sex.

7c. A two-way analysis of variance was calculated using the extent to attend and the participants' age and sex.

A two-way ANOVA was used to analyze the participants' willingness to attend support groups. This statistical test is used because the independent variables of age and sex are nominal dichotomous variables. Means and standard deviations for support group question 1 were computed for 18-40 year old males ($M=2.25$, $SD=1.83$), 18-40 year old females ($M=2.73$, $SD=1.56$) 41-80 year old males ($M=2.32$, $SD=1.31$), and 41-80 year old females ($M=2.95$, $SD=1.41$). The means and standard deviations are shown in table 12.

Table 12
Analysis of Variance and Means and Standard Deviations for Age and Sex on Support Group Question 1

	<i>M</i>	<i>SD</i>	<i>n</i>
18-40 Year Old Males	2.25	1.83	8
18-40 Year Old Females	2.73	1.56	11
41-80 Year Old Males	2.32	1.31	25
41-80 Year Old Females	2.95	1.41	44

The two-way ANOVA results of support group question 1 were not significant, age $F = 0.15$, $p > .01$, sex $F = 2.13$, $p > .01$, and age by sex $F = 0.04$, $p > .01$. The ANOVA results are shown in Table 13.

Table 13
Analysis of Variance Results on Support Group Question 1

	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	partial η^2
Age	1	0.32	0.15	0.70	0.00
Sex	1	4.44	2.13	0.15	0.03
Age x Sex	1	0.09	0.04	0.84	0.00
Error	84	2.08			

Means and standard deviations for support group question 2 were computed for 18-40 year old males ($M=1.87$, $SD=1.64$), 18-40 year old females ($M=2.82$, $SD=1.54$) 41-80 year old males ($M=2.33$, $SD=1.40$), and 41-80 year old females ($M=2.86$, $SD=1.46$). The means and standard deviations are shown in table 14.

Table 14
Analysis of Variance and Means and Standard Deviations for Age and Sex on Support Group Question 2

	<i>M</i>	<i>SD</i>	<i>n</i>
18-40 Year Old Males	1.87	1.64	8
18-40 Year Old Females	2.82	1.54	11
41-80 Year Old Males	2.33	1.40	24
41-80 Year Old Females	2.68	1.46	44

The two-way ANOVA results of support group question 2 were not significant, age $F = 0.42$, $p > .01$., sex $F = 3.55$, $p > .01$, and age by sex $F = 0.28$, $p > .01$. The ANOVA results are shown in Table 15.

Table 15
Analysis of Variance Results on Support Group Question 2

	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	partial η^2
Age	1	0.91	0.42	0.52	0.01
Sex	1	7.75	3.55	0.06	0.04
Age x Sex	1	0.61	0.28	0.60	0.00
Error	83	2.18			

Means and standard deviations for support group question 3 were computed for 18-40 year old males ($M=2.50$, $SD=1.70$), 18-40 year old females ($M=3.36$, $SD=1.70$) 41-80 year old males ($M=2.40$, $SD=1.41$), and 41-80 year old females ($M=3.14$, $SD=1.37$). The means and standard deviations are shown in Table 16.

Table 16

Analysis of Variance and Means and Standard Deviations for Age and Sex on Support Group Question 3

	<i>M</i>	<i>SD</i>	<i>n</i>
18-40 Year Old Males	2.50	1.70	8
18-40 Year Old Females	3.36	1.70	11
41-80 Year Old Males	2.40	1.41	25
41-80 Year Old Females	3.14	1.37	44

The two-way ANOVA results of support group question 3 were not significant, age $F = 0.18, p > .01$, sex $F = 4.34, p > .01$, and age by sex $F = 0.03, p > .01$. The ANOVA results are shown in Table 17.

Table 17

Analysis of Variance Results on Support Group Question 3

	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	
Age	1	0.38	0.18	0.67	0.00
Sex	1	9.19	4.34	0.04	0.05
Age x Sex	1	0.06	0.03	0.87	0.00
Error	84	2.12			

Summary

This chapter presented the results of how the age and sex of the participants affected the body image, sexual functioning, physical well being, emotional well being, social/family well being, functional well being, and their willingness to attend support groups.

The first research hypothesis anticipated there would be a difference between the age groups and sex groups when measuring body image. The 100 participants who completed all questions on each of the subscales were included in the analysis. The dependent variable of body image, both age and sex groups scored similarly, with no significant differences found. Individuals diagnosed with cancer from both age and sex groups scored very similar on body image, with no significant differences found.

The second research hypothesis stated there would be a difference between the age groups

and sex groups when measuring sexual functioning. The 100 participants who completed all questions on each of the subscales were factored into the results. The dependent variable of sexual functioning, both age and sex groups scored similarly, and no significant differences were found when looking at the sex groups and sexual functioning. Individuals diagnosed with cancer from both age and sex groups scored very similar on sexual functioning, and no significant differences were found between males and females and their sexual functioning scores.

The third research hypothesis stated there would be a difference between the age groups and sex groups when measuring physical well being. The 100 participants who completed all questions on each of the subscales were factored into the results. The dependent variable of physical well being, both age and sex groups scored similarly, with no significant differences found. Individuals diagnosed with cancer in both age and sex groups scored similarly on the physical well being subscale.

The fourth research hypothesis anticipated there would be a difference between the age groups and sex groups when measuring their emotional well being. The 100 participants who completed all questions on each of the subscales were factored into the results. The dependent variable of emotional well being, both age and sex groups scored similarly, with no significant differences found. Individuals diagnosed with cancer from both age and sex groups scored very similar on their emotional well being, with no significant differences found.

The fifth research hypothesis anticipated there would be a difference between the age groups and sex groups when measuring their social/family well being. The 100 participants who completed all questions on each of the subscales were factored into the results. The dependent variable of social/family well being, both age and sex groups scored similarly, with no significant differences found. Individuals diagnosed with cancer from both age and sex groups

scored very similar on their social/family well being, with no significant differences found.

The sixth research hypothesis anticipated there would be a difference between the age groups and sex groups when measuring their functional well being. The 100 participants who completed all questions on each of the subscales were factored into the results. The dependent variable of functional well being, both age and sex groups scored similarly, with no significant differences found. Individuals diagnosed with cancer from both age and sex groups scored very similar on their functional well being, with no significant differences found.

The seventh research hypothesis indicated there would be a difference between the age groups and sex groups when measuring their willingness to attend a support group. In order to determine if age groups and sex groups affected the willingness to attend a support group, a two-way ANOVA was conducted to analyze the responses of all 88 participants who completed the first support group question. Individuals diagnosed with cancer from both age and sex groups scored very similar on the first support group question, with no significant differences found.

In order to determine if the age groups and sex groups affected their willingness to attend a support group, a two-way ANOVA was conducted to analyze the responses of all 87 participants who completed the second support group question. Individuals diagnosed with cancer from both age groups and sex groups scored very similar on the second support group question, with no significant differences found. In order to determine if age groups and sex groups affected their willingness to attend a support group, a two-way ANOVA was conducted to analyze the responses of all 88 participants who completed the third support group question. Individuals diagnosed with cancer from both age groups and sex groups scored very similarly on the third support group question, with no significant differences found.

In Chapter Five, I discuss the findings in this study, and the results in terms of prior

research. I also discuss limitations of the study, as well as theoretical, practical, and research implications. Further, I will include recommendations for future research in the field of psycho-oncology and assessing the psychosocial needs of individuals diagnosed with cancer.

Chapter Five

Discussion

Chapter Five includes a summary and a discussion of the findings in this study. The results of the study are discussed in terms of prior research. Limitations of the study are listed and implications for the study for clinicians in the field of psycho-oncology are provided. I included recommendations for future research and concluded with a summary of the findings.

Purpose of Study

The purpose of this study was to assess the psychosocial needs of individuals diagnosed with cancer, by comparing the differences between the ages of 18-40 and 41-80 years old and the sex of the participant, to determine their willingness to attend a therapeutic support group. The dependent variables I analyzed were body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of an individual diagnosed with cancer. I used the independent variables of sex and age groups of 18-40 and 41-80 year olds to determine the differences among the participants' psychosocial needs and their willingness to attend to support groups. The scales I used in this study addressed the body image, sexuality, physical well being, social/family well being, emotional well being, and the functional well being of the patients. The instruments of the study were the *Functional Assessment of Cancer Therapy-General* (FACT-G) (Cella et al., 1993), the *Body Image Scale* (B.I.S.) (Hopwood et al., 2001), and the *Changes in Sexual Functioning Questionnaire-Short Form* (CSFQ-14) (Keller et al. 2006). I created additional questions in order to measure the extent an individual diagnosed with cancer is interested in attending a support group.

Discussion of Findings

This study extended Danhauer et al. (2007) and Roberts et al. (1997) research by focusing specifically on whether or not individuals diagnosed with cancer would attend a support group. These two studies found differences among the age and sex groups when assessing their psychosocial needs and willingness to attend support groups. My study focused on two different age and sex groups to examine whether or not their findings can be generalized to include the younger adults, older adults, males, and females. A survey design was used to measure the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being. I chose to focus on male and female patients who were 18-40 and 41-80 years old, because the research has seen differences among the age and sex groups. Roberts et al. (1997) empirically studied patients' age and willingness attend support groups. Roberts et al. (1997) research focused on young adults diagnosed with cancer, and their experiences attending support groups specific to their age group. Danhauer et al.'s (2007) research focused on female patients, and their experience when attending a support groups specific to their sex group. Thus, Danhauer et al. (2007) and Roberts et al. (1997) research are precursors to my study.

Other researchers have tested some of the variables that I explored, such as age and sex, when looking to treating the mental health interventions associated in the oncology field (e.g., Akechi et al., 1999; Ashing-Giwa et al., 2010; Cagle & Bolte, 2009; Edelman & Kidman, 1999; Holland, 2003; Markey & Markey, 2006). The results of those studies are conflicting, which is why I included two age and sex groups as variables in my study. Soothill et al. (2004) suggested that patients would benefit from a general support group that focus on general psychosocial issues experienced by all individuals dealing with cancer. When looking at the sex groups, these

results conflict with the Danhauer et al. (2008) finding that female patients were more comfortable attending a support group comprised of only women participants. In the results of this study, I found female patients do not have an increased willingness to attend support groups specific to their sex group, that is, they did not care whether potential groups were same sex or not. Therefore, it was important to examine the sex groups of individuals diagnosed with cancer to determine if sex is significant to the willingness of patients to attend support groups. When looking at the variable of age, Roberts et al. (1997) found a relationship between young adults diagnosed with cancer and their willingness to attend an age specific support group. My study helped clarify the conflicting results and supported the fact that the age and sex of the patient seemed irrelevant when examining a person's willingness to attend a support group in general.

In order to further extend Danhauer et al. (2007) and Roberts et al. (1997) findings, I measured the body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer in my study. My findings added to the limited body of literature on the factors that influence patients' willingness to attend age and sex specific support groups. I will explain the results of my research and the implications of the findings as they relate to individuals diagnosed with cancer.

Body Image

A multivariate analysis of variance was performed to examine the body image of individuals diagnosed with cancer and their age (Wilks' $\Lambda = 0.92, p > .01$) and sex (Wilks' $\Lambda = 0.90, p > .01$). There was no statistically significant relationship found between individuals between the ages of 18-40 and 41-80 years old (Wilks' $\Lambda = 1.79, p > .01$) or males and females (Wilks' $\Lambda = 2.61, p > .01$) and body image. The age groups result indicates a negligible effect size with a partial eta squared of 0.02, indicating that 2% of the variance in body image scores was

explained by individuals diagnosed with cancer in the two age groups. The sex group result indicated a similar negligible effect size with a partial eta squared of 0.03, indicating that 3% of the variance in body image scores was explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored low, which translated into having more of a positive body image rather than negative.

The body image findings suggest that the body image of individuals diagnosed with cancer may not be related to the age and/or sex of the patient. It seems logical that a patient going through the cancer treatment process may have similar side effects to others on various treatment protocols; therefore, they have a similar view on his or her body image. This finding contrasts with the study conducted by Zebrack and Chesler (2009) who found that the younger adult population worries more about how the experience of cancer might shape their self-image. The findings of my study seem to indicate that dealing with the effects of cancer can create a similar outlook on body image, no matter the age or sex of the individual. In a more recent study, Cagle and Bolte (2009) found that the physical treatment and side effects of cancer could affect the body image of all individuals. Therefore, the findings of my study are somewhat consistent with the theories and findings of previous research, such as Cagle and Bolte (2009) who saw no difference between body image and the age and sex of the patients who *participated* in their research.

Sexual Functioning

A multivariate analysis of variance was performed to examine the sexual functioning of individuals diagnosed with cancer and their age (Wilks' $\Lambda=0.92$, $p>0.01$) and sex (Wilks' $\Lambda=0.90$, $p>0.01$). There was no statistically significant relationship found among individuals

between the ages of 18-40 and 41-80 years old (Wilks' $\Lambda=4.01$, $p>.01$), nor the males and females (Wilks' $\Lambda=1.57$, $p<.01$) and sexual functioning. The age groups result indicated a very small effect size with a partial eta squared of 0.04, indicating that 4% of the variance in sexual functioning scores was explained by individuals diagnosed with cancer in the two age groups. The sex groups result indicated a negligible effect size with a partial eta squared of 0.02, indicating that 2% of the variance in sexual functioning scores was explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored high, which translated into having more of a negative sexual functioning.

The changes in sexual functioning findings suggest that the sexual functioning of individuals diagnosed with cancer may not be related to the age or sex of the patient. This finding complements the study conducted by Hodern and Street (2007) who used semi-structured interviews with 50 patients, and asked them questions regarding how their cancer diagnoses impacted their needs of intimacy and sexuality. They found that regardless of the patient's age, sex, culture, partnership status, or stage of cancer, the experience of being diagnosed with this disease had the potential to dramatically alter intimate and sexual aspects of a person's life. Therefore, the findings of my study are somewhat consistent with the theories and findings of Hodern and Street (2007) who did not find a relationship between the sex and age of the patient and his or her sexual functioning.

Physical Well Being

A multivariate analysis of variance was performed to examine the physical well being of individuals diagnosed with cancer and their age (Wilks' $\Lambda=0.92$, $p>0.01$) and sex (Wilks'

$A=0.90, p>0.01$). There was no statistically significant relationship found among individuals between the ages of 18-40 and 41-80 years old (Wilks' $A=0.30, p>.01$) or males and females (Wilks' $A=0.78, p>.01$) and physical well being. The age groups result indicated no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in physical well being scores were explained by individuals diagnosed with cancer in the two age groups. The sex groups result indicated a negligible effect size with a partial eta squared of 0.01, indicating that 1% of the variance in physical well being scores were explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored high, which translated into having more of a negative physical well being.

The physical well being findings suggest that the physical well being of individuals diagnosed with cancer may not be associated with the age and/or sex of the patient. Due to the difficult and strenuous nature of a cancer diagnosis, various aspects of an individual's physical capabilities may be altered no matter the age or sex of the patient (Newell, Sanson-Fischer, & Ackland, 1999). I found the results of this study to support the research conducted by Newell et al. (1999). Newell et al. (2009) found patients diagnosed with cancer experience higher levels of physical symptoms regardless of their age or sex. However, Joubert et al. (2001) found that the younger adult patient population has a more significant threat to their physical well being. The findings of my study seem to indicate that dealing with the physical effects of cancer can create more of a similar outlook on physical well being, no matter the age or sex of the individual. Therefore, the findings of my study are somewhat consistent with the theories and findings of previous research, such as Newell et al. (1999), found the physical well being of patients can be affected no matter the age or sex of the individual.

Social/Family Well Being

A multivariate analysis of variance was performed to examine the social/family well being of individuals diagnosed with cancer and their age (Wilks' $\Lambda=0.92$, $p>0.01$) and sex (Wilks' $\Lambda=0.90$, $p>0.01$). There was no statistically significant relationship found among individuals between the ages of 18-40 and 41-80 years old (Wilks' $\Lambda=0.07$, $p>.01$) or males and females (Wilks' $\Lambda=0.02$, $p>.01$) and social/family well being. The age groups result indicated no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in social/family well being scores were explained by individuals diagnosed with cancer in the two age groups. The sex groups result also indicated no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in social/family well being scores were explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored high, which translated into having more of a positive social/family well being.

The social/family well being findings suggest that the social/family well being of individuals diagnosed with cancer may not be associated with the age and/or sex of the patient. The findings of this study are at odds with the research conducted by Roberts et al. (1997) who found young adult patients worry more about alienation from peers and a vital family support system. Further topics, which are important to the young adult patient demographic include, anxiety about health, loss of physical well being, worry about children, problems in relationships, financial and vocational concerns, and feelings of unattractiveness (Roberts et al., 1997). However, Davis et al. (2005) concluded that individuals of various ages and sex were interested in seeking a support network during their cancer treatment, because the commonality of everyone in the group experiencing cancer created greater group cohesion. The findings of

my study seem to indicate that there is no discrepancy between the age groups and sex groups when assessing the psychosocial need for support throughout the treatment process. Therefore, the findings of my study are somewhat consistent with the theories and findings of the previous research of Davis et al. (2005), who found that the social/family well being of individuals diagnosed with cancer may not be associated with the age and sex of the patient.

Emotional Well Being

A multivariate analysis of variance was performed to examine the emotional well being of individuals diagnosed with cancer and their age (Wilks' $\Lambda=0.92$, $p>0.01$) and sex (Wilks' $\Lambda=0.90$, $p>0.01$). There was no statistically significant relationship found among individuals between the ages of 18-40 and 41-80 years old (Wilks' $\Lambda=0.01$, $p>.01$) or males and females (Wilks' $\Lambda=0.35$, $p>.01$) and emotional well being. The age groups result indicated no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in emotional well being scores were explained by individuals diagnosed with cancer in the two age groups. The sex groups result also indicated a no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in emotional well being scores were explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored high, which translated into having more of a negative emotional well being, rather than positive when addressing their emotional psychosocial needs during their experience with cancer.

The emotional well being findings suggest that the emotional well being of individuals diagnosed with cancer may not be associated with the age and/or sex of the patient. Due to the emotional effects on individuals battling cancer, the experience of having the disease seems to

have some effect on the overall outcome according to Asai et al., (2010). The findings of this study are congruent with the research conducted by Asai et al. (2010) who found all individuals diagnosed with cancer had factors associated with mood disorder, suicide risk, and feelings of depression. However, Langer et al. (2010) found that female patients report higher levels of distress than male patients. The findings of my study seem to indicate that there is no discrepancy between the age groups and sex groups when assessing the psychosocial need for emotional well being during the treatment process. Therefore, the findings of my study are somewhat consistent with the theories and findings of previous research, such as Asai et al. (2010) who found that all individuals diagnosed with cancer have a negatively effected emotional well being, regardless of the patient's age and sex.

Functional Well Being

A multivariate analysis of variance was performed to examine the functional well being of individuals diagnosed with cancer and their age (Wilks' $\Lambda=0.92, p>0.01$) and sex (Wilks' $\Lambda=0.90, p>0.01$). There was no statistically significant relationship found among individuals between the ages of 18-40 and 41-80 years old (Wilks' $\Lambda=0.02, p>.01$) or males and females (Wilks' $\Lambda=2.22, p>.01$) and functional well being. The age groups result indicated no effect size with a partial eta squared of 0.00, indicating that 0% of the variance in functional well being scores were explained by individuals diagnosed with cancer in the two age groups. The sex groups result indicated a neglible effect size with a partial eta squared of 0.02, indicating that 2% of the variance in functional well being scores were explained by individuals diagnosed with cancer in the two sex groups. When looking at the absolute value of the scores, the majority of the participants scored high, which translated into having more of a positive functional well

being, rather than a negative outlook on their functional psychosocial needs during their experience with cancer.

The functional well being findings suggest that the functional well being of individuals diagnosed with cancer may not be associated with the age and/or sex of the patient. The age and sex may not differ from how the patient is able to perform activities related to their societal/familial role, including household and employment tasks (Ashing-Giwa & Lim, 2010). The results I found in this study conflict with the research conducted by Mahar et al. (2008) who found female patients felt lower levels of distress and higher levels of physical functioning when able to continue working during their cancer treatments. However, Steiner et al. (2010) concluded that all patients are met with challenges and barriers to the functional well being while enduring the cancer experience. The findings of my study seem to indicate that there is no discrepancy between the age groups and sex groups when assessing a patient's functional well being throughout the treatment process. Therefore, the findings of my study are somewhat consistent with the theories and findings of previous research, such as Steiner et al. (2010), who found that regardless of a patient's age and sex, he or she has some negative affect on their functional well being.

Questions Pertaining to Support Groups

A two-way analysis of variance (ANOVA) was used to each of the three questions pertaining to support groups, which I created for the survey. This statistical test was the most appropriate to be used with the nominal dichotomous independent variables of age and sex. The first question asked the participants to answer the question:

“To what extent would you attend a support group?”

This question was answered on Likert Scale ranging from 1. Not attend to 5. Would definitely attend. A two-way analysis of variance was then performed on the 88 individuals who completed the *Support Group Question #1*. There was no statistically significant relationship found with the individuals between the ages of 18-40 and 41-80 years old ($F=0.15, p>.01$) and males and females ($F=2.13, p>.01$) and attending a support group. This result indicated a small effect size with a partial eta squared of 0.04, indicating that 4% of the variance in *Support Group Question #1* scores was explained by individuals diagnosed with cancer in the two age groups and sex groups. The majority of participants responded that he or she was not willing to attend a support group.

The second question asked the participants to answer the question:

“To what extent would you attend a support group designed for all males or all females?”

This question was answered on Likert Scale ranging from 1. Not attend to 5. Would definitely attend. A two-way analysis of variance was then performed on the 87 individuals who completed the *Support Group Question #2*. There was no statistically significant relationship found with the individuals between the ages of 18-40 and 41-80 years old ($F=0.45, p>.01$) and males and females ($F=3.56, p>.01$) and attending a support group designed for all males or all females. This result indicated a negligible effect size with a partial eta squared of 0.05, indicating that 5% of the variance in *Support Group Question #2* scores were explained by individuals diagnosed with cancer in the two age groups and sex groups. The majority of participants responded that he or she was not willing to attend a support group designed for all males or all females.

The third question asked the participants to answer the question:

“To what extent would you attend a support group designed for people similar in age to you?”

This question was answered on Likert Scale ranging from 1. Not attend to 5. Would definitely attend. A two-way analysis of variance was then performed on the 88 individuals who completed the *Support Group Question #3*. There was no statistically significant relationship found with the individuals between the ages of 18-40 and 41-80 years old ($F=0.15, p>.01$) and males and females ($F=2.13, p>.01$) and attending a support group designed for people similar in age to the participant. This result indicated a negligible effect size with a partial eta square of 0.07, indicating that 7% of the variance in *Support Group Question #3* scores were explained by individuals diagnosed with cancer in the two age groups and sex groups. The majority of participants responded that he or she was not willing to attend a support group designed for people similar in age to you.

This finding suggests that the attendance of individuals diagnosed with cancer may not be affected by the age and/or sex of the patient. The age and sex may not differ from the willingness a patient has in attending a support group. Research has shown that psychological interventions, such as support groups, may increase the psychological quality of life of all patients (Holland, 1992). The results I found in this study do not support the research conducted by Recklitis et al. (2007), who found young adult patients will relate more to individuals similar in age to them in a therapeutic setting, rather than those who differ from their age group. The results also contradict the research of Danhauer et al. (2007) who concluded that women preferred a support group to be formed with patients similar in age. The findings of my study seem to indicate that there is no discrepancy between the age groups and sex groups when assessing a patient's willingness to attend a support group while undergoing cancer treatment.

Therefore, the findings of my study are not consistent with the theories and findings of previous research, such as Danhauer et al. (2007) and Recklitis et al. (2007) who found that age and sex did have an affect on the willingness of patients to attend support groups. These studies concluded that individuals diagnosed with cancer felt more comfortable attending a support group where the participants felt a commonality in age and sex between themselves and the other members of the group (Danhauer et al. 2007, Recklities et al., 2007).

Limitations

The greatest limitation of this study was that only 35 participants filled out the survey in its entirety. The additional statistical technique of weighted averages were implemented to analyze a higher number of individuals' responses to subscales, and therefore all 100 individuals surveyed were included in the statistical results (Leech, Barrett, & Morgan, 2008). Although the effect sizes were small or non-existent, the practical significance is of some importance because the results are similarities among the patients who differ in age and sex. Identifying and assessing the needs of all patients may be helpful for researchers looking to implement psychosocial interventions in cancer programs as Holland (2003) has recommended. Also, the age group break down was broad, and maybe the differences within these groups are key to the age group differences. The age group of 18-40 year olds was selected as the young adult group, because individuals diagnosed in their 20s may continue treatment until they are 40, and this could delay some developmental milestones, such as moving out of their parents' house (Roberts et al., 1997). The age group of 41-80 year olds was chosen because individuals in this age range have accomplished more of the developmental stages of adulthood, and have established relationships which are affected by their disease from a different perspective than younger adults with cancer (Evans et al., 2001).

Further limitations to this study were that the participants' responses might not have been accurate. The possibility of false reporting exists in any survey design. Participants may not have responded accurately for any number of reasons. Due to the belief that individuals diagnosed with cancer should be sensitive to their psychosocial needs and negatively affected by any of their presenting issues, participants may have answered the questionnaire with "socially acceptable" answers. They may have responded, as society perceives individuals diagnosed with cancer, not as the patients they actually are. They were also at their doctor's appointment in a cancer treatment center, which may cause anxiety and less than accurate recollection and responding. Due to the sensitive nature of the topic of sexual functioning, some participants may have chosen not to answer questions they felt were too personal. Similarly, more conservative individuals may have chosen not to participate because they were uncomfortable with some of the topics. It is very likely that these individuals are uncomfortable addressing sexual functioning issues with their physician or caregiver, and the absence of their data in this study may affect the results. Because I surveyed patients of Tulane Cancer Center, the results do not reflect individuals of different clinic and environmental settings. Tulane Cancer Center is a multidisciplinary clinic, which primarily treats patients in the New Orleans metro area.

Implications

Theoretical

The results of this study have implications for a wide array of theoretical theories and techniques, which can be used in the assessment of psychosocial needs of individuals diagnosed with cancer. Professionals of psycho-oncology have used multiple tools and techniques from a range of theories and models. The wellness model, along with the use of existential, person-

centered, and cognitive behavioral therapy were integrated as the conceptual framework for this study.

This study indicated the importance of addressing the psychosocial well being of individuals diagnosed with cancer. The results showed that the age or sex of the patient does not affect their needs for psychosocial care when treating their disease. When utilizing the Wellness Model defined by Myers and Sweeney (2008) as a way of life oriented toward optimal health, psycho-oncology clinicians can encourage wellness, a positive state of well being, through developmental, preventative, and wellness enhancing interventions. In particular, the Wellness Model has been a staple construct in this area, and has merit in its effectiveness towards patients and their caregivers (Meyers & Sweeney, 2008). Wellness refers to positioning all the resources of the self so that they are neither competitive nor interfering with physical health, and are used to their maximum advantage in promoting wellness (Zimpfer, 1992). The results of this study indicated that the age or sex of the patient may not identify which psychosocial needs are the most pressing, and clinicians may utilize this information when approaching a mental health treatment plan with their patients.

Along with identifying these issues, the use of the cognitive behavioral theory has helped facilitate the practice of psycho-oncology. This model builds on psychosocial and behavioral interventions that show how to change a person's lifestyle to reduce cancer incidence (Holland, 2002). When analyzing the results of the four subscales of well being, the age and sex of the patient does not dictate how their disease will affect them physically, socially, emotionally, or functionally. It would seem by way of extrapolation that the use of cognitive behavioral therapy can aid psycho-oncology clinicians in tailoring a therapeutic process, which will help each individual regardless of their age or sex.

For many individuals in this cancer population, whether they are caregivers, friends, family, or the patients themselves, the questions they ask are often existential in nature. When looking at the data in this study, individuals scored similarly on the questions regarding emotional well being. The use of existential therapy can be incorporated by a psycho-oncology clinician to an individual who seeking guidance for existential questions about their illness and quality of life. One aim of the therapist may be to organize observations about the person's spiritual beliefs, behaviors, and relationships in ways that enhance caregiving (Holland, 1998). The patients' need to step outside of themselves, look at what makes up their belief system, and how that impacts the way they are choosing to live their life. When using the existential approach, clinicians want to encourage their patients to freely and honestly express whatever they are experiencing in the present, and try to make themselves aware of patterns they are repeating (Prochaska & Norcross, 2007). The results of this study showed that individuals diagnosed with cancer identified their psychosocial needs which were more existential in nature, such as questions pertaining to their emotional well being.

By adapting a psycho-oncology theory for the treatment of cancer patients, clinicians can draw from the previously mentioned approaches to help care for their patients. When considering the results of this study, the person-centered approach may be an appropriate fit due to its self-actualization theory. The psycho-oncology clinician can use skills of communication and person-centered methods with their patients to build personal and social competence (Donovan, 2008). The purpose of the person-centered approach is to use the context of cancer-related issues to foster supportive and health communication and build personal confidence (Donovan, 2008). This shift in focus alone helps the patient feel more like an individual, and not be categorized or stereotyped by their age or sex. This distinction, coupled with the trust in the

relationship between patient and therapist, will change the mental direction of the individual, and guide them on a new intellectual path of self-assessment.

Using these therapeutic approaches when working with individuals diagnosed with cancer may help facilitate communication on the psychosocial needs of patients. The findings in this study helped to illuminate that the variables of age and sex do not always determine how an individual will process their cancer in terms of body image, sexual functioning, physical well being, social/family well being, emotional well being, or functional well being. Focusing on each individual patient, and assessing their needs and willingness to attend a support group may be helpful in their overall treatment plan.

Practical

If clinicians in psycho-oncology strive to assess patients' psychosocial needs and willingness to attend support groups, they will likely provide better care to their targeted population. Although patients vary in age and sex, the results showed that they have little variance on their needs and issues. It is detrimental for clinicians to encompass all of the psychosocial needs with their patients to create optimal health (Holland, 1998). The assessment of the psychosocial issues of cancer will help detect and reduce the patients' negative implications of their diagnosis and their overall quality of life (Newell et al., 1999). Clinicians in psycho-oncology have an opportunity to utilize the findings of this study to improve services provided to patients by not tailoring interventions, such as support groups, to one age or sex group.

Future Research

Based on the findings of this study, I suggest that future research further explore the how other demographic data can affect the psychosocial needs of body image, sexual functioning, physical well being, social/family well being, emotional well being, and functional well being of individuals diagnosed with cancer. These results were only analyzed by the independent variables of age and sex, however the race, marital status, years diagnosed, and educational level information was also collected. The factors of age and sex did not have a significant impact on the psychosocial needs or willingness to attend support groups, however the other demographic data may have changed the results. Also, asking individuals what specific type of disease they have may have changed the data. More research should be conducted to explore these findings.

Additional research should explore what type of psycho-oncology interventions would the participants most likely attend. Individuals with cancer may not have wanted to attend a support group, but would have been interested in individual counseling. Also, if the question was asked about a specific disease type, the patients may have been more willing to attend a support group, which focused on their particular disease.

The study revealed individuals did not fill out the survey in its entirety. There are several reasons for this occurrence, which may be linked to the following circumstances. First, the individuals filled out the instrument while waiting in the many lobby of Tulane Cancer Center. If a patient was called back for his or her appointment, he or she may have stopped where they were in the questions, and submitted the document unfinished. Second, the individual was allowed to skip questions, which made them uncomfortable, and due to the nature of the subject matter, many participants may not have wanted to complete the survey, but submitted what they were willing to answer. Another possibility is that the participant skipped questions they felt did

not pertain to him or her. Future studies should consider these implications when selecting instruments or deciding the most appropriate method for distributing the instrument, and ways to encourage complete responding so partial data is not the result of data collection.

More research should be conducted to examine the relationship between these variables to see if a relationship truly exists. When looking at sex and the body image, physical well being, social/family well being, emotional well being, functional well being, and willingness to attend a support group, no significant relationships were found at the .01 level. More research should be conducted to examine the relationship between these variables to see if a relationship truly exists.

Based on the implications of this study, future research should examine the other demographic variables of individuals with cancer, besides age and sex, to see if there is a difference among the psychosocial needs of patients and their willingness to attend support groups. This empirical research could then be used to strengthen the models of psycho-oncology programs in multidisciplinary cancer centers.

Finally, qualitative data exploring patients' individual psychosocial needs and preferred methods of mental health interventions would add to the empirical data on the topic. Having individuals diagnosed with cancer describe how they identify and process their psychosocial needs in an open question format may yield more insight into this topic. The recount of personal experience may deem more valuable in future qualitative research in psycho-oncology.

Conclusions

The practice of psycho-oncology is a field, which is currently growing in the medical arena, and its interventions are aiding patients throughout their experience with cancer. Clinicians can assess the psychosocial needs of patients and help create a holistic approach to battling their disease in all areas of their life (Holland, 2003). Therefore, directly addressing which needs are appropriate for the patient will help the clinician navigate which tools and technique will benefit the individual diagnosed with cancer. Much of the research involving the practice of psycho-oncology applies various interventions, such as support groups, and has shown positive effects on not only the patients, but their families and caregivers as well (Weis et al., 1996). This study has helped show that the variables of age and sex do not have a significant affect on certain psychosocial needs or willingness to attend support groups in particular. The implications of this study can be used by psycho-oncology clinicians to improve services provided the mental health care of individuals diagnosed with cancer. It is hoped that the results of this study will help to inspire future clinicians in psycho-oncology to view the patients as individuals, whose needs are not defined by the age or sex, but how they would like to process and obtain their overall positive quality of life.

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<http://www.apos-society.org>

<http://www.i2y.org>

<http://www.ipos-society.org>

<http://www.som.tulane.edu/cancer>

Appendix A

Demographic Data

Please circle the item that closest identifies you:

1. Sex:
Male Female
2. Age: (list)_____
3. Race:
Caucasian African American Hispanic Asian Other: (list)_____
4. Marital Status
Single Married Seperated Divorced Widowed
5. Years since diagnosed
Less than 1 yr 2 yrs 5 yrs 7 yrs 10 yrs or more
6. Education Level
Lower School Education Only Some High School High School Diploma

Some College College Degree Graduate School Degree

Appendix B

Body Image Scale

In this questionnaire you will be asked how you feel about your appearance, and about any changes that may have resulted from your disease or treatment. Please read each item carefully, and place a firm tick on the line alongside the reply that comes closest to the way you have been feeling about yourself, *during the past week*.

Very much	Not at all	A little	Quite a bit
Have you been feeling self-conscious about your appearance?
Have you felt <u>less</u> physically attractive as a result of your disease or treatment?
Have you been <u>dissatisfied</u> with your appearance when dressed?
Have you been feeling <u>less</u> feminine/ masculine as a result of your disease or treatment
Did you find it difficult to look at yourself naked?
Have you been feeling <u>less</u> sexually attractive as a result of your disease or treatment?
Did you avoid people because of the way you felt about your appearance?

Have you been feeling the treatment has left your body less whole?	.....	.....	.....
Have you felt <u>dissatisfied</u> with your body?	.....	.....	.....
Have you been <u>dissatisfied</u> with the appearance of your scar(s)?	.....	.....	.....
	Not Applicable		.....

Appendix C

Changes in Sexual Functioning Questionnaire

NOTE: This is a questionnaire about sexual activity and sexual function. By sexual activity, we mean sexual intercourse, masturbation, sexual fantasies and other activity.

1. Compared with the most enjoyable it has ever been, how enjoyable or pleasurable is your sexual life right now?

- ☐ 1-No enjoyment or pleasure
- ☐ 2-Little enjoyment or pleasure
- ☐ 3-Some enjoyment or pleasure
- ☐ 4-Much enjoyment or pleasure
- ☐ 5-Great enjoyment or pleasure

2. How frequently do you engage in sexual activity (sexual intercourse, masturbation, etc.) now?

- ☐ 1-Never
- ☐ 2-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 4-Often (more than twice a week)
- ☐ 5-Every day

3. How often do you desire to engage in sexual activity?

- ☐ 1-Never
- ☐ 2-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 4-Often (more than twice a week)
- ☐ 5-Every day

4. How frequently do you engage in sexual thoughts (thinking about sex, sexual fantasies) now?

- ☐ 1-Never
- ☐ 2-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 4-Often (more than twice a week)
- ☐ 5-Every day

5. Do you enjoy books, movies, music or artwork with sexual content?

- ☐ 1-Never
- ☐ 2-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 4-Often (more than twice a week)
- ☐ 5-Every day

6. How much pleasure or enjoyment do you get from thinking about and fantasizing about sex?

- ☐ 1-No enjoyment or pleasure
- ☐ 2-Little enjoyment or pleasure
- ☐ 3-Some enjoyment or pleasure
- ☐ 4-Much enjoyment or pleasure
- ☐ 5-Great enjoyment or pleasure

7. How often do you become sexually aroused?

- ☐ 1-Never
- ☐ 2-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 4-Often (more than twice a week)
- ☐ 5-Every day

8. Are you easily aroused?

- ☐ 1-Never
- ☐ 2-Rarely (much less than half the time)
- ☐ 3-Sometimes (about half the time)
- ☐ 4-Often (much more than half the time)
- ☐ 5-Always

9. Do you have adequate vaginal lubrication during sexual activity?

- ☐ 1-Never
- ☐ 2-Rarely (much less than half the time)
- ☐ 3-Sometimes (about half the time)
- ☐ 4-Often (much more than half the time)
- ☐ 5-Always

10. How often do you become aroused and then lose interest?

- ☐ 5-Never
- ☐ 4-Rarely (much less than half the time)
- ☐ 3-Sometimes (about half the time)
- ☐ 2-Often (much more than half the time)
- ☐ 1-Always

11. How often do you experience an orgasm?

- ☐ 1-Never
- ☐ 2-Rarely (much less than half the time)
- ☐ 3-Sometimes (about half the time)

- ☐ 4-Often (much more than half the time)
- ☐ 5-Always

12. Are you able to have an orgasm when you want to?

- ☐ 1-Never
- ☐ 2-Rarely (much less than half the time)
- ☐ 3-Sometimes (about half the time)
- ☐ 4-Often (much more than half the time)
- ☐ 5-Always

13. How much pleasure or enjoyment do you get from your orgasms?

- ☐ 1-No enjoyment or pleasure
- ☐ 2-Little enjoyment or pleasure
- ☐ 3-Some enjoyment or pleasure
- ☐ 4-Much enjoyment or pleasure
- ☐ 5-Great enjoyment or pleasure

14. How often do you have painful orgasm?

- ☐ 5-Never
- ☐ 4-Rarely (once a month or less)
- ☐ 3-Sometimes (more than once a month, up to twice a week)
- ☐ 2-Often (more than twice a week)
- ☐ 1-Every day

_____ = Pleasure (Item 1)

_____ = Desire/Frequency (Item 2 + Item 3)

_____ = Desire/Interest (Item 4 + Item 5 + Item 6)

_____ = Arousal/Excitement (Item 7 + Item 8 + Item 9)

_____ = Orgasm/Completion (Item 11 + Item 12 + Item 13)

_____ = **Total CSFQ Score** (Items 1 to 14)

Appendix D

Functional Assessment of Cancer Therapy-General

Below is a list of statements that other people with your illness have said are important. **Please circle or mark one number per line to indicate your response as it applies to the past 7 days.**

<u>PHYSICAL WELL-BEING</u>		Not at all	A little bit	Some- what	Quite a bit	Very much
G P1	I have a lack of energy	0	1	2	3	4
G P2	I have nausea	0	1	2	3	4
G P3	Because of my physical condition, I have trouble meeting the needs of my family	0	1	2	3	4
G P4	I have pain	0	1	2	3	4
G P5	I am bothered by side effects of treatment	0	1	2	3	4
G P6	I feel ill	0	1	2	3	4
G P7	I am forced to spend time in bed	0	1	2	3	4

<u>SOCIAL/FAMILY WELL-BEING</u>		Not at all	A little bit	Some- what	Quite a bit	Very much
G S1	I feel close to my friends	0	1	2	3	4
G S2	I get emotional support from my family	0	1	2	3	4
G S3	I get support from my friends	0	1	2	3	4

G S4	My family has accepted my illness.....	0	1	2	3	4
G S5	I am satisfied with family communication about my illness	0	1	2	3	4
G S6	I feel close to my partner (or the person who is my main support)	0	1	2	3	4
Q1	<i>Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box and go to the next section.</i>					
G S7	I am satisfied with my sex life	0	1	2	3	4

Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

<u>EMOTIONAL WELL-BEING</u>		Not at all	A little bit	Some-what	Quite a bit	Very much
G E1	I feel sad	0	1	2	3	4
G E2	I am satisfied with how I am coping with my illness.....	0	1	2	3	4
G E3	I am losing hope in the fight against my illness.....	0	1	2	3	4
G E4	I feel nervous	0	1	2	3	4
G E5	I worry about dying	0	1	2	3	4
G	I worry that my condition will get worse.....	0	1	2	3	4

<u>FUNCTIONAL WELL-BEING</u>		Not at all	A little bit	Some-what	Quite a bit	Very much
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G F1	I am able to work (include work at home)	0	1	2	3	4
G F2	My work (include work at home) is fulfilling	0	1	2	3	4
G F3	I am able to enjoy life	0	1	2	3	4
G F4	I have accepted my illness	0	1	2	3	4
G F5	I am sleeping well	0	1	2	3	4
G F6	I am enjoying the things I usually do for fun	0	1	2	3	4
G	I am content with the quality of my life right now	0	1	2	3	4

Appendix E

Question Pertaining to Support Groups

Please Circle One Answer:

1. To what extent would you attend a support group designed for all males or all females?

1 not attend 2 probably not attend 3 unsure 4 probably attend 5 would definitely attend

2. To what extent would you attend a support group designed for people similar in age to you?

1 not attend 2 probably not attend 3 unsure 4 probably attend 5 would definitely attend

Appendix F

Permission to Use Instruments

Body Image Scale:

Dear Mary Kathryn:

You are very welcome to use the Body Image Scale. It is freely available

My only request is that you use the scale intact - some people add protocol specific items but those can be reported separately. That way comparison data is available across studies

Good luck with your study!

Let me know if you need any further info

Penny

Dr Penelope Hopwood

Visiting Professor of Psycho-Oncology

(University of Salford)

ICR Clinical Trials & Statistics Unit (ICR-CTSU)

Section of Clinical Trials

The Institute of Cancer Research

Sir Richard Doll Building

Cotswold Road

Sutton

SM2 5NG

Tel: 02087224171

penny.hopwood@icr.ac.uk

Changes in Sexual Functioning Questionnaire:

Mary Kathryn:

I think this is everything you will need. I will send you back a signed copy via fax of the licensure agreement for your files.

Good luck.

Anita Clayton

Functional Assessment of Cancer Therapy-General:

Hi Mary Kathryn,

The English version is free for anyone to use, so there's really no other information we need from you. I've attached the FACT-G and scoring materials. Let me know if you have any questions or if I can do anything else for you.

Kind regards,
Jason

Jason Bredle
FACIT.org
+1.773.807.9094

Appendix G

IRB Approval: University of New Orleans

***University Committee for the Protection
of Human Subjects in Research
University of New Orleans***

Campus Correspondence

Principal Investigator: Louis V. Paradise

Co-Investigator: Mary Kathryn Rodrigue

Date: May 20, 2010

Protocol Title: Psychosocial needs of individuals diagnosed with cancer by age and sex

IRB#: 03May10

The IRB has deemed that the research and procedures described in this protocol application are exempt from federal regulations under 45 CFR 46.101 category 2 due to the fact that this research will involve the use of interview procedures. Although information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects, any disclosure of the human subjects' responses outside the research wouldn't reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Exempt protocols do not have an expiration date; however, if there are any changes made to this protocol that may cause it to be no longer exempt from CFR 46, the IRB

requires another standard application from the investigator(s) which should provide the same information that is in this application with changes that may have changed the exempt status.

If an adverse, unforeseen event occurs (e.g., physical, social, or emotional harm), you are required to inform the IRB as soon as possible after the event.

Best wishes on your project!

Sincerely,

Robert D. Laird, Chair

UNO Committee for the Protection of Human Subjects in Research

Appendix H

IRB Approval: Tulane University



*Tulane Human Research Protection Program
Institutional Review Boards
Biomedical
Social Behavioral
FWA00002055*

DATE: May 19, 2010

TO: Mary Kathryn Rodrigue, M. Ed.
FROM: Tulane University Social-Behavioral IRB

STUDY TITLE: [159640-1] Assessing the Psychosocial Needs of Individuals Diagnosed with Cancer to Determine Support Group Attendance

IRB REFERENCE #: 10-159640EU

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: May 19, 2010

EXPIRATION DATE: August 31, 2010

REVIEW CATEGORY: Exemption Category # 45 CFR 46.101(b)(2)

Thank you for your submission of Exempt materials for this research study. It has been determined that this research meets the federal criteria for exemption.

Research Investigator submitted: (1) Protocol, Title of the Study: Assessing the Psychosocial Needs of Individuals Diagnosed with Cancer, by Age and Sex on Interest in Support Group Attendance; (2) Body Image Scale, Questionnaire; (3) CHANGES IN SEXUAL FUNCTIONING QUESTIONNAIRE (CSFQ-F-C); (4) Demographic Data Questionnaire; (5) FACT-G (Version 4) Questionnaire; (6) Question Pertaining to Support Groups Questionnaire; (7) UNO - LETTER OF CONSENT FOR ADULTS, Research information Sheet (no signatures); (8) Notification of support to conduct research at Tulane Cancer Center from Timothy Pearman, Ph.D., Director, Tulane Cancer Center.

Exemption from IRB review of research granted 05/19/2010 - 08/31/2010 in accordance with Federal regulation 45 CFR 46.101(b)(2); Research involving the use of survey procedures, interview procedures unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Any proposed changes to the research that could potentially change the exempt status must be submitted for review and approval prior to implementation, unless such a change is necessary to

avoid immediate harm to subjects, in which case the IRB must be notified as soon as possible.

If this research is going to extend beyond the expiration date noted above, you must request another exemption. When the research is complete, a Study Closure form must be submitted to the IRB.

Exempt studies are subject to institutional oversight including reviews and audits by the Human Research Protection Program.

If you have any questions regarding this approval, please contact the IRB office at (504) 988-2665 or irbmain@tulane.edu.

Sincerely,
/s/ Electronically signed
Mark James, PhD

Please note that actual signature by the IRB Chair(s) is not required for this document to be effective since it is generated by IRBNet pursuant to the IRB Chair's electronic signature and approval. This process is consistent with Federal regulations and Tulane standard operating policies with respect to the IRB and Human Research Protection Office, which consider electronically-generated documents as official notice to sponsors and others of approval, disapproval or other IRB decisions. Please refer to the HRPO website at <http://tulane.edu/asvpr/irb> to refer to Tulane's Electronic Signatures and Records Policy.

Vita

Mary Kathryn Clabert Rodrigue was born and raised in New Orleans, LA. She attended the University of Alabama, and received her Bachelor's of Science in Psychology in May of 2005. She then went on to attend the University of New Orleans, and earned her Master's in Counselor Education in May of 2007.

While pursuing her Master's degree, Mary Kathryn worked as an Intern at Trinity Counseling and Training Center and Pierre A. Capdau-University of New Orleans Early College High School. Here she had the opportunity to counsel individuals, families, couples, children, and groups. Upon graduation with her Master's degree, Mary Kathryn worked as the clinical mental health therapist and patient navigator at Tulane Cancer Center in the Department of Psycho-Oncology. Mary Kathryn is currently a candidate for the degree of Doctor of Philosophy in Counselor Education at the University of New Orleans, and is expected to graduate in December of 2010.

Mary Kathryn is a Licensed Professional Counselor (LPC) in the state of Louisiana, and a Nationally Certified Counselor (NCC). She is a member of the American Counseling Association (ACA), the Louisiana Counseling Association (LCA), the American Psychosocial Oncology Society (APOS), and the Chi Sigma Iota Honor Society. She is currently employed as the clinical mental health therapist and survivorship navigator for Mary Bird Perkins Cancer Center and Our Lady of the Lake Regional Medical Center in Baton Rouge, LA. In addition, Mary Kathryn is the co-founder of Y.A.T.S. (Young Adults Taking A Stand) Against Cancer, and serves on the Boards of the Leukemia and Lymphoma Society Louisiana/Mississippi Chapter and the Drew Rodrigue Foundation. Her research interests include psycho-oncology and young adults diagnosed with cancer.