THE EFFICACY OF ART THERAPY TO ENHANCE EMOTIONAL EXPRESSION, SPIRITUALITY, AND PSYCHOLOGICAL WELL-BEING OF NEWLY DIAGNOSED STAGE I AND STAGE II BREAST CANCER PATIENTS

By

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“Hope is the thing with feathers
That perches in the soul,
And sings the tune
Without the words
And never stops at all.”

Emily Dickinson
This dissertation is dedicated to my mother, Miltho Lady Figueroa de Puig, a clinician in her own right and the woman who planted the seed of this calling in my heart whence it now blossoms,

To the memory of my father, Hector Enrique Puig Alfonzo, the man who always introduced me as his daughter “the doctor.” I have finally earned the title you bestowed upon me so many years ago. I know your spirit smiles and lays blessings upon me from wherever you are. I miss you, Papi

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Breast cancer is the most common type of cancer among women in the United
States. The psychological impact of the disease may include adjustment disorders,
depression, and anxiety and may generate feelings of fear, anger, guilt, and emotional
repression. Emotional repression has been linked to women with breast cancer.
Emotional expression has been linked to better psychological adjustment and a higher
quality of life. Existential issues raised by a cancer diagnosis highlight the integration of
spirituality to cancer research, which has documented the beneficial role of spirituality in
alleviating existential anxiety evoked by a cancer diagnosis. The purpose of this study
was to determine the efficacy of a complementary art therapy intervention to enhance
emotional expression, spirituality, and psychological well-being in newly diagnosed
breast cancer patients.
Forty-four women with Stage I and Stage II breast cancer agreed to participate in this study. Subjects were randomly assigned to an experimental art therapy group or a control group of delayed treatment. Forty-one women completed the study in which they were offered individual art therapy sessions once weekly for four weeks. A total of 39 women were included in the final sample.

Multiple analyses of covariance and paired t-tests were used to analyze the results, which indicated that the intervention was not effective in enhancing the emotional approach coping style of emotional expression or the level of spirituality of subjects in this sample. However, participation in the art therapy intervention helped decrease negative emotional states and enhanced positive ones of experimental group subjects. These shifts in feeling states indicate that the women were able to process and express feelings during session in productive ways, a finding that is congruent with anecdotal clinical observations. Additionally, the creative art therapy intervention enhanced psychological well-being of women in this sample by decreasing tension-anxiety, depression-dejection, anger-hostility, and confusion-bewilderment; affective aspects of this construct. Finally, as hypothesized, the intervention did not effect changes in the physiological aspects of psychological well-being: vigor-activity and fatigue-inertia.
CHAPTER 1
INTRODUCTION

Overview

Breast cancer, second only to nonmelanoma skin cancers, is the most common type of cancer among women in the United States. An estimated 211,000 women will be diagnosed with the disease in 2003 (National Cancer Institute [NCI], 2003). A breast cancer diagnosis can have a profound impact on a woman's life and the lives of her significant others. Women struggling with the disease “may worry about caring for their families, keeping their jobs, or continuing daily activities. Concerns about tests, treatments, hospital stays, and medical bills are also common” (NCI, 2003).

Researchers have also documented the psychological impact of the disease; adjustment disorders, depression, and anxiety affect breast cancer patients’ ability to deal with everyday life stressors, and may generate feelings of fear, anger, guilt, and emotional repression (Glanz & Lerman, 1992; Razavi & Stiefe1, 1999; Tapper, 1999; van der Pompe, Antoni, Visser, & Garssen, 1996). Emotional repression has been linked to women with breast cancer (Greer & Watson, 1985; Lilja, Smith, Malmstrom, & Salford, 1998; Watson et al., 1991). Recent research found that recurring major depression predicted a higher incidence of breast cancer (Penninx et al., 1998). Depression and hopelessness have also been shown to predict mortality (Spiegel, 2001a). Spiegel added

Avoidance and distraction in the face of [breast cancer] is draining: It isolates one from others, makes it harder to manage the inevitable painful emotions that accompany serious disease and arduous treatment, and makes it difficult to plan additional means of coping. (p. 287)
The psychosocial issues at play in breast cancer patients’ lives warrant attention by medical professionals providing treatment. Ignoring these psychosocial variables may hinder medical science from achieving its ultimate goals of reducing cancer-related mortality and improving quality of life and psychological well-being (Glanz & Lerman, 1992).

The scientific discipline of psycho-oncology, which began over 40 years ago (Greer, 1999), focuses on the psychosocial aspects of oncology treatment (Hosaka, Sugiyama, Tokuda, & Okuyama, 2000), including the study of complementary, mind-body, and psychological therapies that may help cancer patients adjust to and cope with the physical, psychological, and emotional effects of cancer and its treatment. The National Center for Complementary and Alternative Medicine (NCCAM) defines complementary medicine as “a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. [Adding that] mind-body medicine [a form of complementary medicine] uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms” (National Institute of Health [NIH], 2002).

In addition to the conventional medical treatments for the disease, an estimated 33% to 85% of breast cancer patients reportedly use complementary, mind-body therapies (Jacobson & Verret, 2001; Maskarinec, Gotay, Tatsumura, Shumay, & Kakai, 2001; Richardson, Post-White, Singletary, & Justice, 1998). Technological and medical advances in cancer detection and diagnosis, and increasingly intensive treatments, have sparked greater attention to the psychosocial effects of breast cancer (Glanz & Lerman, 1992).
1992) and have also helped breast cancer patients become “the largest single category of cancer survivors” (Jacobson & Verret, 2001, p. 307).

Multiple research studies have explored the benefits of psychological and/or complementary, mind-body interventions on breast cancer patients’ emotional expression, psychological well-being, quality of life, and adjustment to the disease; these have included individual therapy (Lev & Owen, 2000; MacCormack et al., 2001), supportive psycho-educational group therapy (Edmonds, Lockwood, & Cunningham, 1999; Fukui, Kugaya, & Okamura, 2001; Greenstein & Breitbart, 2000; Helgeson, Cohen, Schulz, & Yasko, 1999, 2001; Montazeri et al., 2000), supportive expressive group therapy (Giese-Davis et al., 2002; Goodwin et al., 2001; Gore-Felton & Spiegel, 1999; Spiegel, Bloom & Yalom, 1981; Spiegel et al., 1999), supportive cognitive-behavioral group therapy (Antoni et al., 2001; Bloch & Kissane, 2000; Cunningham et al., 1998; Edelman, Lemon, Bell, & Kidman, 1999; Kissane et al., 1997; Watson, Fenlon, McVey, & Fernandez-Marcos, 1996), and mixed modalities group therapy, including psycho-education, stress management, guided imagery and/or hypnosis (Spiegel & Moore, 1997; Fawzy et al., 1990; Fukui, Kugaya, & Okamura, 2001; Hosaka et al., 2000; Simpson, Carlson, & Trew, 2001; Richardson et al., 1997; Spiegel & Bloom, 1983; Spiegel, Bloom, Kraemer, & Gottheil, 1989).

Critical reviews of the effects of psychosocial interventions on cancer (Andersen, 1992, 2002; Fawzy, Fawzy, Arndt, & Pasnau, 1995) and breast cancer patients (Glanz & Lerman, 1992; Tapper, 1999; van der Pompe et al., 1996) have also been done. A small number of qualitative studies have explored the benefits of the complementary, mind-body intervention of creative art therapy on breast cancer patients (G. Aldridge, 1996;
Cruze, 1998; Predeger, 1996) and we found one mixed (qualitative and quantitative) study on the subject (Dibbell-Hope, 2000).

Due to the existential issues raised by a cancer diagnosis, the importance of integrating spirituality in cancer research has been underscored (Kristeller, Zumbrun, & Schiling, 1999; Mytko & Knight, 1999). A number of studies have focused on the lived experience of spirituality (Chiu, 2000) and the role of spiritual well-being on quality of life and psychological adjustment of breast cancer patients (Brady, Peterman, Fitchett, Mo, & Cella, 1999; Cole & Pargament, 1999; Cotton, Levine, Fitzpatrick, Dold, & Targ, 1999; Feher & Maly, 1999; Gall, Miguez de Renart, & Boonstra, 2000; Mickley, Soeken, & Belcher, 1992).

The American Cancer Society [ACS] (2001) has acknowledged the value of a holistic approach to treatment, including the exploration and inclusion of complementary, mind-body, and psychological therapies to the conventional treatment regimen, and has encouraged cancer patients to “learn how a good attitude and healthy spirit may have positive physical effects.” Attending to and helping to alleviate breast cancer patients’ psychological distress “results in improved medical outcomes, reduced health care costs, and increased quality of life” (Payne, Hoffman, Theodoulou, Dosik, & Massie, 1999, p. 65). In addition, effectively treating depression symptoms in cancer patients “results in better patient adjustment, reduced symptoms, and may influence disease course” (Spiegel, 1996, p. 114). The purpose of this study was to determine the efficacy of a complementary, mind-body, creative art therapy intervention to enhance emotional expression, spiritual connectedness, and psychological well-being in newly diagnosed, Stage I and Stage II breast cancer patients.
Scope of the Problem

One of every eight women is at risk to receive a breast cancer diagnosis in her lifetime (ACS, 2001). Breast cancer is the second most common form of cancer, “accounting for nearly one of every three cancers diagnosed in American women,” with African-Americans more likely to die from the disease than Caucasians (ACS, 2002). The incidence of breast cancer by race and ethnicity (1996-2000) per 100,000 persons is 140.8 White (92.7 White Hispanic and 148.3 White Non-Hispanic); 121.7 Black; 97.2 Asian/Pacific Islander; 58 American Indian/Alaska Native; and 89.8 Hispanics of other races. Mortality rates (1996-2000) per 100,000 persons are 27.2 White (18.3 White Hispanic and 27.4 White Non-Hispanic); 35.9 Black; 12.5 Asian/Pacific Islander; 14.9 American Indian/Alaskan Native; and 17.9 Hispanics of other races (NCI, 2003).

Greer and Morris (1975) reported a statistically significant association between a breast cancer diagnosis and unhealthy release of emotions (extreme suppression and, less commonly, extreme expression). Watson et al. (1991) reported an association between emotional control and a fatalistic attitude about breast cancer. They also found a predicted low but significant association between helplessness and the control of anger and anxiety. Greer and Watson (1985) and Watson et al. (1991) have described a Type C behavior pattern associated with cancer patients, where suppression of anger is the predominant characteristic. Watson et al. reported that research has shown “women with breast cancer are more likely to control emotions than those with benign breast disease or healthy controls” (p. 51). The Type C personality is further described as characteristic of individuals who avoid expression of needs and feelings (i.e., believe it is useless to express these), and have a tendency to feel hopeless and helpless about their situation. Watson et al. also reported a “highly significant association (P < 0.0001) between a
fatalistic attitude toward the cancer diagnosis and the tendency to control negative emotions” (p. 53) (e.g., anger, anxiety, and depression) in Stage I and Stage II breast cancer patients. Lilja et al. (1998) also found confirming evidence that “inhibition and denial of aggression, probably associated with inability to set boundaries and lack of self-expression, was generally seen in this patient group” (p. 302).

Fernandez-Ballesteros, Ruiz, and Garde (1998) confirmed that in addition to emotional suppression, breast cancer patients are “ready to sacrifice their needs in order to achieve and maintain harmonious interpersonal relationships” (p. 41). Emotional suppression, the tendency to neglect personal needs, and attempts to harmonize relationships appear to contribute to the psychological distress of breast cancer patients. However, some researchers have indicated “there is not enough evidence that psychological factors like ‘ways of coping’ or ‘non-expression of negative emotions’, play a significant role in breast cancer” (Bleiker & van der Ploeg, 1999, p. 201).

Depression and adjustment disorders are common in this patient population and effective treatment for these psychiatric disorders has been shown to produce better psychological adjustment, reduction in unpleasant symptoms, such as pain, and longer survival time (Spiegel, 1996). However, research results are inconclusive about whether the Type C personality commonly associated with emotional suppression, preexisting emotional and/or psychiatric disorders, or psychological adjustment increases a woman’s risk of developing breast cancer or whether a breast cancer diagnosis affects emotional expression (i.e., leads to suppression of emotions), emotional or psychiatric morbidity and psychological adjustment.

In addition to emotional and psychological distress and adjustment, a breast cancer diagnosis puts women face-to-face with existential life-and-death issues that may
elicit a need to address spirituality (Cole & Pargament, 1999; Moadel et al., 1999). The spiritual domain is thought to provide “important and unique information, with both clinical implications and explanatory power [and] this information is lost when the spiritual domain is overlooked” (Brady et al., 1999, p. 426). Research that explored the role of spirituality in cancer patients’ experience of adjusting and coping with the disease, although increasing, remains limited.

Mickley et al. (1992) researched the roles of spiritual well-being, religiousness and hope on the spiritual health of women with breast cancer. Subjects classified as intrinsically religious (i.e., those who internalize and follow a religious creed faithfully) were found to have significantly higher scores on spiritual well-being than did extrinsically religious ones (i.e., those for whom religion is utilitarian: to provide security or as a social outlet). Hope scores were similar for both groups. The authors determined that “existential well-being, a component of spiritual well-being, was the primary contributor of hope” in the women (p. 267). The researchers concluded that both groups “may have been using religiousness in a functional manner, i.e., something to help them cope” (p. 272).

Smith et al. (1993) explored spiritual awareness, psychosocial distress and perceptions about death and dying in cancer patients. Research findings indicated a significant negative correlation between the level of spiritual development (based on a theoretical model of transpersonal development) and psychosocial distress. The authors suggested increased development of clinical strategies that facilitate spiritual growth in patients is needed. Carr and Morris (1996), who studied oncology social workers, echo this suggestion, adding that “interventions that support and reinforce patients’ spirituality
involve active listening and use of self to help patients explore . . . questions regarding life and death” (p. 71).

Moadel et al. (1999) researched spiritual and existential needs among an ethnically diverse cancer patient population and also underscored the importance of attending to spiritual beliefs and practices. Their research confirmed previous findings that as many as 33% (with ranges of 25%-51%) of cancer patients report their spiritual or existential needs go unmet in the course of treatment. The researchers also reported that ethnicity, proximity to diagnosis, and whether the subject is in partnership or married, are all related to the “existential plight in cancer,” defined as “a concern with life and death issues characteristic of the first few months after diagnosis” (p. 383).

Cotton et al. (1999) studied the relationships among spiritual well-being, quality of life, and psychological adjustment in women with breast cancer. The authors stated that subjects who reported high feelings of spiritual wellness also reported higher quality of life and better psychological adjustment. Feher and Maly (1999) studied the role of religious faith for women diagnosed with breast cancer in later life (n = 33, age 65). The authors reported that religious/spiritual belief and practice remained the same or increased post-diagnosis. The women indicated religion fulfilled three functions: providing emotional support to cope with the cancer (91%), social support (70%), and meaning-making ability (64%) during the experience of dealing with the disease.

Chiu (2000) explored the lived experience of spirituality in women with breast cancer. This hermeneutic phenomenological study sought to document themes emergent in the lived experience of Taiwanese women facing a breast cancer diagnosis and accessing spiritual resources to cope with the disease. The author emphasized the importance of context in understanding the lives of the women studied, in this case,
Eastern versus Western definitions of spirituality, and identified significant existential issues that face women with breast cancer through an Eastern perspective. Four larger themes emerged: Living Reality (pertains to facing the cancer diagnosis, accepting responsibility for healing, and appreciating life’s gifts); Creating Meaning (pertains to opening up to awareness of life’s purpose, finding ways to reframe the cancer experience and learn from it, embracing spirituality/religion as a way to cope); Connectedness: Self, Others, God (pertains to sensing personal and transcendental relationships and connecting with the empowerment resulting from these); and Transcendence (pertains to acceptance of suffering as part of life, surrender and liberation resulting from acceptance, and opening up to life and death as natural paths of the spirit). Chiu underscored the importance of approaching patients holistically and keeping cultural context at the forefront.

The role of religion in long-term adjustment to cancer has also been studied (Gall et al., 2000). Results indicated that religious coping behaviors and relationship with a Higher Being (e.g., God) are valuable resources in breast cancer survivors’ long-term adjustment. The authors reported women who held a benevolent image of God reported lower levels of psychological distress. Additionally, women who experienced God’s presence in their lives and felt a sense of God being in control of the relationship reported higher levels of optimism.

Cole and Pargament (1999) have developed spiritual, psychotherapeutic interventions for cancer patients geared toward spiritually oriented individuals. Preliminary findings of an outcome study utilizing this intervention appear “promising” (p. 405) at this stage of data collection. Although a limited number of qualitative studies have explored the efficacy of art therapy on breast cancer patients’ emotional expression
(G. Aldridge, 1996; Predeger, 1996) and one mixed method study explored psychological adaptation (Dibbell-Hope, 2000), we found no experimental studies that examined the efficacy of art therapy interventions on breast cancer patients’ spirituality or the role of spirituality on their psychological well-being and/or adjustment to the disease. This is a worthy area of inquiry that remains unexplored.

G. Aldridge (1996) contended for women with breast cancer “faced with expressing overwhelming feelings, challenged with adjusting to a new, radically altered future, the process of bringing their feelings into conscious form without any immediate verbal label may be a significant step on the road to recovery” (p. 220). Mental health counselors are in a unique position to contribute by assessing breast cancer patients’ ability to express difficult, negative emotions (e.g., anger, depression, and anxiety), providing creative art therapy interventions that may facilitate healthy emotional expression, and assisting women to cope with and adjust to the stressors associated with a breast cancer diagnosis and its treatment. Engagement in creative art therapy interventions may also help women to access personal spirituality as a way of coping with the disease (Samuels & Lane, 2000).

**Theoretical Framework and Rationale**

**Holistic Healing: Body, Mind, Emotions, and Spirit**

Weil (2002) defined health as a state of “wholeness and balance, an inner resilience that allows [one] to meet the demands of living without being overwhelmed” (p. 13). All aspects of self (i.e., body, mind, emotions, and spirit) play a role in the experience of functional health. Weil defined the process of healing as “restoring a state of perfection and balance that has been lost through illness or injury” (1997, p. 6). Achterberg (1992) defined healing as “creativity, passion, and love, a lifelong journey
toward wholeness, a recalling of things forgotten, an embracing of things feared, an opening of what is closed, a learning to trust life, a transcendence to an experience of the divine” (p. 31). This study and our creative art therapy intervention embraced a holistic approach to breast cancer patients’ experience of healing.

Greer (1999) underscored the importance of “delineation, measurement, and psychophysiology of positive states of mind [that] have been sorely neglected [and represent] a promising area for future research” (p. 236). This research study maintained a positive focus on breast cancer patients’ personal strengths. As researchers, we attempted to help subjects access these strengths through creative art therapy interventions that may facilitate emotional expression, spirituality and psychological well-being. Thus, guided by a holistic approach to the treatment of breast cancer patients, the conceptual backdrop to this study was the newly emerging field of positive psychology, in general, and Csikszentmihalyi’s (1990a, 1990b, 1996, 1997) theory of flow, specifically. Conceptual and research literature on the relationship of spirituality and health also informed our line of inquiry.

**Positive Psychology**

Positive psychology has recently emerged as “a science of positive subjective experience, positive individual traits, and positive institutions [that] promises to [help] improve” the quality of human lives (Seligman & Csikszentmihalyi, 2000, p. 5). Positive psychology emphasizes individual strengths and the belief in the human potential for growth and change. This relatively new framework underscores the positive meanings inherent in the emotional, psychological, and spiritual challenges individuals face in every day life. In the words of its chief proponents, Seligman and Csikszentmihalyi (2000):
The field of positive psychology at the subjective level is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. (p. 5)

A breast cancer diagnosis presents an enormous challenge to a woman’s sense of her self, her mind, her emotions, and her spiritual life (Cole & Pargament, 1999). Clinical oncology, which focuses on the physiological aspects of cancer diagnosis and treatment, has been increasingly collaborative with psycho-oncologists, who attend, additionally, to the emotional and psychological morbidity of breast cancer patients (Greer, 1999).

Mental health counselors committed to the positive psychology paradigm may play an integral role in the implementation of the complementary interventions that psycho-oncology explores. Traditionally, the fields of psychology and mental health counseling have almost exclusively focused on psychopathology and the medical model of psychiatric and psychological care (Seligman, 2002). In a departure from this model of care, this experimental study explored whether focused, creative art therapy interventions promote breast cancer patients’ individual creativity, access to personal strengths, emotional expression (e.g., emotion-focused coping), spirituality, and psychological well-being.

**Creativity and Flow**

Applied positive psychology encourages creativity and spirituality, and suggests that these traits can enhance an individual’s overall quality of life. Creativity is similar to the concept of flow as defined by Csikszentmihalyi (1990a); it refers to an autotelic experience that
Lifts the course of life to a different level. Alienation gives way to involvement, enjoyment replaces boredom, helplessness turns into a feeling of control, and psychic energy works to reinforce the sense of self, instead of being lost in the service of external goals. (p. 69)

The experience of being present is what engagement in the creative process awakens. Individuals focused on an act of creativity (e.g., painting, drawing, writing) describe moments of transcendence wherein their consciousness of time and place disappears and they experience an allegorical release from the stress of current life challenges, unresolved emotions, and internal conflicts, and sense a connectedness to all people and things (e.g., see Spaniol, 1995). These moments of transcendence encompass what Csikszentmihaly defined as the creative experience of flow.

Csikszentmihaly (1990b, 1996, 1997) has researched and written extensively on the subject of creativity. He stated that these explorations have led him to the conclusion “that in order to understand creativity one must enlarge the conception of what the process is, moving from an exclusive focus on the individual to a systemic perspective that includes the social and cultural context in which the ‘creative’ person operates” (1990, p. 190). It is important to make a distinction between a creative process that is rooted in cognition, intellect, and/or giftedness (Wallas, 1926, as cited in Solso, 1991; Torrance, 1995) and a creative process that may facilitate emotional expression, spiritual connectedness, and psychological well-being in clients. Our experimental research study focused on the latter.

Csikszentmihaly (1990b) credited the work of Magyari-Beck, a Hungarian researcher who developed a model of creativity research that takes into account qualitative and quantitative methodological options, as distinguishing “three main forms in which the creative process manifests itself: as a trait, as a process, and as a product”
This research study focused on the second form (process), as related to the counseling intervention of creative art therapy. Csikszentmihaly (1996) studied the creative process as it revealed itself in the work of creative individuals who represented a breadth of professional spheres (from scientists to writers, composers to fine artists). These in-depth interviews produced insights into the personally transforming aspects of the creative process and the experience of flow.

Based on his interviews, Csikszentmihaly (1996) identified nine elements that constitute the conditions of flow:

- In flow, we always know what needs to be done; we know how well we are doing; we feel our abilities are well matched to the opportunities for action; our concentration is focused on what we do; we are aware only of what is relevant here and now; we are too involved to be concerned with failure; we are too involved in what we are doing to care about protecting the ego; we forget time, and hours may pass by what seem like a few minutes; and, whenever most of these conditions are present, we begin to enjoy whatever it is that produces such an experience. (p. 111-113)

The poet Mark Strand described his flow experience with these words: “you’re right in the work, you lose your sense of time, you’re completely enraptured, you’re completely caught up in what you’re doing, and you’re sort of swayed by the possibilities you see in this work” (as cited in Csikszentmihaly, p. 121). His words captured the sense of timelessness inherent in the experience of flow. Csikszentmihaly proposed that an optimal experience of flow helps individuals make meaning of their life experiences, helps enhance the quality of their lives, and their psychological well-being.

According to Csikszentmihaly (1990a), individuals bring “order to the contents of the mind by integrating one’s actions into a unified flow experience” (p. 216). Creating meaning involves achieving purpose (having significant life goals), expressing intentionality (resolving to carry out our life purpose) and synthesizing purpose and
intentionality into a congruence of thoughts, feelings and actions that create a sense of harmony for the individual. “Purpose, resolution, and harmony unify life and give it meaning by transforming it into a seamless flow experience” (p. 218). This experimental study examined the way the creative art therapy process facilitates the experience of flow and emotional expression. Our functionalist view of emotional expression as a goal oriented (Campos, Mumme, Kermoian, & Campos, 1994), emotion-focused coping strategy (Stanton, Danoff-Burg, Cameron, & Ellis, 1994) is congruent with Csikszentmihaly’s conceptualization of the experience of flow as described herein.

**Spirituality and Health**

More than 90% of individuals living in the United States believe in the existence of a Higher Power (e.g., God; Kroll & Sheehan, 1989). Stanard, Sandhu, and Painter (2000) described spirituality as “a pervasive force in contemporary American society [that] is deeply influencing several helping professions such as counseling, education, medicine, nursing, psychology, [and] social work” (p. 204). Assessing and understanding the role spirituality plays in clients’ lives has been deemed an important part of mental and physical health care delivery (Fukuyama & Sevig, 1999; Kelly, 1995; Stanard et al. 2000; Woods & Ironson, 1999).

Griffith and Griffith (2002) defined spirituality as “a commitment to choose, as the primary context for understanding and acting, one’s relatedness with all that is, [adding that] with this commitment, one attempts to stay focused on relationships between oneself and other people, the physical environment, one’s heritage and traditions, one’s body, one’s ancestors, saints, Higher Power, or God” (p. 15-16). This definition captures the relational emphasis (Flemons, 2002; Gergen, 1994) that is central to this study. Religion, on the other hand, “solidifies [spirituality] into particular forms,
rituals, sacred scriptures, doctrines, rules of conduct, and other practices” (Anderson & Worthen, 1997, p. 5, as cited in Rivett & Street, 2001, p. 460). The terms are used interchangeably in much of the literature. The medical community, in research and practice, is paying increased attention to spirituality and attempting to understand its relationship to health and healthcare provision (Cook & Hetrick, 2001; Thoresen, 1999), a trend giving greater credence to research endeavors in this area.

Thoresen (1999) reviewed literature addressing spirituality and health and reported that there is “empirical evidence based on over 300 studies that demonstrated in many, but not all cases, that a positive relationship exists between spiritual, or religious factors, and health” (p. 294). He cautioned that correlation does not imply causality, and emphasized that attempts must be made to operationalize these constructs. His review of the literature presented physiological and psychological evidence that offers promise and possibility for further exploration of these relationships. Thoresen concluded with a note that “something called spiritual and/or religious seems to be often related positively to health status” and it is well-worth pursuing (p. 298).

Cook and Hetrick (2001) explored the relationship between religion, spirituality and health by conducting a meta-review of existing literature. Their primary focus was on religiousness as an aspect of spirituality. In keeping with our positive psychology framework, only findings pertaining to spirituality and health (not psychopathology) are highlighted. Cook and Hetrick begin with an analysis by Miller and Thoresen (1999) (who summarized work by Larson, Swyers, and McCullough, 1997) and reported the following: “when spiritual and religious involvement has been measured (even poorly), it has with surprising consistency been found to be positively related to health and inversely related to disorders” (p. 11). Chamberlain and Hall (2000) contended “it can be
said with some confidence that religion is positively associated with a sense of well-being, healthier self-esteem, and better personal adjustment” (p. 96). George, Larson, Koenig, and McCullough (2000) noted significant relations between religion and the delayed onset of several physical problems and also noticed that religion tends to be associated with longevity and better recovery from physical illness. Attendance to religious activities was often the strongest predictor of positive physical and mental health variables.

George et al. (2000) summarized three mechanisms by which religion might benefit health: (a) Religion leads to healthy behaviors, which in turn leads to better physical and mental health (accounts for 10% of variance); (b) participation in religious activities brings potential benefits of increased social support (accounts for 5%-10% of variance); and (c) the coherence hypothesis, which proposes that “religion benefits health by providing a sense of coherence and meaning so that people understand their role in the universe, the purpose of life, and develop the courage to endure suffering” (p. 11). Koenig, McCullough, and Larson (2001) reported that religiousness was beneficially related to a variety of physical health conditions (including lower incidence of cancer) as well as mental health variables (including higher sense of well-being, happiness, life satisfaction, hope, and optimism); McCullough, Hoyt, Larson, Koenig, and Thoresen (2000) completed a meta-analytic review of data from 42 independent studies and reported that “religious involvement was significantly associated with lower mortality” (p. 211). A salient point of this literature review is the call for research endeavors that use quantitative design and methods so causal relationships can be evaluated.

In a review of psychosocial research incorporating religiosity and spirituality into the study of physical and emotional illness, Mytko and Knight (1999) reported “religious
and spiritual beliefs and practices may provide physiological, affective, behavioral, and cognitive mechanisms for coping with illness and distress [adding that] cancer patients describe their religious beliefs as providing a profound method of coping with the disease” (p. 447). Creative art therapy interventions may help clients reconnect with themselves holistically and make meaning of their current life’s struggles. In recursive fashion, engaging in the creative process may enhance holistic healing, facilitate emotional expression, improve psychological well-being, and nurture personal spirituality and the optimal experience of flow. Our experimentally controlled study sought to explore these relationships.

**Emotional Expression**

The processing and expression of emotion as an adaptive function in the face of distressful events have received empirical support (Stanton, Kirk, Cameron, & Danoff-Burg, 2000). Stanton and Danoff-Burg (2002) added there is both experimental and correlational evidence providing “preliminary support for the important role of emotional expression for individuals who confront a cancer diagnosis” (p. 45). The idea of emotionally expressive coping is derived from a functionalist view of emotions (Stanton, Parsa, & Austenfeld, 2002) and represents a departure from the traditional view of intense emotional expression as dysfunctional and irrational (Averill, 1990, as cited in Stanton et al., 2002). A functionalist view of emotions holds that emotions are relational and contextual (i.e., they cannot be understood alone or as intra-psychic processes; Campos et al., 1994). Levenson (1994) presented a functionalist outlook of emotions as short-lived psychological-physiological phenomena that represent efficient modes of adaptation to changing environmental demands. Psychologically, emotions alter attention, shift certain behaviors upward in response hierarchies, and activate relevant associative networks in memory. Physiologically, emotions rapidly organize the responses of different biological systems including facial expression,
muscular tonus, voice, autonomic nervous system activity, and endocrine activity to produce a bodily milieu that is optimal for effective response. Emotions serve to establish our position vis-à-vis our environment, pulling us toward certain people, objects, actions, and ideas, and pushing us away from others. Emotions also function as a repository for innate and learned influences, possessing certain invariant features along with others that show considerable variation across individuals, groups, and cultures. (p. 123)

Stanton et al. recommended “distinguishing, both conceptually and empirically, among the emotion-focused strategies that involve active movement toward (e.g., active acceptance, emotional expression, positive reappraisal) versus away from (e.g., mental disengagement) a stressful encounter” (p. 151). The authors also emphasized the need for more accurate operationalization of emotional approach coping, and increasing the focus on its adaptive potential.

In order to improve the operationalization of emotional approach (i.e., emotion-focused) coping, Stanton, Kirk, et al. (2000) developed a scale to measure emotional approach coping and have tested it on breast cancer patients (Stanton, Kirk, et al., 2000; Stanton & Danoff-Burg, 2002). They noted that emotional approach coping is comprised of two factors and both are assessed in the measure: emotional processing and emotional expression. Our selective focus on emotional approach coping will obviate the extensive body of extant literature pertaining to other adaptive coping approaches (e.g., Carver et al., 1993; Lazarus & Folkman, 1984). Stanton and Danoff-Burg (2002) contended that “the best known research on psychological intervention with cancer patients involves an explicit emotional expression component” (p. 37) that has been deemed central to treatment.

Research literature on emotional expression and cancer has addressed two questions: “First, does emotional expression play a role in the initiation or progression of the disease? Second, does emotional expression facilitate or hinder adjustment in those
who confront a cancer diagnosis?” (Stanton & Danoff-Burg, 2002, p. 32). Servaes, Vingerhoets, Vreugdenhil, Keunig, and Broekhuijsen (1999) researched inhibition of emotional expression in breast cancer patients as compared to healthy controls and concluded that cancer patients’ “inhibited behavior is a reaction to the disease rather than a reflection of a personality characteristic predisposing an individual to breast cancer” (p. 23). Stanton and Danoff-Burg (2002) cautioned researchers to “take great care in concluding that personality factors are relevant in light of the potential for victim blaming” (p. 45). This research study addressed the potential role of emotional expression in enhancing psychological well-being, not its hypothesized role on initiation or progression of the disease.

Some correlational (longitudinal and cross-sectional) research studies have reported poorer psychological adjustment (Compas et al., 1999) and emotional well-being (Cohen, 2002) may occur in subjects who experienced intense discharge of negative emotion. Research studies have been conducted that implemented supportive-expressive group therapy to encourage and facilitate emotional expression in cancer patients (Giese-Davis et al., 2002; Goodwin et al., 2001; Gore-Felton & Spiegel, 1999; Spiegel, Bloom & Yalom, 1981; Spiegel et al., 1999). We found no research studies that used individual therapy interventions to explore the role of emotional expression or emotional approach coping on the psychological well-being of breast cancer patients.

The multi-center study of Spiegel et al. (1999) of Stage I and Stage II breast cancer patients receiving supportive-expressive group therapy yielded significant positive results, including a 40% decrease in total mood disturbance scores of the Profile of Mood States (POMS) and a reduction in total symptom scores of anxiety and depression of the
Hospital Anxiety and Depression Scale (HADS). The authors concluded that supportive-expressive group psychotherapy resulted in reduced overall distress.

Gore-Felton and Spiegel (1999) conducted a literature review on the effectiveness of supportive-expressive group psychotherapy and concluded “there is a growing body of evidence suggesting that support groups for women with breast cancer are successful at improving psychological, social and physiological well-being” (p. 284). The authors also reported that a crucial component of supportive-expressive group therapy is the encouragement of open emotional expression about the disease.

Stanton et al. (1994) argued that current research results on the role of emotional expression in cancer adjustment were confounded by the researchers’ use of instrumentation that includes psychopathology- or psychological distress-related items. In response to this problem, Stanton et al. (2000) developed a new scale to measure emotion-focused coping (the Emotional Approach Coping Scale) that is reportedly not confounded with extraneous variables. Using the newly developed instrument to research the influence of emotion-focused coping on women’s adjustment to breast cancer, the authors reported positive psychological adjustment in cases involving intentional efforts to emote. The authors also reported that patients who expressed emotions about the cancer diagnosis and treatment at the beginning of the study reported increased self-perceptions of physical health and vigor, decreased stress, and fewer medical appointments for cancer-related complaints, such as pain, than did the less expressive individuals. Finally, Stanton et al. (2002) proposed “coping through emotional processing and expression is an important area of inquiry for positive psychology” (p. 150). Within a positive psychology theoretical orientation, this research study explored whether a creative art therapy intervention could facilitate emotional expression.
and enhance psychological well-being in newly diagnosed, Stage I and Stage II breast cancer patients.

**Creative Art Therapy**

The relationship between spirituality, creativity, and healing has been conceptually and theoretically explored in the psychotherapy and health (physical and mental) disciplines with increased frequency (Cook & Hetrick, 2001; Thoresen, 1999). Creativity and spirituality have been named as two positive individual traits that can potentially enhance the quality and well-being of human lives (Seligman & Csikszentmihalyi, 2000). Rivett (2000) reported both spirituality and creativity as significant emergent issues in a thematic review of family therapy journals. Our research study explored the relationships among these constructs and their role in breast cancer patients’ experience of the disease.

Innovative treatment interventions are being proposed, developed, and researched that transcend the realm of traditional psychotherapeutic practices and address the role of spirituality in emotional and psychological healing (Katra & Targ, 2000). The use and application of creativity through art therapy is one such treatment option. Promoting creativity and the experience of flow through an art therapy intervention may facilitate breast cancer patients’ emotional expression and enhance self-reported levels of spirituality and psychological well-being.

Art therapy as a counseling discipline has been evolving within and outside the counseling field since the 1940s when Naumburg, a psychoanalyst, began exploring art as a way of analyzing clients’ unconscious material (Wadeson, 1980). Creative art therapy has evolved into a strategy for healing, as well as a strategy for diagnosis and treatment.
The creative process that art therapy facilitates has been described as a way to “uncover memories and recover feelings [and] a process of self-expression that allows [one] to act out painful emotions, attain a cathartic sense of release, and experience a repertoire of varied emotions” (Spaniol, 1995, p. 227). The process of art making has been described as a healing journey and as more important than the final product; the process itself is described as a healing experience and often includes a reference to spirituality as a significant contributing factor (Farrelly-Hansen, 2001; Spaniol, 1995).

Creativity in the form of painting, drawing, making music, dancing, and writing (i.e., journaling prose or poetry) may serve as a vehicle for the expression and management of difficult emotional states and offer relief for clients receiving psychological counseling and/or medical treatment for life threatening illnesses. Stanton and Danoff-Burg (2002) have reported beneficial outcomes in research with breast cancer patients using the standard expressive writing paradigm (Pennebaker & Beall, 1986) for intentional emotional expression and release. Creative art therapy interventions may help decrease ego defenses that keep intense emotions suppressed within the individual and allow for their expression in non-linear, non-verbal ways; some art therapists have also emphasized “the integrative and healing properties of the creative process itself, which does not require verbal reflection” (Wadeson, 1980, p. 13).

Creative art therapy interventions have been shown to enhance emotional expression, spiritual connectedness, and psychological well-being of breast cancer patients (G. Aldridge, 1996; Cruze, 1998; Dibbell-Hope, 2000; Predeger, 1996; Stanton & Danoff-Burg, 2002). Creative art therapy may facilitate the autotelic experience of flow through the creative use of a specific art medium. Breast cancer patients engaged in the creative act can learn to open up to the nine conditions of flow. Once internalized,
assimilated, and experienced, an optimal experience of flow may enhance emotional expression, self-reported levels of spirituality and psychological well-being.

Need for the Study

Greer (1999) underscored “the challenge for psycho-oncology and mind-body medicine is to develop effective, scientifically based psychotherapeutic methods that will make a significant contribution to patient care and become an integral part of clinical practice” (p. 242). Review of the literature indicated a relative absence of research studies that utilized experimentally controlled testing of individual creative art therapy as a treatment intervention for breast cancer patients.

Counseling interventions should be informed by sound theory and research (Greer, 1999). We believe a holistic, positive-focused, creative approach is ideal for counseling women with breast cancer struggling with physical, emotional, and psychological stressors and existential dilemmas resulting from the cancer diagnosis and its treatment. Clinicians attending to this population must also address the spiritual, social, and systemic variables affecting the women’s lives. Traditionally, counseling has been a ‘talking cure’ for people in distress. Creative art therapy may offer a nonverbal adjunct to the intentional exploration and expression of difficult emotions.

The efficacy of the complementary, mind-body intervention of creative art therapy on breast cancer patients’ experience of healing (Predeger, 1996), emotional expression (G. Aldridge, 1996; Cruze, 1998; Predeger, 1996), and psychological adaptation (Dibbell-Hope, 2000) has been studied; its efficacy on breast cancer patients’ emotional expression, spirituality, and psychological well-being had yet to be collectively examined.
Qualitative studies of breast cancer patients that received creative art therapy interventions reported the women describing the experiences as powerful, connecting, moving (Cruze, 1998; Predeger, 1996; Samuels & Lane, 2000), deeply spiritual (Samuels & Lane, 2000), and beneficial in several ways: facilitated active coping (G. Aldridge, 1996), emotional release (Cruze, 1998; Predeger, 1996), increased self-control (Cruze, 1998; Predeger, 1996), and enhanced psychological well-being and adjustment (Dibbell-Hope, 2000). The relationships among these constructs had yet to be explored using rigorous, experimental design and methodology.

**Purpose**

The purpose of this experimental study was to determine the efficacy of a complementary, mind-body creative art therapy intervention in enhancing emotional expression and self-reported levels of spirituality and psychological well-being in newly diagnosed, Stage I and Stage II breast cancer patients.

**Research Questions**

The following research questions were addressed in this study:

- Can creative art therapy help enhance newly diagnosed Stage I and Stage II breast cancer patients’ emotional expression?
- Can creative art therapy help enhance newly diagnosed Stage I and Stage II breast cancer patients’ self-reported levels of spirituality?
- Can creative art therapy help enhance newly diagnosed Stage I and Stage II breast cancer patients’ psychological well-being?

**Definition of Terms**

*Creative art therapy* is a psychotherapy modality wherein clients use various art media to explore expression of emotional and psychic material and help generate meaningful insights about their inner and outer life experiences.
Emotional expression is an individual’s functional, goal-oriented coping strategy that allows for the intentional, active processing and expression of emotions as measured by the Emotional Approach Coping Scale.

Flow is an autotelic, optimal state of consciousness marked by deep engagement and concentration in the present moment on whatever activity the individual is focused upon.

Holistic healing is an approach to healing that encompasses and attends to the individual’s body, mind, emotions, and spirit.

Positive psychology is a recently emergent humanistic psychology that emphasizes individual strengths and the belief in the human potential for growth and change and underscores the positive meanings inherent in the emotional, psychological, and spiritual challenges individuals face in everyday life.

Psychological well-being, for the purposes of this study, is defined as the absence of psychological distress in the forms of depression and anxiety as evidenced by subjects’ scores in the Profile of Mood States–Short Form.

Spirituality, for the purposes of this study, is defined as a commitment to choose, as the primary context for understanding and acting, one’s relatedness with all that is, as measured by the Expressions of Spirituality Inventory–Short Form.

Stage I breast cancer, for the purposes of this study, is defined as a tumor 0-2 centimeters (cm.), without lymph node involvement (no evidence of cancer cells in the lymph nodes), and without metastasis (Love, 2000).

Stage II breast cancer, for the purposes of this study, is defined as a tumor 0-2 cm., with positive lymph node involvement, and no metastasis; a tumor 2-5 cm. with or
without lymph node involvement, and without metastasis; or, a tumor larger than 5 cm., without lymph node involvement, and without metastasis (Love, 2000).

**Organization of the Study**

Relevant literature is reviewed in Chapter 2. All aspects of research methodology, including a statement of the purpose of the study, hypotheses, description of the population, description of the sample and sampling procedures, design of the study, delineation of relevant variables, instrumentation, data analysis, and methodological limitations are outlined in Chapter 3. The results of the statistical analyses of the data are reported in Chapter 4. The results of the analyses, the implications for theory and practice, the limitations of the study, and suggestions for future research are addressed in Chapter 5.
CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

The purpose of this chapter is to review existing literature related to the emotional expression, spirituality, and psychological well-being of breast cancer patients. Cancer research studies that have explored these constructs are discussed. Qualitative and quantitative studies that have utilized the complementary, mind-body intervention of creative art therapy on breast cancer patients are examined. Implications of findings of this review of the literature vis-à-vis future research conclude this chapter.

Creative art therapy is a psychotherapy modality wherein clients use various art media to explore expression of emotional and psychic material, to help generate meaningful insights about their inner and outer life experiences (Wadeson, 1980). Originally, art therapy was used as a diagnostic tool; however, engaging in art therapy exercises has been recognized as an autotelic experience for individuals in emotional or psychological distress (Spaniol, 1995). Patients of all ages, ethnicities and races may benefit from art therapy interventions delivered in individual, couples, family, and group psychotherapy formats. The production of aesthetic material has been described as “one of the most common of ways to divert ourselves from problems, to get relaxed and in touch with others [and] to express feelings” (Levick, 2001, p. 25). Art therapy techniques are numerous and varied (e.g., see Wadeson, 1980, pp. 334-336). Research that applied and studied these therapeutic interventions with cancer patients has included the use of
music, dance, painting, drawing, sculpting, journal, poetry or prose writing (e.g., see D. Aldridge, 1998; G. Aldridge, 1996; Haegglund, 1976; Pennebaker & Beall, 1986; Wadeson, 1980).

Our review of the literature revealed that research studies exploring the effects of creative art therapy on breast cancer patients are scarce (G. Aldridge, 1996; Cruze, 1998; Predeger, 1996). For purposes of this review, studies that utilized creative art therapy interventions with various types of cancer patients are included; studies that utilized creative art therapy interventions on breast cancer patients are reviewed in greater detail. In order to uncover creative art therapy outcome studies on cancer patient populations, the following databases were searched: CAM on PubMed, EBSCOHOST, MedLine and PsychInfo.

**Research on Cancer Patients and Emotional Expression**

The issue of health care professionals ignoring patients’ emotional reactions in the face of medical diagnoses that may have a deleterious effect on patient prognosis has been raised in the literature (Goleman, 1995). Goleman contended

The problem is when medical personnel ignore how patients are reacting emotionally, even while attending to their physical condition, [health care providers are] neglecting a growing body of evidence showing that people’s emotional states can play a sometimes significant role in their vulnerability to disease and the course of their recovery (p. 165).

Goleman went on to suggest that the medical profession as a whole is lacking in emotional intelligence, and underscored the importance of minding both the body and the emotions of individuals struggling with physical disease diagnoses. He reported evidence that suggests a relationship exists between physical symptoms and distressful emotions, such as chronic or acute anger (e.g., hostility), anxiety (e.g., panic), and sadness (e.g., depression).
Researchers have demonstrated a positive association between emotional expression and an individual’s health status (Pennebaker, 1989; Pennebaker & Beall, 1986). Lilja et al. (1998) reported cancer patient studies have demonstrated an association between emotional inhibition, including suppression and repression of aggression and anger, and incidence of cancer diagnoses. They specifically noted several studies have “found that patients with malignant tumors are more likely to suppress aggression than women with benign breast disease” (Greer & Morris, 1975; Morris, Greer, Pettingale, & Watson, 1981; Scherg, Cramer, & Blohmke, 1981; Watson, Pettingale, & Greer, 1984; Wirsching, Stierlin, Hoffman, Weber, & Wirsching, 1982, as cited in Lilja et al., 1998, p. 292).

Cancer research has extensively explored the role of emotional suppression, emotional processing, and emotional expression on a number of psychosocial and treatment outcome variables, for example, psychological adjustment (reported levels of distress and well-being) (Classen et al., 2001; Classen, Koopman, Angell, & Spiegel, 1996; Cohen, 2002; Compas et al., 1999; Helgeson et al., 2001; Payne et al., 1999; Spiegel, 1996; Spiegel et al., 1999; Stanton, Danoff-Burg, et al., 2000; Stanton et al., 2002; Watson, Greer, Rowden, Gorman, Robertson, Bliss et al. 1991), emotional self-efficacy (Giese-Davis et al., 2002), quality of life (Gore-Felton & Spiegel, 1999; Helgeson et al., 2001), incidence and recurrence of disease (Spiegel & Kato, 1996), and survival and mortality (Derogatis, Abeloff, & Melisaratos, 1979; Watson, Haviland, Greer, Davidson, & Bliss, 1999; Weihs, Enright, Simmens, & Reiss, 2000). The role of these personality factors on the etiology and incidence of disease diagnosis represents one of the most controversial aspects of cancer research (Cox & MacKay, 1982).
Emotional Expression and Cancer Incidence

The relationship between emotional suppression and incidence of breast cancer diagnosis has been researched and results indicated there is no significant association between a cancer outcome and emotional suppression when the patient’s age, a highly significant variable, is controlled for (O’Donnell, Fisher, Irvine, Rickard, & McConaghy, 2000). The authors added that although the “results suggest that suppression of emotion may not be relevant to the development of breast cancer . . . its role in the progression of existing disease requires clarification” (p. 1079).

In a retrospective study, Fernandez-Ballesteros et al. (1998) compared emotional expression (using Rationality/Emotional Defensiveness and Need for Harmony scales) of women with breast cancer with that of healthy women. The authors stated that women diagnosed with breast cancer “reported that they did not express emotions, and tried to get along in stressful social situations even when others hurt them or acted against their needs or desires” (p. 47). They added that the women with breast cancer were older on average than the healthy women and hypothesized their findings may be explained by differences in age between groups. The researchers emphasized they are not inferring a causal link between personality variables and cancer; however, concluded that “with a very high level of probability, [their] results show that emotional expression is a good predictor for discriminating healthy women from those with breast cancer” (p. 48). A similar study comparing healthy women (n = 49) with breast cancer patients (n = 48) yielded slightly different conclusions (Servaes et al., 1999).

Review of extant literature about the role personality factors (including emotional suppression and repression) on cancer etiology concluded that research to date has provided inconclusive evidence regarding the role of emotional suppression or repression
in a woman’s risk of developing breast cancer (Bleiker, van der Ploeg, Ader, van Daal, & Hendriks, 1995). Researchers are uncertain whether the tendency to suppress emotions, preexisting emotional or psychiatric disorders and psychological adjustment increase a woman’s risk of developing breast cancer or whether the actual breast cancer diagnosis affects a woman’s pattern of emotional expression, her emotional or psychiatric morbidity and her psychological adjustment. Research evidence also remains inconclusive about whether psychological factors such as a woman’s coping style and/or tendency to suppress negative emotions play a significant role in her breast cancer diagnosis, her response to treatment and/or long-term prognosis (Bleiker & van der Ploeg, 1999).

Stanton and Danoff-Burg (2002) have clearly cautioned against the potential for victim blaming associated with research about the role of personality factors (i.e., abnormal emotional expression associated with the Type C personality) on a cancer diagnosis. We reiterate our research study addressed the potential role of emotional expression in enhancing psychological well-being, not its hypothesized role on initiation or progression of the disease.

**Emotional Expression and Psychological Well-Being**

Research results on the relationship between emotional control, adjustment to cancer, and depression and anxiety in early stage breast cancer patients indicated a highly significant association between subjects’ tendency to control emotional reactions and a fatalistic attitude about the disease (Watson et al., 1991). Additionally, the authors discovered (with rather low but significant coefficients) “a predicted association between control of anger and helplessness [and] between control of anxiety and helplessness” (p. 55). Watson et al. concluded that their research confirmed a relationship exists
between the Type C personality trait of emotional control and a fatalistic attitude about cancer and, to a lesser extent, feelings of helplessness; adding that these variables were related to increased feelings of depression and anxiety, thus negatively affecting breast cancer patients’ psychological morbidity.

Psychological distress may take the form of a psychiatric diagnosis in up to 50% of cancer patients (Spiegel, 1996). Spiegel has researched the incidence of clinical depression in cancer patients and suggested that treatment options include, among others, interventions to facilitate emotional expression:

Cancer elicits strong affects, including fear, anxiety, sadness, depression, and anger. Such feelings become less overwhelming and more manageable when dealt with directly in therapy. Many seriously ill individuals feel isolated with their fear and sadness, unable to discuss it with health professionals, family or friends. Ironically, expression of such emotion seems to reduce rather than increase depressive symptoms. Patients often find that psychotherapy organizes their dysphoria by providing a time and place to deal with it effectively. (p. 111)

Spiegel emphasized that a growing body of evidence indicates psychiatric therapy for the physically ill is an essential and important aspect of health care delivery.

Servaes et al. (1999) also studied personality factors at play in this population and reported: “the image of the breast cancer patient as it emerges in the present study is that of a woman who has conflicting feelings about expressing her emotions, is reserved and anxious, is self-effacing, and represses aggression and impulsiveness” (p. 27). The ambivalence to express emotions, the authors contended, resulted from their conscious attempt to appear strong and avoid being burdensome to others. According to the researchers, the breast cancer patients chose to control their emotions, suggesting a conscious and deliberate act rather than a psychological defense mechanism beyond their control. Even though the cancer patients were more anxious than the healthy controls, there were no differences on depression, self-esteem, and well-being; a surprising find,
given the stressfulness of a cancer diagnosis. The authors hypothesized this may be part of the breast cancer patients’ attempt to appear in control of their situation and not show their real feelings to others. Servaes et al. concluded that the breast cancer patients’ display of “cancer-prone characteristics are a consequence of confronting a life-threatening disease rather than reflecting premorbid personality features” (p. 27).

Emotion-Focused Coping

Emotion-focused coping involves the active processing and expressing of emotions and is considered a significant coping strategy in breast cancer patients’ approach to diagnosis and treatment of the disease (Stanton et al., 2002). Stanton, Kirk, et al. (2000) researched the effects of emotion-focused coping, which involved purposeful emotional processing and expression, on psychological adjustment to cancer and reported that “women who expressed emotions surrounding cancer at study entry had fewer medical appointments for cancer-related morbidities (e.g., pain), enhanced self-perceived physical health and vigor, and decreased distress during the subsequent 3 months relative to less expressive women” (Stanton & Danoff-Burg, 2002, p. 34).

One study on a homogeneous sample of Israeli (Jewish) women reported that emotion-focused coping had a deleterious effect on emotional well-being and predicted higher levels of depression in patients with breast cancer recurrence (metastatic malignancy or local recurrence) (Cohen, 2002). Historically, groups of patients enrolled in randomized controlled trials tend to be relatively homogeneous in demographic composition (Richardson et al., 1998). Stanton and Danoff-Burg (2002) cautioned researchers to consider whether reported outcomes differ among cancer patients as a function of gender, race, and/or ethnicity.
Stanton and Danoff-Burg (2002) have also addressed the benefits of explicit experimental emotional expression through expressive writing on cancer patients. They conducted a randomized experimental expressive writing intervention on 60 women (mean age = 50 years; mean time since diagnosis duration = 28 weeks) diagnosed with Stage I and Stage II breast cancer (Stanton et al., 2002). Their goals were to (a) test the effects of expressive writing on psychological and physical health-related outcomes and (b) assess the effects of encouraging subjects to write about the positive aspects of their cancer diagnosis and experience. Subjects were randomly assigned to one of three writing conditions and completed four, 20-minute writing sessions within a 3-week period. Trained research assistants read instructions from prepared scripts. Writing conditions were as follows:

- The experimentally induced expressive disclosure group was instructed to write about their deepest thoughts and feelings related to the cancer experience.
- The control group subjects were instructed to write about facts of their cancer experience.
- The benefit-finding group was induced to write solely about the benefits (positive aspects) of the cancer experience.

Writing samples were transcribed and an independent judge reviewed the samples and assigned them to their respective writing conditions with a reported 95% accuracy.

The authors hypothesized that the groups induced to expressive disclosure about positive and negative aspects of cancer would experience positive effects on psychological well-being (defined as positive effects on quality of life and affect) and positive effects on overall physical health (defined as self-report of uncomfortable symptoms and number of medical appointments for cancer-related morbidities). The researchers also sought to explore whether the effect of the given writing conditions...
would vary “as a function of participants’ self-reported avoidance of cancer-related thoughts and feelings, reasoning that women low on avoidance might benefit more from emotional disclosure than would high-avoidant women, for whom induced emotional disclosure might be difficult” (Stanton & Danoff-Burg, 2002, p. 40).

The experimentally induced expressive disclosure group and the control group subjects reported significantly greater distress immediately after the written exercise ended than did the benefit-finding group. The authors indicated this type of finding is not uncommon in the expressive writing literature. Although described by the subjects as a painful and difficult process, most reported that ultimately, the exercise was insightful and helpful. The positive results of this experience did not hold for any group at 1-month and 3-month follow-up assessments. The authors reported that women who self-reported as low-avoidance experienced less distress than women in the high-avoidance category. The latter group benefited most from the benefit-finding writing condition.

An important finding of this study is that women do not have to write about painful thoughts and feelings in order to benefit from expressive writing. Subjects in the experimentally induced expressive disclosure group and the benefit-finding group had fewer medical appointments in the subsequent 3 months than did control group subjects. The experimentally induced expressive disclosure group experienced the greatest degree of benefit regarding overall physical health-related outcomes (less cancer-related medical appointments and less overall cancer-related physical symptoms). Regarding long-lasting positive effects, self-perceived enhanced understanding of their experience, and value of the study, subjects in the benefit-finding group reported a slightly greater benefit than those in the experimentally induced expressive disclosure group did. The researchers concluded that “although prompting greater immediate distress, expressing the full range
of thoughts and emotions surrounding cancer appeared to yield maximal benefit in this sample [and] the relative risks and benefits of various forms of expressive writing require further investigation” (p. 44). Stanton and Danoff-Burg (2002) concluded “both correlational and experimental evidence [reported thus far] provides preliminary support for the important role of emotional expression for individuals who confront a cancer diagnosis” (p. 45).

Stanton, Danoff-Burg, et al. (2000) have explored whether emotionally expressive coping predicts psychological and physical adjustment to breast cancer. The researchers studied Stage I and Stage II breast cancer patients (n = 92) with a mean age of 52 years (SD = 10.33; age range 28 to 76 years). The subjects completed several measures: a coping measure with the emotional-approach coping scales (emotional-processing and emotional-expression) embedded; a hope scale, a social receptivity scale; a psychological adjustment scale, the Profile of Mood States (POMS); a health status questionnaire, and written documentation of medical visits over time. These instruments were given to subjects 20 weeks after medical treatment was completed and again 3 months later.

The researchers reported divergent findings related to the two aspects of emotional-approach coping measured. Women who coped through emotional expression experienced better outcomes than those who used coping through emotional processing. Emotionally expressive coping was “associated with decreased distress, increased vigor, improved self-perceived health status, and fewer medical appointments for morbidities related to cancer and its treatment” (p. 84-85). Emotionally expressive coping improved the quality of life in women who felt their social support network was highly receptive to their expressiveness about the struggle with cancer. In contrast, women who utilized
emotional processing experienced increased distress. The authors hypothesized that the mental rumination component of emotional processing may play a role in this finding.

The researchers underscored the importance of context, citing the work of Pennebaker et al. (1997), which demonstrated positive results in the experimentally controlled use of written emotional disclosure processing. The researchers concluded: “training in coping skills designed to facilitate emotional expression may bolster adjustment and health status for women when confronting breast cancer” (p. 88). Finally, a result of this study labeled as ‘curious’ by the authors indicated that spiritual coping (coping through personal spirituality and/or religious beliefs/faith) and acceptance predicted positive psychological adjustment but more frequent medical visits. The latter was interpreted as a proactive measure by subjects to remain in control of their bodies and their management of the cancer experience.

**Research on Cancer Patients and Spirituality**

The importance of attending to the spiritual lives of breast cancer patients has been underscored in the literature (Kristeller et al., 1999; Mytko & Knight, 1999; Shapiro et al., 2001). Researchers have cautioned against ignoring the crucial role spirituality may play in a patient’s experience of healing and suggested multi-disciplinary, collaborative and holistic approaches to patient care and healthcare research (Carr & Morris, 1996; Carroll, 2001; Wirth, 1995). A number of conceptual articles have discussed and explored the role of healthcare providers in facilitating the emotional, physical, psychological, and spiritual healing of cancer patients. (Carr & Morris, 1996; Carroll, 2001; Cole & Pargament, 1999; Damianakis, 2001; Kristeller et al., 1999; Wirth, 1995).

A number of research studies have focused on the lived experience of spirituality (Chiu, 2000) and the role of spiritual well-being on the quality of life and psychological
adjustment of breast cancer patients (Brady et al., 1999; Cole & Pargament, 1999; Cotton et al., 1999; Feher & Maly, 1999; Gall & Cornblat, 2002; Gall et al., 2000; Mickley et al., 1992). Shapiro et al. (2001) contended that “spirituality may buffer against negative effects of life stressors” including the struggle with a breast cancer diagnosis (p. 506). Brady et al. (1999) argued for the inclusion of spirituality in quality of life measures and for the use of a biopsychosocial/spiritual model of cancer patient care.

Quasi-experimental and qualitative studies have been conducted on cancer patients’ experiences of religiosity (Feher & Maly, 1999) meaning making (Mickley et al., 1992) and hope (Mickley et al., 1992; Moadel et al., 1999). These studies involved the use of questionnaires, interviews, and self-report measures. All researchers reported findings indicating that spirituality played an instrumental role in the experience of coping with a cancer diagnosis. Moadel et al. cautioned that as many as 33% of cancer patients reported spiritual or existential needs were unmet in the course of conventional medical treatment.

Mickley et al. (1992) examined the roles of spiritual well-being, religiousness, and hope in spiritual health and indicated that physical health status is independent of spiritual health. This supports the notion that cancer patients may experience spiritual well-being even when facing a poor prognosis. Existential well-being, an aspect of spiritual well-being, was shown to contribute to patients’ experience of hope as did maintaining a social support network and the presence of religious beliefs in the subjects’ spiritual life. Feher and Maly (1999) conducted research on the role of religious faith in elderly cancer patients’ experiences of coping and found similar results pertaining to the roles of religious beliefs and social support network.
Spiritual well-being has been reported to contribute greatly to a cancer patient's quality of life (Thomson, 2000). Thomson’s study surveyed the lived experience of hospice palliative care for a group of patients over a six-month period of time. Spiritual well-being and subjective distress (Smith, Stefanek, Joseph, & Verdieck, 1993), and anxiety (Kaczorowski, 1989) have also been studied. Both Smith et al. and Kaczorowski found an inverse relationship between spiritual well-being and subjective distress and anxiety.

Brady et al. (1999) administered questionnaires to a large sample of multi-ethnic patients (n = 1610) diagnosed with HIV/AIDS or cancer to test their hypotheses: (a) quality of life and spiritual well-being are positively associated, (b) individuals reporting high levels of spiritual well-being will also report higher life enjoyment, and (c) there is a unique relationship between spiritual well-being and quality of life. The researchers found that both spirituality and physical well-being were equally associated with quality of life. They also stated that spirituality and quality of life were uniquely correlated; furthermore, individuals who reported high spirituality were able to enjoy their lives more.

Cole and Pargament (1999) developed a pilot psychotherapy program and named it: Re-Creating Your Life: During and After Cancer. The authors made a case for integration of spirituality in psychotherapy programs aimed at addressing existential dilemmas raised by a cancer diagnosis. The program addressed four existential concerns believed to affect cancer patients: control, identity, relationships, and meaning. The group intervention was developed within a holistic healing framework to assist cancer patients cope with their disease. They utilized an emotion-focused coping approach, believed to be more helpful than problem-focused coping for this patient group (Strentz
& Auerbach, 1988 as cited in Cole & Pargament, 1999). The authors concluded “a program that explicitly integrates spiritual resources into the psychotherapy process may hold considerable promise for this population [and] the benefits of such a program may even exceed those offered by traditional psychotherapy” (p. 405).

The role of spiritual factors on long-term adjustment to breast cancer has also been explored (Gall & Cornblat, 2002). The researchers asked a sample of 39 women, long-term breast cancer survivors, to write in their own words how spiritual and religious factors played a role in their understanding of and coping with the disease. Content analysis of transcripts was conducted and the following religious/spiritual themes emerged as significant contributing factors: relationship with God, social support, meaning, and life affirmation/growth. Relationship with God became a source of emotional support, faith in self, greater inner strength, and lessening of emotional distress. Talking to God through prayer served as a source of comfort and self-soothing that helped reduce anxiety, depression, and anger. Life affirmation and growth included a positive attitude, inner strength, inner peace, and connectedness to others. The authors stated that the concept of faith was a common thread interwoven among the religious and spiritual factors uncovered:

Faith represented a basic trust in the goodness and greater purpose in life. This trust grounded these women, providing them with a solid sense of purpose and place, [informing] most spiritual aspects of their adjustment such as their meaning-making around the cancer experience. (p. 533)

The authors acknowledged the limitations of a retrospective study based on one question answered by a relatively small sample and suggested that a longitudinal qualitative exploration begun at diagnosis would better capture the role of spiritual and religious factors in cancer patients’ long-term adjustment to the disease.
The role of religion on breast cancer survival has also received attention (Roud, 1989; Van Ness, Jones, & Kasl, 2001). Roud explored the spiritual dimensions of extraordinary survival of terminal cancer patients. He conducted in depth interviews (and domain/content analysis of transcripts) with individuals who, after terminal diagnoses of various types of cancers and beyond comprehension by their attending physicians, went into full remission from their disease. (In follow up check-ins, all but one of the participants (n = 8) were alive and well; five years after the initial interviews were conducted). The author discovered that these individuals assumed full responsibility for their disease and recovery from it, let go of fears, expectations, and worries, and developed a sense of spiritual connectedness and transcendence that brought them great comfort and improved their quality of life. One of the participants reported that music was a healing intervention for him, allowing him to let go of stress and increase the experience of relaxation. All reported that they consciously increased their expression of two key emotions: anger and love; finding this liberating. According to Roud, the healing process is a coming to terms with death through a personal choice to live fully; spiritual awareness greatly enhanced this process.

Van Ness et al. (2001) explored the following religious variables and their impact on survival: religious denomination, attendance to religious services, religious social network, religion as a source of comfort, and subjective religious identity. Denominational preference was the only variable that yielded statistically significant results with the Pentecostal denomination showing a possible protective effect when compared with the Protestant reference group. The authors concluded that nonreligious subjects were at increased risk and traditional faith-healing groups showed the greatest protective effect.
Thomas and Retsas (1998) designed a qualitative, grounded theory study to explore the spiritual dimensions of people making sense of and coming to terms with a terminal cancer diagnosis. They were interested in the meanings that these individuals ascribe to everyday experiences of life with the disease. They found that cancer patients “transact self-preservation” in three phases: “taking it all in, getting on with things, and, putting it all together” [and viewed spirituality as] “an inherent aspect of the individual self incorporating a source of strength developed through a person’s faith in self, others, God and/or another Higher Being” (p. 191). The spiritual dimensions of patients’ experiences evolved, as they moved from transaction to transaction, as follows: taking it all in (responding to the crisis and questioning ‘why?’); getting on with things (mobilizing resources and connecting spiritually and emotionally with self and others); and putting it all together (creating meaning out of the experience of life with the disease and discovering self in new ways). Becoming spiritual, transcending self, and expanding consciousness were all important aspects of managing the diagnosis in healthy ways. The authors called upon nurses and other health care practitioners to help instill a sense of hope and positive expectation in patients; they underscored that in order to accomplish this task, health care providers must be in touch with their own sense of spiritual connectedness.

Many of the studies discussed here emphasized the need for further research exploring useful interventions to assist diverse groups of patients manage the physical, emotional, and spiritual challenges that cancer brings into their lives. They underscored the fact that spirituality was a crucial variable in cancer patients’ lives and must not be overlooked or ignored in the process of health care service delivery. Literature reviews pertaining to religiosity and spirituality, and their relationship to cancer patients’ mental,
emotional, and physical health, and quality of life have been conducted (Mytko & Knight, 1992; Sherman & Simonton, 2001).

Mytko and Knight concluded more studies are needed to further explore the role of spirituality in relation to psychological adjustment (well-being and distress) and quality of life of cancer patients, in order to enhance our understanding of the integration of body, mind, and spirit in future research and treatment of this population. Sherman and Simonton’s findings concurred; in summary

General religious orientation and cancer-related religious coping have both been modestly associated with various dimensions of quality of life, including emotional distress, life satisfaction, social functioning and sometimes, physical symptoms. Spiritual well-being has also been tied to several important aspects of quality of life (p. 185).

Sherman and Simonton concluded that the data gathered to date suggests that spirituality and religiousness are tied to significant health outcomes for cancer patients and the psycho-oncology research community has only just begun tracing these connections.

**Research on Cancer Patients and Psychological Well-being**

Psychological adjustment to cancer is indicated by levels of psychological (mental and emotional) distress and well-being that patients experience as they face disease diagnosis and treatment choices (Stanton et al., 1998). A diagnosis of cancer has been described as a “jarring, life-altering experience for most patients and their families [with] taxing treatments, disrupted functioning, and uncertainty about survival among the burdens they face” (Sherman & Simonton, 2001, p. 167). Approximately 20% to 30% of breast cancer patients report experiencing severe psychological distress a year after initial diagnosis (Irvine, Brown, Crooks, Roberts, & Browne, 1991). Cancer patients’ needs, psychological distress and levels of adjustment fluctuate over the course of the disease (Andersen, 1992). Levels of distress are greatest at the initial diagnosis and treatment
decision-making period and almost half of early stage cancer patients (including those with relatively good prognosis) have been found at risk for moderate to severe psychological distress (Bleiker, Pouwer, van der Ploeg, Leer, & Ader, 2000).

The research literature has documented a number of negative psychological consequences of a cancer diagnosis, including clinical depression and anxiety (Bleiker et al., 1995; Payne et al., 1999; Razavi & Steifel, 1999; Spiegel, 1996). Breast cancer patients also struggle with performing daily physical, occupational and/or social activities with a considerable number (20-46%) suffering from moderate to severe emotional morbidity (van der Pompe et al., 1996). Spiegel (1996) reported even though about 50% of all cancer patients have a psychiatric disorder (e.g., adjustment disorder with depression) “comorbidity of psychiatric with medical illness is a common and under-recognised problem; [emphasizing that effective treatment of depressive symptoms] results in better patient adjustment, reduced symptoms, reduced costs of care, and may influence disease course” (p. 109). Antoni et al. (2001), on the other hand, cited several studies that researched and reported positive consequences of a cancer diagnosis. The authors contended:

Although diagnosis and treatment for cancer are distressing and disruptive, there is an increasing awareness in both research and clinical communities that the cancer experience often has sequelae that patients view as positive or beneficial. A substantial number of patients report experiences such as improvement in personal resources and skills, an enhanced sense of purpose, enhanced spirituality, closer relationships with significant others and changes in life priorities. (p. 21)

These findings emphasize the diversity of adjustment responses that may be found across this population.

The types of concerns affecting breast cancer patients also vary with disease stage diagnosis; early stage patients worry about recurrence, post-operative distress, and/or
chemotherapy, which may affect body image, femininity, sexuality, and fertility (in women of child-bearing age) and metastatic breast cancer patients struggle with existential issues such as fear of death and dying, pain, concern for family members they may leave behind, and the knowledge that their life will be shortened by the disease (van der Pompe et al., 1996). Razavi and Steifel (1999) also underscored that the type of cancer, type of treatment, course of illness, “the patient’s personality, gender, and age; and the quality of social support are all factors that should be taken into account” when performing cancer research exploring the efficacy of psychological interventions (p. 364).

Extensive critical reviews of the literature have been conducted about psychological interventions on cancer patients, in general (Andersen, 1992, 2002) and breast cancer patients, specifically (Glanz & Lerman, 1992; Tapper, 1999). Problems of conceptualization and confounding have been addressed in psycho-oncology research (Stanton et al., 1994). A common admonishment underscored the need for careful scrutiny and interpretation of the highly heterogeneous sets of extant data from research done on multiple types of cancer, cancer stages, demographic variables, and psychological interventions (Andersen, 2002; Tapper, 1999).

Our review of the literature yielded multiple studies pertaining to outcomes of psychological interventions on breast cancer patients’ emotional expression and psychological adjustment, including psychological distress and well-being; recall these studies have utilized interventions as follows: individual therapy (Lev & Owen, 2000; MacCormack et al., 2001), supportive psycho-educational group therapy (Edmonds et al., 1999; Fukui et al., 2001; Greenstein & Breitbart, 2000; Helgeson et al., 1999, 2001; Montazeri et al., 2000), supportive cognitive-behavioral group therapy (Antoni et al.,
2001; Bloch & Kissane, 2000; Cunningham et al., 1998; Edelman et al., 1999; Kissane et al., 1997; Watson et al., 1996), and mixed modalities (including psycho-education, stress management, guided imagery and/or hypnosis) group therapy (Spiegel & Moore, 1997; Fawzy et al., 1990; Fukui et al., 2001; Hosaka et al., 2000; Richardson et al., 1997; Simpson et al., 2001; Spiegel & Bloom, 1983; Spiegel et al., 1989).

A number of research studies have explored the efficacy of supportive expressive group therapy on cancer patients’ emotional expression (Giese-Davis et al., 2002), psychological adjustment (Classen et al. 1996), distress (Classen et al., 2001; Spiegel et al., 1999), and survival (Goodwin et al., 2001). It should be noted that supportive expressive group therapy does not usually incorporate art media in its interventions; the disciplines of expressive arts therapy and creative arts therapy most commonly do (Malchiodi, 2003).

Supportive expressive group therapy specifically geared toward emotion-focused coping has been shown to help women with metastasized breast disease to express their emotions more openly and freely without becoming hostile (Giese-Davis et al., 2002). Classen et al. (1996) reported emotional expressiveness and adoption of a fighting spirit approach to coping (Friedman, Nelson, Baer, & Lane, 1990) were associated with better psychological adjustment. Supportive expressive group therapy that emphasized provision of support and helping subjects manage the stress caused by the cancer and its treatment was found useful in reducing psychological distress in women with metastasized disease (Classen et al., 2001).

Spiegel et al. (1999) also researched breast cancer patients receiving supportive-expressive group therapy and reported a significant decrease in mood disturbance, a decrease in anxiety and depression, and reduced overall distress in the treatment group.
Goodwin et al. (2001) reported that participation in supportive expressive group therapy by women with metastasized breast cancer did not prolong survival in the treatment group; however, it helped to improve mood and perception of pain, “particularly in women who [were] initially more distressed” (p. 1719). Finally, a review of the literature on the overall efficacy of supportive-expressive group psychotherapy, including emotion-focused interventions, concluded that overall results suggested these support groups helped enhance psychological, social and physiological well-being of breast cancer patients (Gore-Felton & Spiegel, 1999).

**Research on Creative Art Therapy and Cancer**

An increasing number of oncology patients receiving medical treatment for a wide range of cancers have opted to participate in art therapy experiences to help them cope with the physical, emotional and mental stressors that such a diagnosis brings (Lane & Graham-Pole, 1994). According to Malchiodi (2003) “some practitioners see art therapy as part of a larger discipline referred to as expressive arts therapy (the therapeutic use of art, music, dance/movement, music, drama and poetry/writing) and intermodal or multimodal (moving from one art form to another) approaches” (p. 106). Creative arts therapy and expressive arts therapy may be aimed at enhancing emotional expression, spiritual connectedness, and psychological well-being of cancer patients.

Research exploring the efficacy creative art therapy on cancer patients has primarily focused on qualitative methods (D. Aldridge, 1998; Davis, 2000; Dreifuss-Kattan, 1990; Haegglund, 1976; West, 1995). These researchers have addressed how engagement in the creative arts can be a healing experience for individuals suffering from various challenging and life-threatening illnesses, including cancer.
D. Aldridge (1998) explored *Life as Jazz*, a metaphor for bringing hope and meaning to individuals facing life-threatening illness. According to the author, creative musical improvisation can enhance an individual’s ability to tap into inner sources of strength and resilience. His study focused on multiple patients dealing with a wide variety of medical diagnoses, including breast cancer. The author concluded that music enhanced his client’s lived experience of spirituality and fostered a sense of hope while facing disease. Music therapy has emerged as a distinct discipline from art therapy; however, it was included herein to demonstrate the increased use of creative therapies in cancer patient treatment and research.

Davis (2000) developed a book that offers cancer patients a structured writing intervention to guide the emotional expression of thoughts and feelings as they come to terms with and learn to cope with their disease. Dreifuss-Kattan (1990) provided psychooncological and psychoanalytical overviews of subjects’ experience of cancer and reported that multimodal creative art therapy helped enhance their emotional and psychological well-being.

Haegglund (1976) conducted a psychoanalytic study addressing the relationship between creativity, the death and dying experience, and attitudes of cancer patients. The author contended that poetry writing may appease and help soothe the pain of loss and mourning often associated with a cancer diagnosis. Haegglund conducted a literature review and its findings supported his original hypothesis (that a relationship among these constructs does exist). The author illustrated his point by presenting five cases studies of individuals suffering from cancer who used poetry writing as a way to face feelings of fear, sadness, guilt, anxiety, and pain. The therapist’s role as a helper in the patients’
transition into death was also explored. The author concluded that poetry writing, per patients’ self-report, was a healing experience.

West (1995) conducted a case study of a 77-year-old female patient diagnosed with terminal cancer. She discussed the role music therapy played in the subject’s experience of anticipatory grief as she began to die from the disease. The author examined the beneficial outcomes of music therapy and concluded that it can serve to enhance an individual’s quality of life and level of comfort in the dying process.

Three studies reviewed explored the use of personal journal writing, including the crafting of poetry and prose, as a way of documenting the emotional and psychological experience of living and dying with cancer (Philip, 1995; Smith, 1995; Wyatt-Brown, 1995). They revolved around Claire Philip, a social worker who struggled with and ultimately died from cancer, seven years after initial diagnosis. Philip (the cancer patient) chose to document her emotional and psychological process of grief through journal entries that included poetry, prose, and reflections on creativity, spirituality, and connectedness. These were published in scholarly journals in her field. She emphasized the importance and value of being able to express thoughts and feelings to herself (through writing) or to others (through conversation). Philip equated this form of expression with the creative flow itself and experienced it as a connecting with and transforming of the self.

Smith (1995) and Wyatt-Brown (1995) examined Philip’s writings from two divergent perspectives. Smith hypothesized that Philip’s poetry was another form of revealing thoughts and feelings that may not be clear to the therapist in session but manifest openly on the page. She saw Philip’s poetry as a process of coming to terms
with the loss of identity, the loss of loved ones, and the meaning of death and dying itself.

Wyatt-Brown approached Philip’s work as an exploration of the themes of creativity and professional identity. She conceptualized Philip’s writing and self-disclosure process as a way of coming to terms and wrestling with the experience of dying. (Philip moved from secrecy the first 3 years after diagnosis to broad self-disclosure via journal publications the last year of her life). Wyatt-Brown suggested this choice to write and express her thoughts and feelings in a public professional forum was an emotionally healing experience for Philip.

One study explored the roles of spirituality and creative art therapy in mental health care practice (Greenstein & Breitbart, 2000). Greenstein and Breitbart proposed a group intervention to help cancer patients address the challenges that their disease brings. They developed sessions focusing on aspects of meaning, including a sense of transcendence, spirituality, responsibility, values, priorities, and personal creativity. The group intervention incorporated aspects of the creative arts by exposing patients to instances of meaning, which can be found through the appreciation of beauty in nature or works of art. According to the authors: “whether pursuing creative goals and experiential values or reframing one’s attitude, [individuals] may attain a sense of meaning in part through transcendence” (p. 497), a spiritual experience of connectedness with others or with a universal, larger whole beyond ourselves. In their qualitative explorations of spirituality and creativity in healing, the authors concluded that creative art therapy enhanced patients’ ability to openly express painful emotions, including the experience of grief, and to explore the existential, spiritual dilemmas of meaning and connectedness raised by facing death through their life-threatening illness.
Our review of the literature uncovered no experimental studies that explored the efficacy of creative art therapy interventions on breast cancer patients’ self-reported levels of spirituality or the role of spirituality on breast cancer patients’ psychological well-being and/or adjustment to the disease. As previously stated, this area of inquiry remains unexplored. Our study investigated the efficacy of art therapy on these constructs utilizing a quantitative research methodology.

**Research on Creative Art therapy and Breast Cancer**

A very small number of qualitative studies have examined the benefits of creative art therapy on breast cancer patients (G. Aldridge, 1996; Cruze, 1998; Predeger, 1996). We found one mixed (qualitative and quantitative) study on the subject (Dibbell-Hope, 2000).

G. Aldridge (1996) conducted a case study of a 35-year-old female patient diagnosed with breast cancer. The participant began a music therapy experience after undergoing radical mastectomy of one breast. The therapy was geared to provide a vehicle for melodic expression and a forum to reflect upon the emotional experience of managing her disease. The author defined creative music therapy as “an approach that actively pulls the client into the process of performing music—the therapeutic gestalt—[and] exerts an influence on the abilities of the patient to express herself” (p. 213). G. Aldridge explored the melodic flow of the subject’s improvisations and interpreted them as therapeutic experiences of emotional expressivity and as reflection of the subject’s emotional healing process. The author contended that spontaneous musical improvisation assisted his client to access her creative power, a potential source of strength, hope, coherence, and meaning she could draw from. He concluded “active, creative music therapy is an intervention that offers a chance for patients to use their own
creativity and creative strength to cope with their crisis and maintain coherence through their illness... within a culturally accepted form” (p. 221-222).

Cruze (1998) provided a case study of the breast cancer experience by reporting a subjective, personal account of her struggle with the disease and the healing she experienced through a collaborative creative process. Cruze, a physician, was diagnosed with breast cancer in 1991 and underwent a mastectomy and chemotherapy treatments. Four years prior to her diagnosis she had attended a presentation by sculptor Christiane Corbat, who helps cancer survivors make plaster sculptures of their torsos after mastectomies. These artistic pieces, named the Amazon torsos, tour the United States and serve as symbolic representations of the women’s stories of tragedy and triumph. Cruze and Corbat met and discussed this artistic process after Cruze had finished her cancer treatment. The author was surprised to hear Corbat indicate that she had a hard time finding women who could bring out the positive aspects of their cancer experience. Cruze reported she also felt unable to see anything positive in her struggle. After this exchange, Cruze realized that her future happiness and well-being depended upon her ability to view the experience with breast cancer and surgery in a positive light. Cruze decided to have Corbat complete a sculpture of her torso. She described her experience thus:

The plaster cast made me think that I was broken and being reset in order to heal. My plaster exoskeleton became a warm chrysalis and my soft bug bits solidified as my pupa matured to imago. As I wriggled out of my hard shell I remembered having watched a monarch butterfly pump its moist crumpled wings out full and shapely and dry. I mimicked the movement and made as if to take flight. I felt transformed! (p. 402)

Corbat completed a sculpture of Cruze’s plaster torso and named it Night Light. The piece travels from time to time, to conferences and galleries. Cruze reported that the changes she experienced after completing the sculpture amazed her: an increased sense
of happiness and optimism and, ultimately, gaining the ability to reframe her cancer experience. Cruze concluded that looking at the sculpture makes her feel “triumphant, victorious over [her] disease for the first time” (p. 402).

Predeger (1996) conducted qualitative research using the feminist process method, a feminist esthetic cooperative inquiry, described as purposeful authentic collaboration and shared meaning that allows the power of collectivity to emerge. Predeger and her co-researchers named this process Womanspirit: A journey into healing through art in breast cancer. A convenience sample of 18 women (ages 39 to 70) from diverse backgrounds and representing various disease stages, participated in this research for a 6-month period. The women used artistic expression in the form of painting, photography, collage, and writing. Collaborative reflection among the coresearchers was central to the feminist esthetic framing the study. The study’s method is described as evolving within a group session format that “followed a deliberate structure of centering, art experience, reflection, and action” (p. 51). The centering part of the group session began with a check-in, or an opening-up, where participants became present to each other. A question was then posed to encourage centering and reflection. The women proceeded to choose a favorite art medium and to utilize the creative process as vehicle for describing the breast cancer experience. Sharing among group members took the form of synthesizing and interpreting the observation of images. Analysis of emergent themes ended each session. In order to secure data, each session was audio taped and transcribed; transcripts were discussed and analyzed collectively during later sessions. Additional data sources came from participants’ reflections about their art, researchers’ field notes, and surrounding conversations among the women. According to Predeger, the generation of themes became a recursive process. Meaning making was described as a dialectic
process where emergent themes were discussed and would be revisited in subsequent sessions, thus deepening the coanalysis of the experience. Leadership, group direction, individual and group insights occurred throughout the research process.

The guiding research questions were (a) what is the meaning of healing through the expressive arts for women living with breast cancer and (b) what are the processes and outcomes of women cocreating personal and collective knowing? Predeger (1996) chose a holistic nursing paradigm to guide the inquiry. This paradigm affirms multiple ways of knowing and multiple healing perspectives. The author chose a participative worldview lens whereby the lived experience of the women’s reflections of healing through art and group work could be viewed. Predeger described her research methodology as “open, reflective, dialogic and engaging whatever methods best meet the aims of the study” (p. 50).

The following themes on personal and collective healing emerged:

- Actualizing the need to express
- Losing and gaining control
- Illuminating a changing perspective
- Transcending and becoming braver
- Connecting with sisters
- Creating a safe harbor
- Fueling the creative spark
- Celebrating the feminine
- Womanspirit.

**Actualizing the need to express** refers to the women’s contention that being able to express their feelings and thoughts through art was viewed as timely and opportune. The ability to express became more important than the media used or the final product itself. The sharing deepened as the group sessions progressed.

**Losing and gaining control** emerged as the women’s struggle to allow themselves to open up and fully express difficult emotions (lose control) in order to
regain control. This paradoxical process of surrender and empowerment also deepened, and became easier with time.

Illuminating a changing perspective refers to their reframing of the breast cancer experience. Art is described as a pathway toward healing and meaning making that transcended prior interpretations of the struggle with the disease. The women were able to focus on the goodness in their lives rather than the negative aspects of struggling with cancer.

Transcending and becoming braver refers to the wish to move beyond their own struggle and reach out to assist others facing the disease. Becoming proactive emerged as an important aspect of healing for the women; this took the form of political involvement, expressing thoughts and feelings assertively, or reframing themselves from victims to survivors.

Connecting with sisters refers to the collective engagement in feminist research and embracing an ideology that promotes support and encouragement of women. The experience of sisterhood provided companionship and warmth that reduced feelings of alienation or loneliness.

Creating a safe harbor refers to the women's framing their art-making process as a place of rest and replenishing. The time spent together provided needed relief from everyday worries.

Fueling the creative spark refers to the power of the collective to inspire the women to explore their thoughts and feelings through the creative process. Some of the women reported a reawakening of their creative selves they had long neglected.

Celebrating the feminine refers to the experience of making art within a feminist framework as affirming of the creative power and the feminine within each participant. Finally, the concept of Womanspirit emerged as a particularly powerful theme:
Womanspirit underlies the spirit of women reaching out and bravely transcending their own boundaries in their quest for healing; [it] captures the process of knowledge cocreated from experience, exploration, expression, and empowerment of the women realized within the collective methodology. . . . Women, connected in spirit, are finding their own way. (p. 57)

Predeger (1996) concluded that the voices of personal and collective healing, as experienced by the women through their artistic creative process, must be heard; health care practitioners and researchers “would benefit by collaborating with women in a nonhierarchical participative model where dialogue of experiences and possibilities are uncovered” (p. 57).

Dibbell-Hope (2000) explored the use of dance/movement therapy in the psychological adaptation to breast cancer. The study was an attempt to address the lack of systematic, quantitative, controlled approaches to clinical therapy research. Authentic Movement was chosen as the clinical intervention and is described as a therapeutic process based on the Jungian concept of active imagination. The dancer is encouraged to move at her own pace, in her own time, within her physical limitations and is always in control of the process. The dancer is also encouraged to attend to her inner experience by closing her eyes and listening to her body, learning to trust herself, and opening up to others’ witnessing of her process. This therapeutic dance “may facilitate healing from the emotional effects of breast cancer by reinforcing a sense of internal trust . . . and by encouraging active participation in the healing process, which can lead to a better medical prognosis and improved quality of life” (p. 53). The ultimate goal of this approach is to help the dancing client develop awareness of, give form to (through improvised dancing), and integrate conscious and unconscious material; her feelings about her body and her self.
The research questions were (a) can an Authentic Movement group help women with breast cancer increase their level of psychological adaptation to the disease and its treatment and (b) can that increase be sustained over time? Research hypotheses were

(1a) Participation in an Authentic Movement treatment group will improve psychological adaptation of women with breast cancer significantly more than waiting for treatment.

(1b) Improvement will be sustained over time.

(2) Women who show the most improvement will be older, have had earlier stage (I or II) cancer diagnosis, less invasive medical treatment, more time elapsed since the end of treatment, and more past experience with physical activities (i.e., sports or dance).

Inclusion criteria were as follows:

- Diagnosed with Stage I or Stage II breast cancer.
- Treatment completed 6 to 60 months prior to the study.
- No prior breast cancer diagnosis.
- No active psychiatric symptoms (i.e., hallucinations, delusions, severe psychiatric morbidity).
- No history of inpatient psychiatric treatment.

The treatment consisted of 3 hours of Authentic Dance sessions held weekly over a 6-week period. The group therapists were reported to be well-known, experienced, Authentic Dance professionals who taught and published on the subject widely.

Participants were recruited via letters, with assistance from the San Francisco Bay Area’s Alameda County American Cancer Society. Interested respondents were contacted by phone, after inclusion criteria were verified a face-to-face was interview scheduled.

During the first in-person interview, pretreatment qualitative data was gathered regarding the subject’s personal experiences with cancer diagnosis and treatment, including how it affected her feelings about her body or her self. A paper-and-pencil packet of questionnaires was administered to measure pretreatment levels of psychological adaptation as evidenced by mood scores in the Profile of Mood States (POMS), psychological distress scores in the Symptom Check List 90-Revised (SCL-90R), body
image and self esteem scores in the Borscht-Walker-Bohrnstedt Body Image Scale (BWB).

After the interviews and questionnaires were completed, the women were separated by geographical area: from the Northern Bay Area (Group 1: where the population was characterized as urban, sophisticated, and heterogeneous) and the Southern Bay Area (Group 2: where the population was characterized as suburban, conservative, and homogeneous) and randomly assigned to a treatment or control group of 10 to 12 women each.

The treatment subjects were 33 women (ages 35 to 80; mean age = 54.7. Therapy sessions were held at two area churches. Control group subjects were told they would be contacted in 6 weeks to begin treatment. After the 6-week treatment period, both groups were assessed for psychological adjustment using the same instruments described in pretreatment measures. Qualitative data (post-treatment clinical interviews) was also gathered from the treatment group subjects. Quantitative data from experimental and control groups was compared to determine treatment effect. Qualitative data were used to compare objective and subjective aspects of subjects’ experiences of psychological adaptation. Three weeks post-treatment, both control and treatment group subjects were again assessed for psychological adaptation using the same instrumentation as before. The third testing was conducted to offset the possibility of halo effect from the end of the treatment and to determine whether obtained benefits remained over time. Comparisons of psychological adaptation were made between control and treatment groups at pretreatment, post-treatment, and delayed post-treatment. After delayed post-treatment, members of the treatment group completed a written evaluation to rate (on a Likert-type scale) degree of change experienced and strengths and weaknesses of the dance therapy experience. They also gave suggestions for future improvements.
Dibbell-Hope reported that only the control group subjects from the Northern San Francisco Bay area accepted the delayed treatment; adding that subjects from the Southern group were no longer interested and had met their psychological and emotional needs through other support groups. For hypothesis 1a, Analyses of Co-Variance (ANCOVAs) were used to compare effectiveness of treatment against no treatment. Repeated measures Analyses of Variance (ANOVAs) were used to measure changes over time, at post-treatment and delayed treatment. In order to measure within group changes over time for both treatment and control groups paired t-tests were used.

The treatment groups showed significant improvement over control groups in Vigor, Fatigue and Somatization ($p < .05$) when post-treatment scores were compared with post-wait scores of the control groups. Significant regional differences appeared in the results: the Northern group showed lower level of psychological adaptation after treatment than did the Southern group. The Southern group reported overall better improvement than the Northern group whether in the treatment or control groups. The Northern group reported higher levels of Fatigue and Total Mood Disorder in the POMS ($p < .05$) than did the Southern treatment group. The Northern group also had higher distress levels on the SCL-90R ($p < .001$) and greater dissatisfaction with body image in the BWB ($p < .05$) than did the Southern treatment group. The Northern control group also showed higher overall mood disturbance, distress, and dissatisfaction with body image. The Southern treatment group reported statistically higher levels of body image ($p < .05$) than did the Southern control group. Statistical testing of interaction of treatment by region was done and no significant interaction effect was found.

Dibbell-Hope concluded that Hypothesis 1a was generally unsupported. ANOVA was calculated at post-treatment and delayed treatment times to assess whether treatment effects were sustained over time. Between-groups analysis indicated that the significant
improvement in Fatigue, Vigor and Somatization was not sustained over time. Hypothesis 1b was not supported. The Authentic Movement therapy group showed minimal improvement when compared to the control group and the improvement was not sustained over time. The author noted that the areas where small improvement was reported related to the physical body (Fatigue, Vigor and Somatization) and hypothesized that Authentic Movement might have contributed to a sense of physical well-being in the women.

Hypothesis 2 was tested through a step-wise multiple regression procedure to see if the demographic factors selected (age, stage of cancer, type of treatment, time since treatment, and experience in sports and dance) may predict level of psychological adaptation. The stage of breast cancer was the most frequent predictor of mood and distress. Age was the most significant predictor of satisfaction with body image and self-esteem. Hypothesis 2 was largely supported.

Qualitative data from the interviews and written evaluation were analyzed within a phenomenological framework “in order to capture the nature of each woman’s individual experience, to point out any common elements or themes and to summarize descriptively and succinctly the essence of the experience” (p. 62). Most women, according to the author, reported that the Authentic Movement dance therapy experience was positive and healing, assisting them to resolve issues related to their breast cancer struggle, especially disturbances in mood, negative feelings about their bodies, and social isolation. The author acknowledged that subjectively perceived improvement in distress, mood, self-esteem, and body image after the therapeutic dance experience cannot be interpreted as a direct causal relationship since she made no attempt to correlate or track individual changes from entry to exit interviews or to correlate subjective and objective
data. She concluded that further qualitative (phenomenological) and quantitative research is needed in this area.

Dibbell-Hope reported considerable differences were found between quantitative and qualitative data collected. While the quantitative data showed a few changes in mood and distress, none were shown in self-esteem and body image. On the other hand, qualitative data indicated noticeable improvements in self-esteem and body image while improvements in distress and mood were minimal. She believes instrumentation and response bias may be responsible for the discrepancy between objective and subjective results. Dibbell-Hope suggested that future research include correlations between objective and subjective measures of change.

Methodological limitations were acknowledged: demographics, treatment duration, variations in leadership styles, sample size, and group composition may have all affected the outcome of this study. A noteworthy qualitative finding came through the subjects’ written evaluations and recommendations. Dibbell-Hope reported the women wished the treatment were offered at diagnosis time, during or immediately after treatment when distress is highest and the benefits may be greater and recommended that future therapy interventions incorporate other types of expressive arts therapies, i.e., art, music, and drama.

In the diverse explorations about the efficacy of art therapy interventions on cancer patients, the majority of research reviewed herein reported qualitative evidence that art therapy interventions may assist patients to openly express painful emotions, explore the existential spiritual dilemmas raised by their struggle with the disease and by facing their own mortality, and enhance overall psychological well-being. Controlled, randomized quantitative studies examining these constructs have been called for and are clearly needed.
Conclusion

Lerner and Remen (1987) have reported their personal experiences in a residential treatment program for cancer patients. Their holistic approach incorporated yoga, meditation, health education, and support groups. The authors contended that complementary therapies, including art therapy are beneficial to psychological and physical recovery from various types of cancer. Engagement in these interventions, by patients’ self-report, helped decrease their feelings of fear, sadness, distress, and isolation, and provided an increased sense of personal control. The multimodal art therapy approach to treatment proposed in this research study provided creative techniques “through which individuals [may] express thoughts and feelings, communicate nonverbally, achieve insight, and experience the curative potential of the creative process” (Malchiodi, 2003, p. 117).

Review of extant literature indicated a relative absence of rigorously controlled experimental studies focusing on the efficacy of structured, creative art therapy interventions, delivered in individual sessions, on breast cancer patients’ emotional expression, self-reported levels of spirituality, and psychological well-being. Qualitative findings reported in this literature review appear promising and have shown psychological benefits associated with engagement in creative arts therapy. Research studies about the efficacy of art therapy on patients with various types of cancer have included music therapy (D. Aldridge, 1998; West, 1995), structured and unstructured journal writing, including poetry and prose (Davis, 2000; Haegglund, 1976; Philip, 1995; Smith, 1995; Wyatt-Brown, 1995), art appreciation (Greenstein & Breitbart, 2000), and multimodal art therapy (Dreifus-Kattan, 1990). Research studies about the efficacy of art therapy on breast cancer patients have included music therapy (G. Aldridge, 1996).
collaborative sculpting (Cruze, 1998), multimodal art therapy (Predeger, 1996), and dance therapy (Dibbell-Hope, 2000).

Dibbell-Hope’s (2000) study about the efficacy of dance therapy on the psychological adjustment of breast cancer patients was the only one to use both quantitative and qualitative measures. No treatment effect was found for post-treatment or delayed treatment variables measured quantitatively. Subjective assessments, however, showed post-treatment benefits, as have the other qualitative studies reviewed here (G. Aldridge, 1996; Cruze, 1998; Predeger, 1996).

A number of studies found, which examined the efficacy of experimentally induced expressive writing, music therapy or creative art therapy, reported positive findings (e.g., enhanced emotional expression and psychological well-being) that were also described (by the authors and/or the subjects) in spiritual language and overtones (e.g., D. Aldridge, 1998; Philip, 1995; Predeger, 1996; Stanton & Danoff-Burg, 2002). Although not directly exploring spiritual or religious factors, these studies suggest that cancer patients’ experiences of psychological and/or emotional healing may be subjectively appraised as spiritual ones; thus underscoring the value of a holistic approach to health care practices and research.

Clearly a diagnosis of breast cancer presents great challenges to a woman’s body, mind, emotions, and spirit. Creative art therapy may prove a viable and beneficial intervention to assist women in facing this life-threatening challenge. The pretest/posttest control group design experiment described herein examined the efficacy of the complementary, mind-body intervention of creative art therapy on breast cancer patients’ emotional expression, self-reported levels of spirituality, and psychological well-being.
CHAPTER 3
METHODOLOGY

Statement of Purpose

The psycho-oncology literature contains a number of qualitative studies focused on the efficacy of creative art therapy interventions on emotional expression (G. Aldridge, 1996; Cruze, 1998; Predeger, 1996), spirituality (Chiu, 2000), spiritual well-being (Brady et al., 1999; Cole & Pargament, 1999; Cotton et al., 1999; Feher & Maly, 1999; Gall et al., 2000; Mickley et al., 1992) and/or psychological variables (e.g., psychological well-being, psychological adjustment, quality of life) (Brady et al., 1999; Cole & Pargament, 1999; Cotton et al., 1999; Feher & Maly, 1999; Gall et al., 2000; Mickley et al., 1992) in breast cancer patients; however, we found only one that utilized, in part, an experimental methodology (Dibbell-Hope, 2000). Experimental studies of potentially effective “psychotherapeutic methods that will make a significant contribution to [cancer] patient care and become an integral part of clinical practice” remain challenging and scarce (Greer, 1999, p. 242). The purpose of this study was to determine the efficacy of a creative art therapy intervention to enhance emotional expression, spiritual connectedness, and select aspects of psychological well-being in newly diagnosed, Stage I and Stage II breast cancer patients.

This chapter describes the research hypotheses, population, data collection (including attrition), sample and sampling procedures, design of the study, including
relevant variables, instrumentation, and data analysis. Methodological limitations of this research study are also discussed.

**Research Hypotheses**

The following research hypotheses were evaluated in this study.

**Ho(1):** There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on emotional expression, as measured by the Emotional Approach Coping Scale (EACS) in newly diagnosed, Stage I and Stage II breast cancer patients.

**Ho(2):** There is a significant difference between the experimental group’s pre-and post-session scores on positive and negative emotional expression/states as measured by the Emotional Assessment Scale (EAS) in newly diagnosed, Stage I and Stage II breast cancer patients.

**Ho(3):** There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on spirituality, as measured by the Expressions of Spirituality Inventory-Revised (ESI-R), in newly diagnosed, Stage I and Stage II breast cancer patients.

**Ho(4):** There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Tension-Anxiety, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.

**Ho(5):** There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Depression-Dejection, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.
Ho(6): There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Anger-Hostility, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.

Ho(7): There is no significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Vigor-Activity, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.

Ho(8): There is no significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Fatigue-Inertia, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.

Ho(9): There is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Confusion-Bewilderment, as measured by the Profile of Mood States (POMS), in newly diagnosed, Stage I and Stage II breast cancer patients.

**Description of the Population**

The population was comprised of newly diagnosed breast cancer patients. The subjects were diagnosed with Stage I or Stage II breast cancer within 12 months of being referred to the study. The sample was recruited from women recently diagnosed with breast cancer who reside in the North Central Florida area and were receiving treatment through the cancer center at Shands Hospital, the cancer center at North Florida Regional Medical Center, the Suwanee Valley Cancer Center in Lake City, Florida, and/or through oncology specialists in the Gainesville and Lake City communities.
The U.S. Census Bureau (2001) estimates that the North Central Florida area, which includes Alachua, Bradford, Citrus, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Madison, Marion, Putnam, Suwanee, Taylor, and Union counties, has about 936,700 residents with 47% being female. North Central Florida area’s population breakdown by race/ethnicity is 79% Caucasian, 17% African-American, 4% Hispanic, 0.6% Asian, and 0.5% Native American. Alachua County, where this experimental study took place, has about 218,800 residents with 51% being female. Alachua County’s population breakdown by race/ethnicity is reported as follows: 74% Caucasian, 19% African-American, 8% Hispanic, 4% Asian, and 0.2% Native American.

According to the American Cancer Society (ACS, 2002) 211,300 new cases of invasive breast cancer and 55,700 in situ breast cancer cases among women are expected in the U.S. in 2003; of these cases, 39,800 deaths are expected. Breast cancer is the second most common form of cancer, “accounting for nearly one of every three cancers diagnosed in American women,” with African-Americans more likely to die from the disease than Caucasians (ACS, 2002). In the state of Florida, the incidence of female breast cancer is 18.0 (In situ) and 110.0 (Invasive) with mortality rate of 23.2 per 100,000, age-adjusted to the 1970 U.S. standard population (ACS, 2002).

Data Collection and Attrition

This study was conducted from November of 2003 through July of 2004; all data was collected throughout that time. In order to advertise the study, research flyers were posted in parking garages at Shands Hospital at the University of Florida (including the Shands Cancer Center), on bulletin boards at the Shands Cancer Center and Shands at AGH, and at local places of worship and bookstores. Flyers were also displayed at physicians’ private offices in Gainesville and Lake City, specializing in oncology.
radiology, and oncology surgery, and at the local American Cancer Society’s Hope Lodge and related support groups. Social work, counseling, nursing and oncology care personnel at Shands Cancer Center and the aforementioned oncology offices were also given flyers and they referred subjects who qualified and expressed interest to participate in the study. Table 1 outlines the referral sources of women who participated in the study. Most of the subjects were referred by local oncology physicians (41.0%), or by friends, who knew about the study (30.8%), designated as “Other” in the demographic questionnaire. Shands Hospital at UF, specifically Shands Cancer Center personnel (20.5%) and American Cancer Society support group members (7.7%) referred the rest of the subjects who participated.

Table 3-1. Referral sources

<table>
<thead>
<tr>
<th>Referral sources</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private physician</td>
<td>10 (50.0%)</td>
<td>6 (31.6%)</td>
<td>16 (41.0%)</td>
</tr>
<tr>
<td>Shands Hospital</td>
<td>2 (10.0%)</td>
<td>6 (31.6%)</td>
<td>8 (20.5%)</td>
</tr>
<tr>
<td>American Cancer Society</td>
<td>2 (10.0%)</td>
<td>1 (5.3%)</td>
<td>3 (7.7%)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (30.0%)</td>
<td>6 (31.6%)</td>
<td>12 (30.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100.0%)</td>
<td>19 (100.0%)</td>
<td>39 (100.0%)</td>
</tr>
</tbody>
</table>

Once contact was made with a potential research subject, the primary investigator explained details of the study to her. If the woman chose to participate, she was randomly assigned to the experimental or control group. Experimental and control group subjects received an appointment to meet with their randomly designated counselor following completion and receipt of all pretest documents, pretest measure, and informed consent. Experimental group subjects began individual art therapy treatment at the appointed time. Control group subjects met with one of the study’s counselors at the end of the four-week delayed treatment period to complete the posttest measures. Individual art therapy treatment for control group subjects began upon completion of all posttest measures.
Forty-four women volunteered to participate and 41 completed the study. Two of the women who initially wanted to participate changed their minds and never completed the informed consent form or other pre-test documents. Of the twenty women in the control group, seven did not complete the delayed treatment offered to them, after completion of post-test measures. Three women indicated their lives were too hectic to commit to weekly sessions and three others did not offer an explanation for declining the treatment. Messages left by the designated counselor, in an attempt to schedule the first session, were not returned. Finally, another woman discontinued treatment after two sessions because of sudden plans to relocate out of the area with her family.

Although 41 women completed the study, the final total sample consisted of 39 women. During the statistical data analyses, we discovered two outliers, one in the control group and another in the experimental group. The control group subject encountered a crisis about two weeks into the delayed treatment wait period. She phoned her designated counselor and a discussion ensued that lasted approximately 15 minutes. Subsequently, this subject exhibited enhanced psychological well-being on post-test scores. We hypothesized that this brief contact may have influenced her post-test scores. The experimental group subject reported an accidental death by drowning in her immediate family between sessions two and three and her psychological well-being post-test scores appear to reflect the emotional repercussions of this loss. Data collected from these outliers was eliminated due to the aforementioned circumstances and probable effects on post-test scores.

**Sample and Sampling Procedures**

Approval by the Institutional Review Board (IRB) at the University of Florida was obtained before collecting data for this study. The total sample of women who
participated in this study was 39. In order to participate, the woman was diagnosed with Stage I or Stage II breast cancer within 12 months prior to entering the study. A Release of Information for the subject’s treating oncology physician was obtained (Appendix A) to ascertain that the subject met inclusion criteria. All women in this research study were voluntary participants.

The subjects were recruited from Shands Hospital and North Florida Regional Medical Center’s cancer treatment centers, from the Suwanee Valley Cancer Center in Lake City, and from oncologists’ private practice offices in the Gainesville and Lake City communities. A research announcement flyer was used to disseminate research recruitment information to subjects who met the research eligibility criteria (Appendix B). Some subjects were recruited from the local ACS support network. The subjects were adult women, 18 years of age and older, who volunteered and signed an informed consent for participation in the study. Posted notices at Gainesville area community bookstores and worship centers were also utilized. The subjects called a designated contact number and left a message expressing interest in the research project. The primary investigator talked to the callers and screened them according to outlined criteria with verification occurring after receipt of the subject’s signed Release of Information form and Informed Consent form (Appendix C). Subjects were informed that they would be randomly assigned, using the flip of a coin, to a control group (delayed treatment for 4 weeks) or an experimental group (four individual creative art therapy interventions over 4 weeks). Control group subjects were informed that they would complete pretest measures and begin the treatment protocol 4 weeks later, after posttest measures were obtained.
Descriptive Data Analysis

Table 3-2 and Table 3-3 outline descriptive and demographic variables of the women who participated in this research study. Within the treatment group, 3 women (15.0%) were African American, 14 (70.0%) were Caucasian, and 3 (15.0%) were Hispanic. Eight (40.0%) of the women in the treatment group had a high school education, none (0%) had an associate degree, 5 (25.0%) had a bachelor degree, and 4 (20.0%) had a master degree or above. Three women (15.0%) in the treatment group marked “other,” indicating they received vocational training in office administration, marketing, and graphic arts.

Within the control group, one (5.3%) was African American, 16 (84.2%) were Caucasian, and one (5.3%) was Hispanic. Six (31.6%) of the women in the control group had a high school education, 2 (10.5%) had an associate degree, 6 (31.6%) had a Bachelor degree, and 3 (15.8%) had a master degree or above. Two women (10.5%) in the control group marked “other,” indicating they received certification in nursing assistance and sales.

<table>
<thead>
<tr>
<th>Race</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>3 (15.0%)</td>
<td>1 (5.3%)</td>
<td>4 (10.3%)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>14 (70.0%)</td>
<td>16 (84.2%)</td>
<td>30 (76.9%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3 (15.0%)</td>
<td>1 (5.3%)</td>
<td>4 (10.3%)</td>
</tr>
<tr>
<td>Native American</td>
<td>0 (0%)</td>
<td>1 (5.3%)</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100.0%)</td>
<td>19 (100.0%)</td>
<td>39 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational level</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school diploma</td>
<td>8 (40.0%)</td>
<td>6 (31.6%)</td>
<td>14 (35.9%)</td>
</tr>
<tr>
<td>Associate degree</td>
<td>0 (0%)</td>
<td>2 (10.5%)</td>
<td>2 (5.1%)</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>5 (25.0%)</td>
<td>6 (31.6%)</td>
<td>11 (28.2%)</td>
</tr>
<tr>
<td>Master degree above</td>
<td>4 (20.0%)</td>
<td>3 (15.8%)</td>
<td>7 (17.9%)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (15.0%)</td>
<td>2 (10.5%)</td>
<td>5 (12.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100.0%)</td>
<td>19 (100.0%)</td>
<td>39 (100.0%)</td>
</tr>
</tbody>
</table>
Data pertaining to age by groups is presented in Table 3-4. The mean age for the creative art therapy group was 51.8 years with a standard deviation of 13.0 years. The mean age for the control group of delayed treatment was 50.9 years with a standard deviation of 10.7 years.

Table 3-4. Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Treatment group (n=20)</th>
<th>Control group (n=19)</th>
<th>Total (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>51.8</td>
<td>50.9</td>
<td>51.4</td>
</tr>
<tr>
<td>St. D</td>
<td>13.0</td>
<td>10.7</td>
<td>11.88</td>
</tr>
</tbody>
</table>

Table 3-5 and Table 3-6 delineate descriptive data regarding participants' breast cancer. Within the treatment group, 14 women (70.0%) were diagnosed with Stage I breast cancer and six women (30.0%) with Stage II. Within the control group, six women (31.6%) were diagnosed with Stage I breast cancer and 13 women (68.4%) with Stage II.

Table 3-5. Stage of breast cancer

<table>
<thead>
<tr>
<th>Stage of breast cancer</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>14 (70.0%)</td>
<td>6 (31.6%)</td>
<td>20 (51.3%)</td>
</tr>
<tr>
<td>Stage II</td>
<td>6 (30.0%)</td>
<td>13 (68.4%)</td>
<td>19 (48.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100.0%)</td>
<td>19 (100.0%)</td>
<td>39 (100.0%)</td>
</tr>
</tbody>
</table>

The type of treatment prescribed for Stage I and Stage II breast cancer is seldom singular; therefore, table six delineates the most common treatments and combinations thereof for the 39 women who participated in this study. Within the treatment group, for type of surgery, 15 women (75.0%) underwent a lumpectomy, one (5.0%) a partial mastectomy, and four (20.0%) a mastectomy. Four women (20.0%) reported receiving chemotherapy, six (30.0%) received radiation therapy, and five (25.0%) received both chemotherapy and radiation therapy. Two women (10.0%) reported receiving chemotherapy and expecting to also receive medication therapy (e.g., Tamoxifen®, Femara®) over 2 to 5 years posttreatment(s). Additionally, three women (15.0%), who
had not received chemotherapy, reported they expected to receive medication therapy (e.g., Tamoxifen®, Femara®) over 2 to 5 years posttreatment(s). No other women in the treatment group indicated they expected to receive medication therapy post-treatment(s).

Within the control group, for type of surgery, 11 women (57.9%) underwent a lumpectomy, none (0.0%) a partial mastectomy, and 8 (42.1%) a mastectomy. Six women (31.6%) reported receiving chemotherapy, 2 (10.5%) received radiation therapy, and 5 (26.3%) received both chemotherapy and radiation therapy. Two women (10.5%) reported they received chemotherapy and expected to also receive medication therapy (e.g., Tamoxifen®, Femara®) over 2 to 5 years posttreatment(s). An additional four women (21.1%), who had not received chemotherapy, reported they expected to receive medication therapy (e.g., Tamoxifen®, Femara®) over 2 to 5 years posttreatment(s). No other women in the treatment group indicated they expected to receive medication therapy posttreatment(s).

Table 3-6. Treatment for breast cancer

<table>
<thead>
<tr>
<th>Types of treatment</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumpectomy</td>
<td>15 (75.0%)</td>
<td>11 (57.9%)</td>
<td>26 (66.7%)</td>
</tr>
<tr>
<td>Partial mastectomy</td>
<td>1 (5.0%)</td>
<td>0 (0%)</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>Mastectomy</td>
<td>4 (20.0%)</td>
<td>8 (42.1%)</td>
<td>12 (30.8%)</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>4 (20.0%)</td>
<td>6 (31.6%)</td>
<td>10 (25.6%)</td>
</tr>
<tr>
<td>Radiation</td>
<td>6 (30.0%)</td>
<td>2 (10.5%)</td>
<td>8 (20.5%)</td>
</tr>
<tr>
<td>Chemo/radiation</td>
<td>5 (25.0%)</td>
<td>5 (26.3%)</td>
<td>10 (25.6%)</td>
</tr>
<tr>
<td>Drug(s) with chemo</td>
<td>2 (10.0%)</td>
<td>2 (10.5%)</td>
<td>4 (10.3%)</td>
</tr>
<tr>
<td>Drug(s) without chemo</td>
<td>3 (15.0%)</td>
<td>4 (21.1%)</td>
<td>7 (17.9%)</td>
</tr>
</tbody>
</table>

Note. * Multiple responses

The lapsed time since diagnoses at enrollment into the study is summarized in Table 3-7. Within the treatment group, nine women (45.0%) were diagnosed 1-3 months prior to enrollment into the study, six women (30.0%) 4-6 months, one woman (5.0%) 7 to 9 months, and four women (20.0%) 10 to 12 months. Within the control group, five
women (26.3%) were diagnosed 1 to 3 months prior to enrollment into the study, five women (26.3%) 4 to 6 months, four women (21.1%) 7 to 9 months, and five women (26.3%) 10 to 12 months.

Table 3-7. Time since diagnosis at enrollment

<table>
<thead>
<tr>
<th>Time from diagnosis</th>
<th>Treatment group (%)</th>
<th>Control Group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 months</td>
<td>9 (45.0%)</td>
<td>5 (26.3%)</td>
<td>14 (35.9%)</td>
</tr>
<tr>
<td>4-6 months</td>
<td>6 (30.0%)</td>
<td>5 (26.3%)</td>
<td>11 (28.2%)</td>
</tr>
<tr>
<td>7-9 months</td>
<td>1 (5.0%)</td>
<td>4 (21.1%)</td>
<td>5 (12.8%)</td>
</tr>
<tr>
<td>10-12 months</td>
<td>4 (20.0%)</td>
<td>5 (26.3%)</td>
<td>9 (23.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100.0%)</td>
<td>19 (100.0%)</td>
<td>39 (100.0%)</td>
</tr>
</tbody>
</table>

**Design of the Study**

The experimental study involved a pretest/posttest control group design and included the random assignment of subjects to a treatment group (independent variable of individual creative art therapy intervention) or a control group (delayed treatment for 4 weeks). Women recently diagnosed with Stage I or Stage II breast cancer were included in the study.

Two mental health counselors conducted the study. They were doctoral candidates in counselor education at the University of Florida at the study’s inception. One has a Master of Health Science degree in rehabilitation counseling, a Specialist in Education degree in research and evaluation, and a Doctor of Philosophy degree in counselor education. She is a licensed mental health counselor in the state of Florida and was 52 years of age at the time of the study. The second counselor has a master’s degree in counselor education. She is a licensed mental health counselor in the state of Florida and was 41 years of age at the time of the study. The counselors have over 30 years of collective experience in mental health counseling. Two counselors were used in order to decrease experimenter effect.
Once a potential research subject was identified, the primary researcher randomly assigned the individual to the experimental or control group. The primary investigator contacted each subject randomly assigned to the experimental group, informed her about the study, and asked if she still wanted to participate. Each experimental group subject who agreed to be in the study received (via U.S. mail) an introduction to the study letter (Appendix D), a release of information form, an informed consent form, a pretest measure (profile of mood states) and a demographic questionnaire (Appendix E) to be completed and returned via U.S. mail prior to arrival for the first therapy appointment. Experimental group subjects received an appointment, to meet with their designated counselor, following completion and receipt of the release of information, informed consent, pretest measure, and demographic questionnaire.

The primary investigator contacted each subject randomly assigned to the control group, informed her about the study, and asked if she still wanted to participate. Each control group subject who agreed to be in the study received (via U.S. mail) an introduction to the study letter (Appendix F), a release of information form, an informed consent form, a pretest measure (profile of mood states), and a demographic questionnaire.

At the end of the 4 weeks, each control group subject met with one of the study’s counselors to complete the posttest measures (Emotional Approach Coping Scale, Expressions of Spirituality Inventory-Revised, Profile of Mood States), and to set up the first posttest treatment session. If a control group subject was unable to attend the posttest session, she received a phone call where the counselor instructed her to complete the questionnaire package that was sent via U.S. mail. A cover letter (Appendix G) and written instructions (Appendix H) were included in the package. A self-addressed,
stamped envelope was provided so the control group subject could return the completed questionnaires to the researcher. An appointment to begin posttest treatment sessions was set up after receipt of the posttest measures. The treatment protocols for the control group of delayed treatment and for the experimental group were the same.

Individual, creative art therapy sessions for the experimental group subjects were held in a Gainesville private practice office and in a Lake City private practice office. Each experimental group subject received four individual therapy sessions, including a closure session during which posttest measures were completed. When an experimental group subject arrived for the initial individual session, the designated counselor reviewed the informed consent process with her. The subject was given an opportunity to ask questions about the informed consent, the release of information, the completed measures, and the research project itself. The counselor then reiterated that participation in this individual therapeutic experience was strictly voluntary and that the decision to participate would not affect the services that they received in the individual sessions. Once a subject agreed to proceed and participate in the research process, the assigned intervention began. Each individual creative art therapy session lasted approximately 60 minutes.

If an experimental group subject was unable to attend the final, posttest session, she received a phone call where the counselor instructed her to complete the posttest measures (Emotional Approach Coping Scale, Expressions of Spirituality Inventory-Revised, Profile of Mood States) and an exit interview form (Appendix I) that was sent via U.S. mail. A cover letter (Appendix J) and written instructions (Appendix K) were included in the package. A self-addressed, stamped envelope was provided so the experimental group subject could return the completed questionnaires to the researcher.
Delineation of Relevant Variables

**Independent Variable**

The independent variable used in this study was an individual creative art therapy intervention. There were a total of four individual therapy sessions over a 4-week period. Each session lasted approximately 60 minutes. The last session lasted approximately 90 minutes to allow for completion of posttest measures. The individual sessions consisted of guided, semi-structured, creative art therapy exercises. The interventions were adapted from art therapy manuals and texts (Crockett, 2000; Horovitz-Darby, 1994; Lesser, 1999) and were specifically designed to facilitate emotional expression, spiritual connectedness, and psychological well-being (Appendix L).

Although the sessions were semi-structured, the counselors took care to attend to each woman’s emotional and psychological needs at the time of the intervention(s). The women were encouraged to bring into each session whatever issue(s) of concern were salient that particular week. The semi-structured interventions were designed to provide a framework of emotional and psychological exploration and an opportunity for emotional expression and support. The guiding theoretical framework was positive psychology; a humanistic psychology that encourages uncovering and building upon clients’ strengths rather than psychopathology. Each woman brought a set of traits and characteristics that they drew from in the process of adjusting to and managing their breast cancer diagnosis or any other emergent concerns. Each woman was encouraged to explore their strengths and ways to engage these in their healing process, including managing difficult emotional states. The exploration of these themes was done both verbally and through the creative art therapy exercises outlined herein.
Each individual counseling session involved the counselor engaging the subject in semi-structured creative art therapy experiences using pencils, pastels and/or acrylic painting supplies. The subject completed the creative art experience in available multi-purpose drawing/painting tablets. The counselor focused the creative experience on subjective symbols and metaphors of emotional expression, spirituality, and the use of color to represent salient emotional states. Creative freedom was allowed and encouraged in order to facilitate the woman’s emotional expression, spiritual connectedness, and psychological well-being. The treatment protocols for the experimental group and for the control group of delayed treatment were the same.

The individual creative art therapy exercises included exploration of the breast cancer experience, a guided meditation developed to assist the client increase body awareness and connection, a spiritual belief questionnaire intended to assist with exploration of spiritual themes, including the role that a belief in a higher being (i.e., G-d, Jesus, Allah, Krishna, Buddha) plays in the experience of coping with life problems; including the breast cancer. The last session included a creative poetry writing exercise geared toward the exploration of life and death issues through words, imagery, and metaphor.

The questions guiding session one were meant to elicit meaning making of the breast cancer experience. As previously stated, a breast cancer diagnosis can raise existential dilemmas that put women face-to-face with issues of life purpose, meaning, and death (Spiegel, 1999). Session two underscored the importance of a holistic approach to health and healing. It provided a guided exploration of body-emotion awareness and connection whereby each woman could experience sensations, feelings, degrees of comfort, and discomfort present within their bodies. The experience was geared toward a
psychoeducational and subjective understanding of each woman’s body-mind-emotions and spirit experiences and connections. The third session was a more structured series of questions aimed at eliciting awareness of spiritual development over the lifespan, uncovering places of congruence and incongruence, exploring specific beliefs and practices that may enhance or hinder spiritual groundings. The women also had an opportunity to visually represent their idea of a higher power and delineate the ways that this force has influenced their lives, if at all. Finally, the last session was conducted in a spirit of playfulness and through the use of creative written and verbal expression. Each woman was asked to answer a series of questions about themselves that encouraged the use of active imagination. They were then instructed to write two poems using the words from a list of answers. The themes were life and death and were meant to assist with the uncovering of personal meaning and beliefs about each. This session enhanced self-awareness pertaining to deeply held beliefs about the purpose of life itself and ideas around death and/or the dying process. All individual sessions were aimed to facilitate self-awareness, emotional exploration and expression, and the discovery of personal strengths and potential areas of growth.

Dependent Variables

The dependent variables of this study were emotional expression, including pre- and postsession emotional reactivity for the experimental group subjects, spirituality, and select aspects of psychological well-being. Emotional expression was assessed by the Emotional Approach Coping Scale (EACS) (Stanton, Kirk, et al., 2000). Pre- and postsession emotional reactivity for the experimental group was assessed by the Emotional Assessment Scale (EAS) (Carlson et al., 1989). Attempts were made for the EAS to be administered pre- and postsession by a counselor other than the subject’s
designated one. This practice, an effort to take care of the experimenter effect, was not always possible or practical. Spirituality was assessed by the Expressions of Spirituality Inventory–Revised (ESI-R) (MacDonald, 2000a). Psychological well-being was assessed by the Profile of Moods States (POMS) (McNair, Lorr, & Droppleman, 1971).

Instrumentation

The Emotional Approach Coping Scale (EACS), the Emotional Assessment Scale (EAS), the Expressions of Spirituality Inventory-Revised (ESI-R), the Profile of Moods States (POMS), a demographic questionnaire, and an exit interview were used to assess subjects. The pretest instruments took an average of 10 minutes and the posttest instruments an average of 20 minutes to complete. The pre- and postsession tests of emotional reactivity (EAS) for the experimental group took about one minute each to complete.

Emotional Approach Coping Scale (EACS)

The Emotional Approach Coping Scale (EACS) was used to assess emotional expression. The EACS was developed by Stanton, Kirk, et al. (2000) in order to assess emotional approach coping, a construct based on a functionalist theory of emotions (Campos et al., 1994; Levenson, 1994) as potentially adaptive for individuals in distress. Emotional approach coping involves the active processing “(i.e., active attempts to acknowledge and understand emotions)” and expression of emotions (Stanton, Kirk, et al., 2000, p. 1150). The EACS includes subscales measuring emotional processing and emotional expression. The scale has been used in several studies with breast cancer patients (Stanton & Danoff-Burg, 2002; Stanton, Danoff-Burg, et al., 2000).

Research that explored the conceptual and confounding problems in extant measures of emotion-focused coping led to the development of the EACS (Stanton et al.,
Stanton, Kirk et al. (2000) identified three emotion-focused coping domains: identification of emotions, emotional processing, and emotional expression. The preliminary measure tested by Stanton and her research team included a total of 94 items: 33 items generated by Stanton and her research-team members and representative of the three specified emotion-focused coping domains, embedded in a multi-dimensional coping-strategies inventory of proven validity and reliability: the COPE, which has 48 items (Carver, Scheier, & Weintraub, 1989). An additional 13 items, all considered to contain the confounding factors of distress and self-deprecatory statements, were added to demonstrate their distinction from the author-constructed items. The EACS used four-point response options (1 = I usually don’t do this; 4 = I usually do this a lot) and was tested in several research studies.

The first study consisted of 400 undergraduate psychology students who completed the dispositional coping measure and the Emotional Expressiveness Questionnaire (EEQ; King & Emmons, 1990), an existing measure of positive, negative and intimacy-related emotional expression. Combined data (male and female scores) of all 94 items were “submitted to a maximum likelihood factor analysis with promax rotation” (Stanton, Kirk, et al., 2000, p. 1153) that yielded 9 factors: Emotional Processing, Emotional Expression, Distress-contaminated Coping, Seeking Social Support, Problem-focused Coping, Alcohol-drug Disengagement, Avoidance, Humor, and Turning to Religion. The Emotional Identification and Emotional Processing domains loaded on a single factor.

Using high factor loadings and lack of redundancy as criteria, the authors chose four items each to represent the constructs of emotional processing and emotional expression. Internal consistencies are reported as follows: Cronbach’s coefficient alpha
for emotional processing, $r = 0.72$ and for emotional expression, $r = 0.82$. Test-retest reliabilities were emotional processing $= 0.73$ and emotional expression $= 0.72$. The correlations between the emotional processing scale and the emotional expression scale and the EEQ were reported as significant ($p < .005$). Stanton, Kirk, et al. (2000) reported “the correlation between the emotional processing and emotional expression scales was .52 at Time 1 and .65 at Time 2 ($p < .0001$)” (p. 1153). In order to control for self-report response bias, the researchers conducted another study where students and family members assessed each other’s coping. The researchers reported internal consistencies for self-reported coping through Emotional Processing as: $\alpha = .88$ for students, .90 for mothers, and .80 for fathers; for Emotional Expression they were reported as: $\alpha = .92$ for students, .91 for mothers, and .90 for fathers.

The final EACS consists of 16 items measuring the constructs: emotional processing (eight items) and emotional expression (eight items). Stanton, Kirk, et al. (2000) suggested that the scales be interpreted separately whenever emotional approach coping is not the primary variable of interest. Although the authors embedded the original EACS into other multi-dimensional coping measures, in this study, only the Emotional Expression sub-scale was used to measure emotional expression.

**Emotional Assessment Scale (EAS)**

The EAS was designed by Carlson et al. (1989) to measure emotional reactivity. This 24-item, self-report instrument is used to capture multiple, complex, simultaneous emotions in individuals. It examines eight emotional states considered consistent across cultures: anger (items 4, 12, 20), anxiety (items 6, 14, 22), disgust (items 3, 11, 19), fear (items 2, 9, 17), guilt (items 5, 13, 15), happiness (items 8, 16, 24), sadness (items 7, 21,
23), and surprise (items 1. 10. 18). The instrument has been deemed “very useful . . . for measuring momentary levels and changes in emotions” (Fischer & Corcoran, 1994, p. 203). Each item response ranges from “Least possible” to “Most possible” emotional state at the moment of scale completion. The test is scored by measuring the number of millimeters from the left endpoint of the slash mark placed by the subject and located on a 100mm line. Three items comprising each emotion are summed up for a score for that emotion.

The scale developers chose a visual analogue scale (VAS), used to measure variations on intensity of pain (Price, McGrath, Rafii, & Buckingham, 1983), and thought to be particularly useful in evaluation of ongoing and shifting emotional states (Carlson et al., 1989). Carlson et al. contended that using a VAS in the measurement of emotions “could be a valuable means of assessing ongoing emotional processes of persons engaged in therapy or involved in psychological interventions designed to influence emotional processes” (p. 315-316). The fact that a metric is used (instead of easily remembered numbers) also decreases the chances that respondents’ posttest ratings will be influenced by pretest responses.

The EAS was developed on undergraduate psychology students, ages 18 to 34, 62% being female and 38% male. Reported means and standard deviations were as follows: anger mean = 14.6 (SD = 18.9); anxiety mean = 32.4 (SD = 24.5); disgust mean = 9.7 (SD = 13.3); fear mean = 13.0 (SD = 14.5); guilt mean = 12.6 (SD = 14.5); happiness mean = 38.8 (SD = 23.8); sadness mean = 19.1 (SD = 19.6); and surprise mean = 10.7 (SD = 10.4) (Fischer & Corcoran, 1994). Carlson et al. (1989) reported reliability coefficients of: anger = .90; anxiety = .91; disgust = .71; fear = .89; guilt = .74; happiness = .90; sadness = .82; and surprise = .70.
The EAS is reported to have very good concurrent validity, with several of the subscales correlating with existing measures such as the POMS, the Beck Depression Inventory, and the State-Trait Anxiety Inventory (State form). The subscales are sensitive to externally induced stress levels, making it particularly useful to measure emotional reactivity in newly diagnosed breast cancer patients attempting to adjust to and cope with a highly stressful situation. It is reported that the EAS’s reliability is “good to excellent” with inter-item reliability for emotion factors ranging from .70 to .91 and split-half reliability of .94 (Fischer & Corcoran, 1994, p. 203).

**Expressions of Spirituality Inventory–Revised (ESI-R)**

The Expressions of Spirituality Inventory (ESI), developed by MacDonald (2001), is a measure of spirituality derived from a two-stage factor analytic study of more than 70 measures of spirituality with about 1,400 subjects (MacDonald, Kuentzen, & Friedman 1999). MacDonald created the ESI “to provide a well-designed and validated measure of spirituality that incorporates existing psychometric conceptualizations into a coherent organizational framework on which to understand and research the various elements of the construct” (p. 157).

Spiritual dimensions resulting from the factor analysis were (a) Cognitive Orientation Towards Spirituality (COS), (b) Experiential/Phenomenological Dimension (EPD), (c) Existential Well-being (EWB), (d) Paranormal Beliefs (PAR), and (e) Religiousness (REL).

The Cognitive Orientation Towards Spirituality (COS) dimension refers to spiritual beliefs that are not expressed through religious affiliation. These may involve beliefs, perceptions, and attitudes about the importance of spirituality in everyday life.
The Experiential/Phenomenological Dimension (EPD) refers to spiritual experiences that are of a transpersonal and mystical nature.

The Existential Well-being (EWB) dimension involves aspects of spirituality related to existential facets of human functioning. This dimension appears to include three main components: meaning and purpose in life, which derives from any number of sources, a sense of inner strength and perceiving oneself as able to effectively cope with fundamental aspects of life. The latter includes a relaxed approach to self and to everyday life challenges.

The Paranormal Beliefs (PAR) dimension involves beliefs in scientifically unproven phenomena. The PAR dimension has been associated with higher indices of pathology, including unusual thought patterns, psychosis, external locus of control, and suggestibility (MacDonald, LeClair, Holland, Alter, & Friedman, 1995; MacDonald et al., 1999).

Finally, the Religiousness (REL) dimension involves an intrinsic religious orientation based on organized religious affiliation and practices. The REL dimension is comprised of two aspects: (a) nondenominational beliefs about a higher power or being and (b) religious practices such as prayer, attendance to religious services and meditation. Extrinsic religious orientation (i.e., religious attendance for social status or gain) is specifically excluded from the REL dimension.

Respondents of the ESI use a 5-point Likert-type scale (0 = Strongly Disagree, 1 = Disagree, 2 = Neutral, 3 = Agree, 4 = Strongly Agree) to rate agreement or disagreement with given statements. The long form consists of 98 items (42 reverse worded to counteract response bias). Two items at the end were added to provide face and content validity. MacDonald et al., (1999) concluded that the ESI “is a soundly
developed test with reasonable reliability and validity that systematically embodies numerous constructs as tapped by several existing measures of spirituality” (p. 159).

According to MacDonald (2000a), feedback from research participants and from other investigators indicated that a 98-item version of the ESI presented problems that made use of the measure difficult. Specifically, elderly populations reported problems with the length of the instrument, other respondents complained that the items were repetitive, and some of the reverse or negatively worded items proved difficult to certain respondents, especially those for whom English was a second language. In order to address these issues, MacDonald developed a revised version of the ESI. This study utilized the revised version of the instrument, to minimize strain on subjects.

The ESI-R consists of 32 items. As in the original ESI, two items at the end were added to provide face and content validity. MacDonald (2000a) reported that the ESI-R is different from the longer version of the test in three ways:

(1) The revised ESI consists of 30 items, six for each dimension; (2) Items were selected from the 98-item version of the ESI based upon both uniqueness of content as well as evidence of satisfactory psychometric properties. As such, any appearance of item repetition is virtually eliminated from the instrument. Further, the psychometric properties and correlates of the revised ESI are highly similar to those for the longer version (e.g., all revised dimensions have been found to produce scores with good reliability and satisfactory factorial validity); and (3) Reverse worded items are kept to a minimum. (p. 18)

The ESI-R’s alpha coefficients range from .85 for Existential Well-Being to .97 for Cognitive Orientation towards spirituality. MacDonald et al. (1999) reported that “corrected item-dimension total score correlations range from .40 to .80 for all items” (p. 158). MacDonald (2000a) reported evidence of factorial, discriminant, convergent, and criterion validity in the ESI-R.
Profile of Mood States (POMS)

The POMS, developed by McNair et al. (1971), is a 65-item, 5-point Likert-type scale of adjective ratings that are factored into six mood scores: tension-anxiety, depression-dejection, anger-hostility, vigor-activity, fatigue-inertia, and confusion-bewilderment. Subjects indicate mood states or reactions for the "past week including today" or for brief periods such as "right now" (Eichman, 1978). Reliability of the POMS ranges from .84 to .95 and test-retest correlations range from .65 to .74. This is reported as a considerable difference; however, congruent with a measure of mood states that are deemed transient and changeable. Eichman concluded that the POMS "appears to be optimally reliable and sensitive to change . . . and a valid measure of mood states [that] is simple and easy to use" (p. 1018). Face validity is reported as good (Eichman, 1978).

The POMS are a frequently used product development tool. Scores that form each of these scales can be combined to yield a total mood disturbance score. Historically, the scales have been used in research requiring a sensitive measure of affect following a program of behavior modification, among others. Because of their documented use with the population of breast cancer patients (Carver et al., 1993; Classen et al., 1996; Dibbell-Hope, 2000; Goodwin et al., 2001; Hosaka et al., 2000; Spiegel et al., 1999; Stanton & Danoff-Burg, 2002; Stanton, Danoff-Burg, et al., 2000) and considerable psychometric properties (Eichman, 1978), the POMS sub-scales’ scores were used as a measure of psychological well-being in this study.

Demographic Questionnaire

Demographic variables about each woman with breast cancer were obtained by using the Demographic Questionnaire. The measure included information about the woman’s ethnicity, age, county of residence, referral source to the study, type and stage
of breast cancer, medical treatment received for the breast cancer, and previous experience with art therapy. The questionnaire also included details about the subject’s (in-home or out-of-home) employment situation. Finally, an open-ended question explored whether the subject wanted to disclose additional information about herself that had not been included in the questionnaire. The information included in this demographic questionnaire was used in the final analysis of data.

**Exit Interview**

An exit interview form was obtained from each research subject in the control and experimental groups who completed all four creative art therapy sessions. The exit interview form explored the subjects’ assessment of their participation in the study, their opinions about the helpfulness of the creative art therapy interventions, whether they would recommend the experience to other breast cancer patients, and suggestions for health care providers, including mental health counseling practitioners, in general, and the researchers of this study, in particular. The information obtained in this form was used as a measure of clinical significance as it reflected each woman’s subjective appraisal of the individual creative art therapy experience, including perceived emotional and psychological benefits thereof. This information also helped inform recommendations for future research and clinical practice.

Finally, the main researcher of this study kept a reflective journal of the research process in an attempt to document issues or concerns pertaining to research design, subject recruitment, treatment implementation, results, and any other noteworthy items that could help inform future research and clinical practice. Relevant entries from this narrative process will be reviewed and addressed in the discussion section.
Data Analysis

To examine the effects of an individual creative art therapy intervention on emotional expression, spiritual connectedness, and psychological well-being, while controlling the covariates (i.e., relevant POMS pretest sub-scales scores), a series of ANCOVA were used to analyze the data. The omnibus hypotheses was tested at $\alpha = .05$.

To examine the effects of an individual creative art therapy intervention on emotional reactivity and expression of the experimental group subjects, pre- and post-session, using the EAS scores, a series of paired t-tests were used to analyze the data.

Methodological Limitations

Some of the symptoms frequently reported by cancer patients are fatigue, sleep disturbance, nausea, diminished concentration, and pain; these are due, in part, to the physically taxing treatment regimens of radiation and/or chemotherapy (Jacobson & Verret, 2001). As a result, some women were unable to complete certain aspects of the experimental protocol and sessions required rescheduling to accommodate for treatment-related problems (e.g., side effects). Additionally, this experimental study involved a pretest/posttest control group design and included the random assignment of subjects to a treatment group or a control group. While the experimental condition required attendance to four sessions over a 4-week period, the control condition did not. This differential in attendance over time (pretest, treatment, and posttest) produced some "mortality," which [introduced] subtle sample biases” into the study (Campbell & Stanley, 1963, p. 15).

The interaction of selection and the individual creative art therapy treatment presented a threat to external generalization. Richardson et al. (1998) have studied the recruitment of subjects to complementary/alternative therapies, including mind-body
interventions. Estimates of cancer patients who use complementary/alternative, and mind-body therapies range from 50% to 80% (Boon, Brown, Gavin, Kennard, & Stewart, 1999; Richardson et al., 1998). A review of extant literature by Richardson et al. indicated that women who seek complementary/alternative, and mind-body therapies tend to be between 30 and 50 years of age, better educated, wealthier, Caucasian, and living in the Western or Northeastern regions of the United States. These facts may have limited the ability to generalize results of this study to the population of newly diagnosed breast cancer patients.

The use of pre- and posttest scores allowed for the examination of individual performance in specific research subjects (Heppner, Kivlighan & Wampold, 1999). Heppner et al. have recommended giving a pretest because “pretest scores can be used to reduce variability in the dependent variable, thereby creating a more powerful statistical test, [plus] a pretest can be used to eliminate post hoc threats to internal validity” (p. 123). However, the interaction of the pretest and the individual creative art therapy treatment may have presented a threat to the generalizability of results to the population; we are “logically unable to generalize to the larger unpretested universe” of newly diagnosed breast cancer patients (Campbell & Stanley, 1963, p. 17). The use of a pretest in this study may have sensitized the sample and subsequently affected the treatment effect. Finally, another limitation of this study is that control group subjects may have shown posttest improvement due to the Hawthorne effect (i.e., they knew they were included in a research study, anticipated receiving the treatment protocol after 4 weeks, and had awareness of this fact).
CHAPTER 4
RESULTS OF THE STUDY

Summary and Chapter Overview

The purpose of this study was to examine, through experimental research, the efficacy of a semi-structured individual art therapy intervention to enhance the emotional expression, spirituality and select aspects of psychological well-being of newly diagnosed Stage I and Stage II breast cancer patients. Descriptive and demographic data were obtained about the subjects in this study. An exit interview questionnaire was given in order to examine clinical significance based on subjects’ opinions and perceptions about beneficial outcomes from participating in this process. Analyses of covariance (ANCOVA) and paired t-test statistical analyses were used to evaluate data pertaining to the nine research hypotheses of this study.

While the research hypotheses, population, data collection (including attrition), sample and sampling procedures, design of the study, including relevant variables, instrumentation, data analysis, and methodological limitations of this research study were reported in Chapter 3, this chapter will discuss results of hypotheses testing, results of clinical significance, and a summary of findings.

Results of Hypotheses Tests

The analyses of data for this study were accomplished through the use of the Statistical Program for Social Sciences (SPSS), version 12.0. ANCOVA were used to determine if there were statistically significant differences between the experimental and
control groups for the dependent variables of emotional expression, as measured by the Emotional Approach Coping Scale (EACS)-emotional expression subscale, spirituality, as measured by the Expressions of Spirituality Inventory-Revised (ESI-R), tension-anxiety as measured by the Profile of Mood States (POMS) tension-anxiety subscale, depression-dejection as measured by the POMS depression-dejection subscale, anger-hostility as measured by the POMS anger-hostility subscale, vigor-activity as measured by the POMS vigor-activity subscale, fatigue-inertia as measured by the POMS fatigue-inertia subscale, and confusion-bewilderment as measured by the POMS confusion-bewilderment subscale. For purposes of interpreting POMS subscale scores, note that low scores for the following subscales—tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, and confusion-bewilderment—represent higher psychological well-being. However, for the vigor-inertia subscale, lower scores represent lower psychological well-being; thus, the latter is negatively correlated to all other POMS subscales.

Paired t-tests were used to determine if there were statistically significant differences between pre- and postsession scores on emotional expression/states, as measured by the Emotional Assessment Scale (EAS), for the experimental group. All statistical tests were conducted at $\alpha = .05$. The missing values were replaced by series means using SPSS.

**Research Hypothesis One**

The first research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on emotional expression, as measured by the Emotional Approach Coping Scale (EACS)
when controlling for the covariate, pretest POMS total mood score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest POMS total mood score as the covariate, the first research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-1.

Table 4-1. Mean, standard deviation, and F score for Emotional Approach Coping Scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta^2_p$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>23.15</td>
<td>6.15</td>
<td>1.33</td>
<td>0.26</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>21.37</td>
<td>5.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$ Partial Eta Squared  
$^b$ Computed using alpha = .05

The result of the analysis indicates that there is no statistically significant difference between treatment and control groups on emotional expression when controlling for the covariate, pretest POMS total mood score. However, since the observed power was low at .20, it is inconclusive whether a significant difference exists between treatment and control groups on emotional expression as measured by the EACS. Effect size is critical in assessing the outcomes of treatment interventions when a small sample size, such as this study’s (N=39), shrinks the power of statistical tests (Cohen, 1988). Effect size (partial eta squared [$\eta^2_p$]) was .04. That is, the independent variable (i.e., creative art therapy intervention) accounts for only 4% of the variability in the EACS scores.

**Research Hypothesis Two**

The second research hypothesis stated that there is a significant difference between the experimental group’s pre- and postsession scores on positive and negative emotional expression/states as measured by positive emotions (i.e., happiness and surprise) and negative emotions (i.e., anger, anxiety, disgust, fear, guilt, and sadness) subscales of the Emotional Assessment Scale (EAS) in newly diagnosed Stage I and
Stage II breast cancer patients. Using paired t-tests, this research hypothesis was tested.

The means, standard deviations, and t scores are presented in Table 4-2 for negative emotions and Table 4-3 for positive emotions.

Table 4-2. Mean, standard deviation, and t score for negative emotional assessment scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presession (n=80)</td>
<td>4.11</td>
<td>3.99</td>
<td>4.77</td>
<td>0</td>
</tr>
<tr>
<td>Postsession (n=80)</td>
<td>2.71</td>
<td>3.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of the analysis indicates that there is a statistically significant difference between presession and postsession on negative emotional expression/states.

Using Lipsey’s (1990) equation, effect size score was calculated. Effect size was .46, considered a moderate value (Cohen, 1988).

Table 4-3. Mean, standard deviation, and t score for positive emotional assessment scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presession (n=80)</td>
<td>7.16</td>
<td>4.46</td>
<td>-7.38</td>
<td>0</td>
</tr>
<tr>
<td>Postsession (n=80)</td>
<td>11.78</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of the analysis indicates that there is a statistically significant difference between presession and postsession on positive emotional expression/states.

Lipsey’s (1990) equation, effect size score was calculated. Effect size was .64, considered a moderate to high value (Cohen, 1988).

**Research Hypothesis Three**

The third research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on spirituality, as measured by the Expressions of Spirituality Inventory-Revised (ESI-R), when controlling for the covariate, pretest POMS total mood score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest
POMS total mood score as the covariate, the third research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-4.

Table 4-4. Mean, standard deviation, and f score for expressions of spirituality inventory-revised

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>20.85</td>
<td>2.49</td>
<td>0.39</td>
<td>0.53</td>
<td>0</td>
<td>0.09</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>20.03</td>
<td>4.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$ Partial eta squared  
$^b$ Computed using alpha = .05

The result of the analysis indicates that there is no statistically significant difference between treatment and control groups on spirituality when controlling for the covariate, pretest POMS total mood score. However, since the observed power was low at .09, it is inconclusive whether a significant difference exists between treatment and control groups on spirituality as measured by the ESI-R. Effect size (partial eta squared $[\eta_p]^2$) was .01. That is, the independent variable (i.e., creative art therapy intervention) accounts for only 1% of the variability in the ESI-R scores.

**Research Hypothesis Four**

The fourth research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, tension-anxiety, as measured by the POMS tension-anxiety subscale, when controlling for the covariate, pretest POMS tension-anxiety subscale score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest tension-anxiety score as the covariate, the fourth research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-5.
Table 4-5. Mean, standard deviation, and F score for tension-anxiety

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$ a</th>
<th>Observed power b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>17.31</td>
<td>5.01</td>
<td>5.41</td>
<td>0.03</td>
<td>0.13</td>
<td>0.62</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>20.32</td>
<td>6.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Partial eta squared  
b Computed using alpha = .05

The result of the analysis indicates that there is a statistically significant difference between treatment and control groups on tension-anxiety when controlling for the covariate, pretest POMS tension-anxiety subscale scores. The observed power was moderately high at .62. Effect size (partial eta squared $[\eta_p]^2$) was .13. That is, the independent variable (i.e., creative art therapy intervention) accounts for 13% of the variability in the POMS tension-anxiety subscale scores.

As previously mentioned (Chapter 3), the total final sample (N=39) excluded two outlier subjects. In order to illustrate the effects of these two outliers upon this dataset, the results of analysis for the preliminary sample (N=41) are presented in Table 4-6.

Table 4-6. Mean, standard deviation, and F score for tension-anxiety for preliminary sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$ a</th>
<th>Observed power b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=21)</td>
<td>17.97</td>
<td>5.72</td>
<td>2.07</td>
<td>0.16</td>
<td>0.1</td>
<td>0.29</td>
</tr>
<tr>
<td>Control group (n=20)</td>
<td>20.10</td>
<td>6.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Partial eta squared  
b Computed using alpha = .05

The results of analysis for the preliminary sample indicate that there is no statistically significant difference between treatment and control groups on tension-anxiety when controlling for the covariate, pretest POMS tension-anxiety subscale score. The observed power was low at .29. Effect size (partial eta squared $[\eta_p]^2$) was .05. That is, the independent variable (i.e., creative art therapy intervention) accounts for 5% of the
variability in the POMS tension-anxiety subscale scores. These results stand in contrast to those of the total final sample (N = 39).

**Research Hypothesis Five**

The fifth research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, depression-dejection, as measured by the POMS depression-dejection subscale, when controlling for the covariate, pretest POMS depression-dejection subscale score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest POMS depression-dejection score as the covariate, the fifth research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-7.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>( \eta_p^2 )</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>20.66</td>
<td>4.74</td>
<td>9.23</td>
<td>0.01</td>
<td>0.2</td>
<td>0.84</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>26.34</td>
<td>13.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\( \eta_p^2 \) Partial eta squared

Computed using alpha = .05

The result of the analysis indicates that there is a statistically significant difference between treatment and control groups on depression-dejection when controlling for the covariate, pretest POMS depression-dejection subscale scores. The observed power was high at .84. Effect size (partial eta squared \([\eta_p]^2\)) was .20. That is, the independent variable (i.e., creative art therapy intervention) accounts for 20% of the variability in the POMS depression-dejection subscale scores.

In order to illustrate the effects of the two outliers upon this dataset, the results of analysis for the preliminary sample (N=41) are presented in Table 4-8.
Table 4-8. Mean, standard deviation, and F Score for depression-dejection for preliminary sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=21)</td>
<td>22.01</td>
<td>7.72</td>
<td>2.79</td>
<td>0.1</td>
<td>0.1</td>
<td>0.37</td>
</tr>
<tr>
<td>Control group (n=20)</td>
<td>25.98</td>
<td>13.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4-8. Mean, standard deviation, and F Score for depression-dejection for preliminary sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=21)</td>
<td>22.01</td>
<td>7.72</td>
<td>2.79</td>
<td>0.1</td>
<td>0.1</td>
<td>0.37</td>
</tr>
<tr>
<td>Control group (n=20)</td>
<td>25.98</td>
<td>13.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Partial eta squared

The results of analysis for the preliminary sample indicate that there is no statistically significant difference between treatment and control groups on depression-dejection when controlling for the covariate, pretest POMS Depression-Dejection subscale score. The observed power was low at .37. Effect size (partial eta squared [$\eta_p^2$]) was .07. That is, the independent variable (i.e., creative art therapy intervention) accounts for 7% of the variability in the POMS depression-dejection subscale scores. These results stand in contrast to those of the total final sample (N=39).

Research Hypothesis Six

The sixth research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, anger-hostility, as measured by the POMS anger-hostility subscale, when controlling for the covariate pretest POMS anger-hostility subscale score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest POMS anger-hostility score as the covariate, the sixth research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-9.

Table 4-9. Mean, standard deviation, and F score for anger-hostility

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>15.79</td>
<td>3.74</td>
<td>7.31</td>
<td>0.01</td>
<td>0.17</td>
<td>0.75</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>19.10</td>
<td>8.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Partial eta squared

b Computed using alpha = .05
The result of the analysis indicates that there is a statistically significant difference between treatment and control groups on anger-hostility when controlling for the covariate, pretest POMS anger-hostility subscale scores. The observed power was moderately high at .75. Effect size (partial eta squared $[\eta_p^2]$) was .17. That is, the independent variable (i.e., creative art therapy intervention) accounts for 17% of the variability in the POMS anger-hostility subscale scores.

In order to illustrate the effects of the two outliers upon this dataset, the results of analysis for preliminary sample (N=41) are presented in Table 4-10.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>$p$ (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=21)</td>
<td>16.94</td>
<td>6.42</td>
<td>1.67</td>
<td>0.2</td>
<td>0</td>
<td>0.24</td>
</tr>
<tr>
<td>Control group (n=20)</td>
<td>18.90</td>
<td>7.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$ Partial eta squared
$^b$ Computed using alpha = .05

The results of analysis for the preliminary sample indicate that there is no statistically significant difference between treatment and control groups on anger-hostility when controlling for the covariate, pretest POMS anger-hostility subscale score. The observed power was low at .24. Effect size (partial eta squared $[\eta_p^2]$) was .04. That is, the independent variable (i.e., creative art therapy intervention) accounts for 4% of the variability in the POMS anger-hostility subscale scores. These results stand in contrast to those of the total final sample (N=39).

**Research Hypothesis Seven**

The seventh research hypothesis stated that there is no significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, vigor-activity, as measured by the POMS vigor-activity subscale when controlling for the covariate, pretest POMS vigor-
activity subscale score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pre-test POMS vigor-activity mood score as the covariate, the seventh research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-11.

Table 4-11. Mean, standard deviation, and F score for vigor-activity

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=20)</td>
<td>22.16</td>
<td>5.92</td>
<td>0.73</td>
<td>0.4</td>
<td>0</td>
<td>0.13</td>
</tr>
<tr>
<td>Control group (n=19)</td>
<td>22.75</td>
<td>5.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Partial eta squared
b Computed using alpha = .05

The result of the analysis indicates that there is no statistically significant difference between treatment and control groups on vigor-activity when controlling for the covariate, pretest POMS vigor-activity subscale scores. However, since the observed power was low at .13, it is inconclusive whether a significant difference exists between treatment and control groups on vigor-activity as measured by the POMS vigor-activity subscale scores. Effect size (partial eta squared $[\eta_p]^2$) was .02. That is, the independent variable (i.e., creative art therapy intervention) accounts for only 2% of the variability in the POMS vigor-activity subscale scores.

**Research Hypothesis Eight**

The eighth research hypothesis stated that there is no significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, fatigue-inertia, as measured by the POMS fatigue-inertia subscale when controlling for the covariate, pretest POMS fatigue-inertia subscale score, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest POMS fatigue-inertia mood score as the covariate, the eighth hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-12.
Table 4-12. Mean, standard deviation, and F score for fatigue-inertia

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta^2_a$</th>
<th>Observed power $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>15.58</td>
<td>5.22</td>
<td>0.47</td>
<td>0.49</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>group (n=20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>17.80</td>
<td>8.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>group (n=19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$a$ Partial eta squared  
$b$ Computed using alpha = .05

The result of the analysis indicates that there is no statistically significant difference between treatment and control groups on Fatigue-Inertia when controlling for the covariate, pretest POMS fatigue-inertia subscale scores. However, since the observed power was low at .10, it is inconclusive whether a significant difference exists between treatment and control groups on the fatigue-inertia as measured by the POMS fatigue-inertia subscale scores. Effect size (partial eta squared $[\eta^2_a]$) was .01. That is, the independent variable (i.e., creative art therapy intervention) accounts for only 1% of the variability in the POMS fatigue-inertia subscale scores.

**Research Hypothesis Nine**

The ninth research hypothesis stated that there is a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, confusion-bewilderment, as measured by the POMS confusion-bewilderment subscale, when controlling for the covariate, pretest POMS confusion-bewilderment subscale scores, in newly diagnosed, Stage I and Stage II breast cancer patients. Using ANCOVA, with the pretest POMS confusion-bewilderment mood score as the covariate, the ninth research hypothesis was tested. The means, standard deviations, and F score are presented in Table 4-13.

Table 4-13. Mean, standard deviation, and F score for confusion-bewilderment

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p (sig)</th>
<th>$\eta^2_a$</th>
<th>Observed power $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>14.25</td>
<td>3.34</td>
<td>6.42</td>
<td>0.02</td>
<td>0.15</td>
<td>0.69</td>
</tr>
<tr>
<td>group (n=20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>16.47</td>
<td>4.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>group (n=19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$a$ Partial eta squared  
$b$ Computed using alpha = .05
The result of the analysis indicates that there is a statistically significant difference between treatment and control groups on confusion-bewilderment when controlling for the covariate, pretest POMS confusion-bewilderment subscale scores. The observed power was moderately high at .69. Effect size (partial eta squared $[\eta_p]^2$) was .15. That is, the independent variable (i.e., creative art therapy intervention) accounts for 15% of the variability in the POMS confusion-bewilderment subscale scores.

In order to illustrate the effects of the two outliers upon this dataset, the results of analysis for preliminary sample (N=41) are presented in Table 4-13.

Table 4-13. Mean, standard deviation, and F score for confusion-bewilderment for preliminary sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>$F$</th>
<th>$p$ (sig)</th>
<th>$\eta_p^2$</th>
<th>Observed power $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group (n=21)</td>
<td>14.66</td>
<td>3.77</td>
<td>1.74</td>
<td>0.2</td>
<td>0</td>
<td>0.25</td>
</tr>
<tr>
<td>Control group (n=20)</td>
<td>16.20</td>
<td>4.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$ Partial eta squared  
$^b$ Computed using alpha = .05

The results of analysis for the preliminary sample indicate that there is no statistically significant difference between treatment and control groups on confusion-bewilderment when controlling for the covariate, pretest POMS confusion-bewilderment subscale score. The observed power was low at .25. Effect size (partial eta squared $[\eta_p]^2$) was .04. That is, the independent variable (i.e., creative art therapy intervention) accounts for 4% of the variability in the POMS confusion-bewilderment subscale scores. These results stand in contrast to those of the total final sample (N=39).

**Clinical Significance**

Information obtained in the exit interview questionnaire was used as a means to determine clinical significance since targeted answers reflected each woman’s subjective evaluation of the individual creative art therapy experience, including perceived
emotional and psychological benefits resulting thereof. Clinical significance was evaluated by reviewing responses from all subjects who received the creative art therapy intervention (including control group of delayed treatment) to a set of three questions in the exit interview questionnaires:

- Did you think it was helpful to participate in creative art therapy?
- Would you recommend this process to someone else with a health problem?
- What was the most important thing that happened to you as a result of participating in the creative art therapy exercises?

A summary of clinical significance outcomes is outlined in Table 4-14.

A total of 41 women participated in this study; 21 (51%) were randomly assigned to the experimental group of creative art therapy and 20 (49%) to the control group of delayed treatment. Only data provided by the final total sample (N=39) is included herein. Within the treatment group, 20 (100%) completed the Exit Interview questionnaires after receiving the creative art therapy intervention with 20 women (100%) stating they thought it was helpful to participate in creative art therapy and none (0%) indicating that it was not helpful. Twenty (100%) of the women also indicated they would recommend the creative art therapy process to someone else with a health problem while none (0%) indicated otherwise. Finally, women in the treatment group who completed exit interview questionnaires offered multiple answers when asked to describe the most important thing that happened to them as a result of participating in the creative art therapy exercises.

Within the control group 13 (68.4%) of the women completed exit interview questionnaires after receiving the creative art therapy intervention with 13 women (100%) stating they thought it was helpful to participate in creative art therapy and none (0%) indicating that it was not helpful. Thirteen (100%) of the women also indicated they
<table>
<thead>
<tr>
<th>Exit interview questions</th>
<th>Treatment group (%)</th>
<th>Control group (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was creative art therapy helpful?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20 (100%)</td>
<td>13 (100%)</td>
<td>33 (100%)</td>
</tr>
<tr>
<td>No</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Would recommend creative art therapy?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20 (100%)</td>
<td>13 (100%)</td>
<td>33 (100%)</td>
</tr>
<tr>
<td>No</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Most important thing happening*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased awareness of self/behaviors</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Helped connect with/express feelings</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Discovered old issues that need attention</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Most important thing happening*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allowed time for self care reflection and quiet</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Relaxed to communicate feelings through art</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Feel less hopeless/happier</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Identified coping and stress management options</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Realized importance of individual counseling</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Creative art therapy powerful and healing</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Saw importance of living in present moment</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Feelings validated</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Realized need to express inner feelings</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Helped process and manage feelings during chemotherapy</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Experienced relief/relaxation</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Expressed inner thoughts</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Increased creativity</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Realized process more important than product</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Most important thing happening*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changed perspective on breast cancer</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>With faith and good will</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>All things are possible</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Realized that god is a major part of my life</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Reframed ways of thinking</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Note. * Multiple responses
would recommend the creative art therapy process to someone else with a health problem and none (0%) indicated they would not. Finally, women in the control group who completed exit interview questionnaires also offered multiple answers when asked to describe the most important thing that happened to them as a result of participating in the creative art therapy exercises. Since 6 of the women (31.6%) in the control group did not complete the delayed creative art therapy treatment offered in this study, exit interview questionnaires were not obtained from them.

**Summary of Findings**

The purpose of this study was to examine, through experimental research, if a semistructured individual art therapy intervention could enhance the emotional expression, spirituality and psychological well-being of newly diagnosed Stage I and Stage II breast cancer patients. Research subjects were assigned to two groups: an experimental group of creative art therapy and a control group of delayed treatment. The two groups were compared using a series of ANCOVA analyses. Paired t-tests were conducted for pre- and postsession changes on emotional expression/states. Power analyses were conducted for research hypotheses found to have no statistical significance to assist with interpretation of results.

ANCOVA analyses indicated that there were no significant differences between groups on emotional expression or spirituality. Paired t-tests indicated that there were significant differences on postsession emotional expression/states for women who received the creative art therapy intervention (including control group of delayed treatment subjects). Furthermore, ANCOVA analyses also indicated there were significant differences between the experimental and control groups on the psychological well-being subscales: depression-dejection, anger-hostility, tension-anxiety, and
confusion-bewilderment. Finally, there were no statistical differences between groups on the psychological well-being subscales of vigor-activity and fatigue-inertia.

Results of clinical significance indicated that all women who received the creative art therapy experience found it helpful and would recommend it to others with a health problem. The women also reported that the most important happenings as a result of participating in the creative art therapy intervention were increased self-awareness, connected with feelings, discovered old issues that need attention, allowed time for self-care, reflection and quiet, emotional expression (both verbally and through the use of art), feel less hopeless, happier, and identified coping and stress management options, among others.
CHAPTER 5
DISCUSSION

This study examined the efficacy of a creative art therapy intervention to enhance emotional expression, spirituality, and psychological well-being of newly diagnosed, Stage I and Stage II breast cancer patients. The experiment consisted of two groups: (a) an experimental group that received an individual creative art therapy intervention designed to enhance emotional expression, spirituality, and psychological well-being and (b) a control group of delayed treatment. Research participants received four individual creative art therapy sessions over a four-week period. Descriptive statistics, paired t-tests, and a series of ANCOVA were used to analyze the data. This chapter will present a brief description of the research sample, discussion of research results, limitations of the study, implications for theory, practice, and future research (including insights from a qualitative journal kept by the researcher throughout this process), and conclusion.

Research Sample

A total of 41 women, newly diagnosed with Stage I or Stage II breast cancer, participated in this study. The total final sample consisted of 39 women. In the study sample, the treatment group consisted of 14 Caucasian women (70.0%), 3 Hispanic women (15.0%), and 3 African American women (15.0%). Within the treatment group, 14 women (70.0%) were diagnosed with Stage I breast cancer and 6 women (30.0%) with Stage II. Also within the treatment group, 9 women (45.0%) had been diagnosed 1 to 3 months prior to enrollment into the study, 6 women (30.0%) 4 to 6 months, one woman (5.0%) 7 to 9 months, and 4 women (20.0%) 10 to 12 months.
In the study sample, the control group consisted of 16 (84.2%) Caucasian women, one (5.3%) Hispanic woman, and one (5.3%) African American woman. Within the control group, 6 women (31.6%) were diagnosed with Stage I breast cancer and 13 women (68.4%) with Stage II. Also within the control group, 5 women (26.3%) had been diagnosed 1 to 3 months prior to enrollment into the study, 5 women (26.3%) 4 to 6 months, 4 women (21.1%) 7 to 9 months, and 5 women (26.3%) 10 to 12 months.

**Discussion of Results**

**Efficacy of Creative Art therapy to Enhance Emotional Expression**

The first research hypothesis stated that there would be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on emotional expression, as measured by the Emotional Approach Coping Scale (EACS), in newly diagnosed Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was no significant difference between the two groups; that is, both groups were equal on emotional expression. Since observed power was low and effect size small, our conclusions are tentative; that is, it would not be reasonable to conclude that there is no significant difference between treatment and control groups on emotional expression. Recall, the effects of the creative art therapy intervention accounted for only 4% of the variability in the EACS scores.

This caveat aside, the fact that both groups were equal on emotional expression raises the issue of the Type C personality profile associated with a breast cancer diagnosis. It is possible that the women in this sample already possess a particular type of emotional approach-coping style, as measured by the EACS emotional expression subscale, that may represent a personality trait rather than an emotional state; that is, the scale measures a tendency to manage emotions in certain ways; it does not measure
changes in emotional expression over time. Our sample size (N=39) may also account for
the lack of differences between the groups in this study. Two other plausible explanations
for this lack of differences may be the small sample size in our study and/or the short
duration (i.e., limited number of sessions) of our treatment intervention. We surmise that
a larger sample may more accurately reflect changes in emotional expression or a
treatment of longer duration would be more effective in enhancing emotional expression
than our brief, four-session intervention was.

Critical reviews of psychosocial interventions with cancer patients reported
average sample sizes of 30 to 60 subjects for educational studies, 16 to 123 for
behavioral training studies, 32 to 308 for individual psychotherapy studies (Fawzy et al.,
1995). As previously reported, the volatility of our sample became apparent during data
analysis, when we discovered two outliers who drastically affected significance levels for
some of the variables in this study. Therefore, our sample size may account for the lack
of significant differences between groups for the construct of emotional expression.
Future research in this area should consider inclusion of a larger sample of breast cancer
patients and a greater number of treatment sessions.

Anecdotally, one of the salient pieces of feedback we received in the exit
interview is that some women wished the number of sessions would be greater than it
was, perhaps reflecting their perception that continued work may have yielded different
outcomes. An investigation of cancer patients receiving psychotherapy also documented
participants stating: “six to eight sessions of psychotherapy had been very helpful,
although some expressed a need for further sessions” (MacCormack et al., 2001, p. 57).
Significant changes in emotional expression may require longer-term clinical
interventions than we were able to provide the sample in this study.
Research studies which examine the relationship between breast cancer patients’ personality and psychological well-being have constructed a profile of women who experience conflicting emotions about self-expression and exhibit a tendency to be reserved, feel anxious, repress hostile or impulsive tendencies and undervalue themselves (Servaes et al., 1999). This profile described both the experimental and control group subjects in our study sample.

Many of the women who participated in this study reported feeling afraid of being a burden to their loved ones; they struggled to meet their responsibilities in the face of low energy levels, fatigue, pain, and emotional turmoil. These statements are similar to descriptions reported by other researchers that the women wish to appear strong and avoid being burdensome to others (Servaes et al., 1999; Watson et al., 1991). What is of special interest is that this wish by the women in this sample of breast cancer patients leads them to exercise control over their emotions. This exercise constitutes a conscious and deliberate act rather than a psychological defense mechanism beyond their control. (Servaes et al., 1999).

Although many of the women wanted to appear strong and self-reliant, they clearly treasured the support they received and expressed gratitude and surprise at the amount of care and concern granted by family, friends, and even coworkers. Some women reported the breast cancer experience helped them to redefine their relationships and gain trust in others. Some of the artwork produced during sessions reflected this newfound connection with significant others.

The second research hypothesis stated that there would be a significant difference between the experimental group’s pre- and postsession scores on negative and positive emotional expression/states as measured by the Emotional Assessment Scale (EAS) in
newly diagnosed Stage I and Stage II breast cancer patients. Results of paired t-tests indicated that there was a significant difference between the experimental group’s pre- and postsession scores; that is, posttest scores showed significant changes in negative and positive emotional expression/states for experimental group subjects tested.

Results of Research Hypothesis 2 stand counter to those of Research Hypothesis 1. Participation in the creative art therapy intervention appears to have helped decrease negative emotional states and enhanced positive ones; that is, the women in this sample were able to process negative emotions during the sessions and reported a decrease in these negative emotional states. Additionally, as evidenced by EAS postsession scores, the women who received the creative art therapy intervention reported enhanced positive emotional states. These shifts in feeling states appear to indicate that they were able to process feelings and express themselves during session in productive ways. Again, the clinicians who conducted these sessions observed and reported open, if at times reluctant, emotional expression in many of the women.

These findings were also supported through the exit interview questionnaires, our measure of clinical significance, where many of the subjects stated the most important thing that happened as a result of participation in creative art therapy related to the enhancement of emotional expression:

- Helped me realize the need to express my feelings
- Helped to validate my feelings
- Helped me connect with and express feelings
- Helped me relax to communicate my feelings through art
- Helped me process and manage my feelings during chemotherapy
- Helped me experience relief and relaxation

We reiterate the plausible explanation that choice of instrumentation may have influenced the outcomes of these research hypotheses where the EACS subscale of emotional expression is a measure of emotional approach coping style and, by definition,
a personality trait, while the EAS represents a measure of shifts in emotional states better able to reflect the women’s process of emotional expression during session. These conclusions are made cautiously since we are mindful of the fact that the EAS was a pre- and postsession self-report instrument and as such, vulnerable to the pretest treatment interaction and social desirability bias. Sample size and treatment duration, as previously stated, may account for the lack of significant differences in emotional expression in the two groups, as measured by the EACS scores.

Our findings for Research Hypotheses 2 concur, qualitatively, with a few studies similar to the present one that utilized creative art therapy as a treatment intervention for cancer patients in general and breast cancer patients, in particular. Dreifuss-Kattan (1990) reported that a multimodal creative art therapy intervention helped enhance cancer patients’ emotional well-being, a construct associated with emotional expression (Stanton & Danoff-Burg, 2002). The women in the present study reported having benefitted from the creative art therapy intervention, in part, by being able to explore and express themselves during sessions, both verbally and through their artwork. One woman found the experience of poetry writing so useful that she reported having purchased a journal where she now writes poetry as a way of processing her feelings. Another subject reported going back to sculpting clay, a soothing activity she had abandoned sometime before her cancer diagnosis.

Similar to Predeger’s (1996) research of group art therapy with breast cancer patients, our creative art therapy intervention helped the women express their feelings and thoughts through art and their ability to express appeared more important than the media used or the final product itself. Some of the subjects also reported relief at having
allowed themselves to open up and fully express difficult emotions (in Predeger’s study, this is reported as the paradoxical sense of losing control in order to regain control).

Also in line with Predeger’s (1996) findings, some of the women in this study reported the creative art therapy intervention helped them to reframe their view and interpretation of the breast cancer experience. It is noteworthy that most of the women chose to interpret the breast cancer experience as an opportunity for growth and transformation, qualifying it as a wake-up call that changed the course of their lives. Finally, many of the subjects in this study expressed a desire to help others also struggling with breast cancer. Like the participants in Predeger’s study, many of the women who participated in this research wanted to reach out to assist others facing the disease. One subject, a medical social worker, stated she is now committed to educate others in prevention and early detection. She is actively sharing her story with other women so they may empower themselves to detect symptoms as early as possible or avoid a breast cancer diagnosis altogether. Another woman has joined forces with a fellow breast cancer survivor and a local oncologist to explore ways of enhancing the support services network of breast cancer patients after they complete oncology treatment. These commitments have become part of these women’s healing journey.

Although focused on music therapy rather than art therapy, G. Aldridge’s (1996) reported findings are also similar to this study’s results. Participation in the creative art therapy intervention, according to exit interviews, was a therapeutic experience of emotional expression and became part of the subjects’ healing process. Many of the women expressed surprise about their ability to access their creative power and the emotional release experienced after each session. Again, through exit interview questionnaires, the women reported increased awareness of self and own behaviors,
increased ability to identify coping and stress management options, and found the
creative art therapy experience powerful and healing. Results of Hypothesis 2 testing,
although unclear and tentatively made, appear promising. Future research utilizing a
stronger design, including a larger sample size and additional treatment sessions, may
help clarify the effects of this intervention on breast cancer patients’ emotional
expression.

**Efficacy of Creative Art Therapy to Enhance Spirituality**

Research Hypothesis 3 stated there would be a significant difference between the
experimental group of creative art therapy and the control group of delayed treatment on
spirituality, as measured by the Expressions of Spirituality Inventory-Revised (ESI-R), in
newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA
tests indicated that there was no significant difference between the two groups; that is,
both groups were equal on spirituality. Since observed power was low and effect size
small, our conclusions are tentative; that is, it would not be reasonable to conclude that
there is no significant difference between treatment and control groups on spirituality.
Recall, the effects of the creative art therapy intervention accounted for only 1% of the
variability in the ESI-R scores.

This finding indicated that the creative art therapy intervention did not enhance
the level of spirituality of this sample of breast cancer patients; it appears many of the
women who chose to participate in this study already considered themselves to be fairly
spiritual and some appeared to be highly religious. This awareness led us to wonder if
individuals who consider themselves to be more spiritual are drawn to the use of
complementary therapies more so than nonspiritual people are. Predisposing factors in
the adoption of complementary therapies warrant further study and clarification. Again,
we reiterate that sample size and treatment duration may have influenced this outcome. Additionally, self-selection may be a key factor playing a role in this study’s results.

Many women in both the experimental and control groups reported that spirituality had played a role in their coping with the breast cancer experience. Session three of this art therapy intervention provided an opportunity to explore the women’s spiritual beliefs and meaning making regarding the breast cancer experience. This exploration yielded important data about many of the women’s sense of connection to a higher being and to a community of like-minded people. Some women reported being “prayed for” by multiple concerned others. They reported feeling held, nurtured, and blessed by significant others and loved ones and described this experience as a spiritual one. This is in line with research that has documented cancer patients’ experience of spiritual connections, in part, through significant relationships in their lives (Chiu, 2000).

Anecdotally, the women in this sample of breast cancer patients tended to feel more empowered through their relationships to God, family, and friends, more optimistic and hopeful about their future, and less anxious or preoccupied about the possibility of cancer recurrence. Specific religious and/or spiritual practices, including prayer, meditation, worship, witnessing, and reading sacred texts became part of their treatment and healing process.

Several subjects described themselves as being nonreligious or nonspiritual. One woman, a lesbian, described a childhood experience of religious wounding which “occurs when religious structures directly hurt or restrict people’s authentic selves” (Fukuyama & Sevig, 1999, p. 92) that led her to renounce her faith. Through the creative art therapy explorations, she uncovered that she is a spiritual person that chooses not to affiliate with
any religious denomination; instead, she seeks connection through nature and the animal world.

Another woman who described herself as an atheist drew her idea of God as a community of diverse people the world over. Although disconnected from any particular spiritual or religious tradition, she reported having discovered that she was more loved and appreciated than she previously thought; she believes her spirituality happens through relationships. She qualified her breast cancer experience as ‘a gift’ because of the lessons it taught her. There is research evidence suggesting that this type of benefit finding and meaning-making attitude results in greater optimism for this population (Antoni et al., 2001).

The creative art therapy intervention in this study did not help enhance subjects’ sense of spiritual connectedness; however, many subjects reported that the breast cancer experience had awakened their desire to reconnect with and/or enhance their spiritual lives. It should be noted that similar to the findings of Greenstein and Breitbart (2000), who conducted qualitative explorations of spirituality and creativity in healing, the creative art therapy intervention in this study enhanced the subjects’ ability to openly express negative and positive emotions, and to explore the existential, spiritual dilemmas of meaning and connectedness raised by their breast cancer diagnoses.

**Efficacy of Creative Art therapy to Enhance Psychological Well-being**

Recall the Profile of Mood States (POMS) scale used to measure the construct of psychological well-being in this study is comprised of six subscales: tension-anxiety, depression-dejection, anger-hostility, vigor-activity, fatigue-inertia, and confusion-bewilderment. Our research sought to examine a creative art therapy intervention’s efficacy to enhance psychological well-being as measured by the POMS subscales.
concerned with the affective component of this construct. We hypothesized that the POMS subscale scores concerned with the physiological aspects of psychological well-being would not show statistical significance. Review of existing literature yielded multiple psycho-oncology research intervention studies that have used the POMS as an outcome measure of psychological well-being. In order to present a comprehensive picture of our results vis-à-vis extant, relevant research, the results of hypotheses testing for this variable will be reported first and detailed discussion will follow.

**Tension-Anxiety**

Research Hypothesis 4 stated that there would be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, tension-anxiety, as measured by the Profile of Mood States (POMS) subscale tension-anxiety, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was a significant difference between the two groups on tension-anxiety. This study’s results indicated that the individual creative art therapy intervention was beneficial by decreasing levels of tension-anxiety in this sample of breast cancer patients.

**Depression-Dejection**

Research Hypothesis 5 stated that there would be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, depression-dejection, as measured by the POMS subscale Depression-Dejection, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was a significant difference between the two groups on depression-dejection. This study’s results indicated
that the individual creative art therapy intervention was beneficial by reducing levels of depression-dejection in this sample of breast cancer patients.

Findings of Research Hypothesis 5, indicating that the individual creative art therapy intervention was beneficial by reducing levels of depression-dejection, are similar to those reported by Cruze (1998), a physician and breast cancer survivor, who experienced a decrease in hopelessness and helplessness, known aspects of depression, and an increased sense of happiness and optimism. Cruze also gained the ability to reframe her cancer experience after completing a creative art (sculpture) experience. Several women in our study reported feeling surprised at their ability to enhance their sense of well-being and to reframe the breast cancer experience and see it as an opportunity for personal transformation and growth; these findings also underscore the valuable effect of benefit finding (Antoni et al., 2001).

**Anger-Hostility**

Research Hypothesis 6 stated that there would be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, anger-hostility, as measured by the POMS subscale anger-hostility, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was a significant difference between the two groups on anger-hostility. This study’s results indicated that the individual creative art therapy intervention was beneficial by reducing levels of anger-hostility in this sample of breast cancer patients.

**Vigor-Activity**

Research Hypothesis 7 stated that there would not be a significant difference between the experimental group of creative art therapy and the control group of delayed
treatment on the psychological well-being subscale, vigor-activity, as measured by the POMS subscale vigor-activity, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was no significant difference between the two groups on vigor-activity, thus confirming this research hypothesis.

Review of the research literature on cancer patients indicated that symptoms frequently reported by this population are fatigue, sleep disturbance, nausea, diminished concentration, and pain; due, in part, to the physically taxing treatment regimens of radiation and/or chemotherapy (Jacobson & Verret, 2001). We hypothesized that many of the women in our sample of breast cancer patients would be experiencing these symptoms as a result of their treatment regimens and, unlike psychosocial interventions developed to potentially help increase the psychological well-being aspect of vigor-activity (e.g., guided imagery and relaxation therapy; Zahourek, 1988), the creative art therapy intervention used in this study, an affective and cognitive exercise, would not influence the subjects’ scores on this construct.

**Fatigue-Inertia**

Research Hypothesis 8 stated that there would not be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, fatigue-inertia, as measured by the POMS subscale fatigue-inertia, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was no significant difference between the two groups on fatigue-inertia, thus confirming this research hypothesis.

Similar to Research Hypothesis 7, here, we also hypothesized that some women in our sample of breast cancer patients would be experiencing side effects from their oncology regimens and the creative art therapy intervention used in this study would not
help decrease subjects’ scores of the fatigue-inertia subscale of psychological well-being. We found one research study that utilized an art therapy intervention: the dance therapy intervention named Authentic Movement and documented increased scores on the vigor-activity subscale of psychological well-being and decreased scores on the fatigue-inertia subscale after treatment (Dibbell-Hope, 2000). The author noted that the areas where improvement was reported related to the physical body (vigor-activity and fatigue-inertia) and hypothesized that Authentic Movement might have contributed to a sense of physical well-being in the women. Her statistical findings stood in contrast to her qualitative findings. According to the author, although no statistical significance was found in any of the other POMS subscales, the women reported small improvements in overall psychological well-being. The contrasting quantitative and qualitative findings in her study underscore the difficulty in reconciling subjective and objective data, accurately interpreting results, and generalizing to the population at hand. We found no other studies utilizing art therapy interventions that specifically explored effect of interventions upon these physiological aspects of psychological well-being.

**Confusion-Bewilderment**

Research Hypothesis 9 stated that there would be a significant difference between the experimental group of creative art therapy and the control group of delayed treatment on the psychological well-being subscale, Confusion-bewilderment, as measured by the POMS subscale confusion-bewilderment, in newly diagnosed, Stage I and Stage II breast cancer patients. Results of the ANCOVA tests indicated that there was a significant difference between the two groups on confusion-bewilderment. This study’s results indicated that the individual creative art therapy intervention was beneficial by reducing levels of confusion-bewilderment in this sample of breast cancer patients.
The observed power for statistical analyses of posttest affective subscales of psychological well-being ranged from moderate (tension-anxiety = .62; confusion-bewilderment = .69; anger-hostility = .75) to high (depression-dejection = .84), thus allowing us to conclude that the creative art therapy intervention enhanced psychological well-being of Stage I and Stage II breast cancer patients in this sample.

Our research results concur with those that utilized group psychotherapy interventions (including supportive-expressive group therapy) on Stage I and Stage II breast cancer patients and reported decreases in tension-anxiety, depression-dejection, and anger-hostility scores posttreatment (Antoni et al., 2001; Fawzy et al., 1990; Hosaka et al., 2000; Montazeri et al., 2000; Spiegel et al., 1999). Fawzy et al. (1990) also reported decreased levels of confusion-bewilderment and improved vigor-activity. The latter study’s group intervention included a relaxation therapy and stress management component that may account for the improvements on vigor-activity. Mixed results have been reported for women with metastatic disease where some studies indicate psychosocial group interventions were successful in reducing psychological distress (i.e., enhancing psychological well-being; Goodwin et al., 2001; Spiegel et al., 1989; Spiegel et al., 1981) while others were not (Edmonds et al., 1999).

This research study sought to address, in part, the potential role of a creative art therapy intervention to enhance psychological well-being by decreasing negatively correlated subscales for this construct (i.e., tension-anxiety, depression-dejection, anger-hostility, and confusion-bewilderment). Results of these hypotheses testing indicated lower levels of tension-anxiety, depression-dejection, anger-hostility, and confusion-bewilderment after receipt of the individual creative art therapy intervention when controlling for pretest scores on each subscale. Results seem to indicate that the creative
art therapy intervention was beneficial to this sample of breast cancer patients in this regard. Finally, it appears that women who were able to express their feelings openly had less psychological distress (i.e., increased psychological well-being after treatment ended). These findings concur with previous research exploring this association in breast cancer patients (Goodwin et al., 2001).

**Clinical Significance**

Results of clinical significance provided anecdotal evidence of the perceived benefits from participating in this experience. As previously stated, all women who received the individual creative art therapy found it useful and would recommend it to others with health problems. Reported benefits were congruent with some of our statistical findings in that the therapy was perceived to enhance emotional expression/states and reduce negative affective aspects of psychological well-being.

Critical review of psychosocial interventions in oncology care indicated that “individual psychotherapy is a long-established method used to ease the distress and disruption that accompany the diagnosis of cancer [adding that] support, compassion, and empathy form the cornerstone of successful individual psychotherapy” (Fawzy et al., 1995, p. 104). We acknowledge that the perceived beneficial aspects of our creative art therapy intervention may have resulted from the therapeutic stance inherent in individual psychotherapy practices rather than from particular theoretical and applied techniques utilized in this study.

**Limitations of the Study**

There were a number of limitations in this study that compromised our ability to generalize its findings to the population of Stage I and Stage II breast cancer patients.
These included the research design, reactive arrangements, subject self-selection, novelty effect, conceptualization of variables, and instrumentation. They are discussed herein.

**Research Design**

This experimental study had a pretest/posttest, control group design with random assignment. The utilization of a pretest, a control group, and random assignment helped to control for known sources of internal validity (Gay, 1996); however, exposure to the POMS at pretest may represent “a possible interaction between the pretest and the treatment which may make the results generalizable only to other pretested groups” (p. 366). This interaction is especially likely with experimental studies of short duration, such as the present one (i.e., 4 weeks). Of particular concern and perhaps the greatest limitation of the present study was its small sample size. Small effect sizes and low power may have seriously compromised our ability to detect changes between groups and/or generalize documented outcomes to the population of Stage I and Stage II breast cancer patients. We are optimistic that our results show promise and a stronger design (including larger sample and longer treatment duration) in future research would help improve this limitation.

Although a pretest/posttest, control group design with random assignment helps to control for the maturation threat, it is noteworthy that several of the women reported critical events during the art therapy process that may have influenced treatment outcomes; including two significant outliers that were eliminated from the dataset. These events included, among others, financial problems, homelessness, a breast cancer diagnosis of one subjects’ mother and another subject’s daughter, hospitalization due to severe side effects of chemotherapy, unexpected deaths in the family, and marital discord.
Reactive Arrangements

The women who participated in this study (both experimental and control group subjects) had awareness of this fact, which may have produced a Hawthorne effect. Therefore, caution should be used when interpreting results to mean that the individual creative art therapy intervention was solely responsible for documented improvements in emotional expression states or psychological well-being and its relevant sub-scales.

Subject Self-selection

The women who participated in this study were volunteers who self-selected to become involved in a creative art therapy intervention. As previously stated, researchers have estimated 50% to 80% of all cancer patients choose to receive complementary therapies; within this group, women who choose to participate in mind-body interventions, such as the present study provided, tend to be between 30 and 50 years of age, better educated, wealthier, and Caucasian (Boon et al., 1999; Richardson et al., 1998). Although our sample of Stage I and Stage II breast cancer patients appears relatively diverse and representative of the area where the study was conducted, there may be other psychological or emotional characteristics that may account for their self-selection, participation, completion, and ultimately, for the documented outcomes of the study. Since the women self-selected for participation, we cannot know what the characteristics of women who chose not to participate are. Future research should make a concerted effort to reach out to these reluctant participants so that we may understand what keeps some women from choosing to participate in potentially beneficial studies.

Novelty Effect

A total of 41 women participated in this study, 39 were included in the final total sample, with only four of them having had any prior experience with creative art therapy.
interventions. The fact that this type of treatment represented a new, theretofore unknown experience may have posed a threat to external validity through the novelty effect, which refers to “increased interest, motivation, or participation on the part of subjects simply because they are doing something different. In other words [the] treatment may [have been] effective because it [was something] different,” not because it was psychologically valuable (Gay, 1996, p. 357).

**Conceptualization of Variables and Instrumentation**

The main variable of this study was emotional expression. This construct was conceptualized through a functional theory of emotions, which holds that emotions are relational and contextual and cannot be understood alone or as intra-psychic processes (Campos et al., 1994). To this end, the creative art therapy intervention was designed to facilitate emotional expression related to the breast cancer experience and assist breast cancer patients manage it, however subjectively conceptualized and understood.

The Emotional Approach Coping Scale (EACS), Emotional Expression Sub-Scale used in this research has been extensively employed with samples of breast cancer patients (Stanton & Danoff-Burg, 2002; Stanton, Danoff-Burg, et al., 2000). In this study, it appears that both groups were equal in emotional expression, thus disproving research hypothesis one. However, the Emotional Assessment Scale (EAS) used to document shifts in emotional expression pre- and postsession captured changes in the women’s positive and negative emotional states. These differences lead one to question what each scale is truly measuring: Is the EACS measuring inherent or learned characteristics (i.e., traits) and/or coping styles related to management of emotions, in general, while the EAS captures shifts in emotional states? For purposes of this research, in retrospect, it appears that the EAS may have been more accurate in capturing changes in emotional states,
indirectly depicting facilitation or enhancement of emotional expression occurring during individual creative art therapy sessions.

Spirituality, as conceptualized in this study, represents a contextual and relational construct of an experience that guides human interactions and helps enhance their sense of relatedness to all that is, including the idea of God or a higher being (Griffith & Griffith, 2002). The complexity inherent in the ideas of spirituality and religion has been broadly explored in the literature (Cook & Hetrick, 2001; Thoresen, 1999) and became evident in this research study. Many of the women self-described as highly spiritual or deeply religious while a few did not. Explorations into their spiritual lives led to some discoveries about the meaning of spirituality and religion and the differences between them.

Our choice of instruments to measure spirituality came from MacDonald (2001) who developed a scale based on factor analysis of more than 70 other measures attempting to capture this construct. Our conceptualization of spirituality as a contextual and relational experience may not have been adequately captured by the ESI-R. This also led us to hypothesize that spirituality is also a trait rather than a state that may be influenced through psychological interventions. The creative art therapy intervention in this study did not enhance levels of spirituality in the women; most already considered themselves to be highly spiritual or religious. Are spiritual or religious individuals drawn to explore complementary therapies more so than their non-religious counterparts? This is an interesting area of inquiry that may warrant further scrutiny.

All instruments used in this study were self-report. Research results may have been influenced by the social desirability bias inherent in the use of self-report measures (Cone & Foster, 1993). The women may have made unconscious or conscious efforts to
appear doing and feeling better than they actually were at pre- and post-session testing for all who received the treatment and/or at post-test after four weeks of treatment or wait (delayed treatment) time.

**Implications**

**Theory**

A premise of this study was that creative art therapy interventions could help clients, in part, reconnect with themselves holistically (in mind, body, emotions, and spirit) and make meaning of their struggle with the breast cancer experience. In recursive fashion, engaging in the creative process could facilitate emotional expression, improve psychological well-being, and nurture personal spirituality and the optimal experience of flow. Our experimentally controlled study sought to explore these relationships. Subscribing to a positive psychology framework, we deliberately focused on the women’s personal strengths and available resources for growth and transformation.

Mindful of our theoretical framework, we contend characteristics of the Type C personality profile was anecdotally exemplified in the sample of breast cancer patients in this study. The absence of differences in emotional expression between control and treatment group subjects also led us to speculate about our study subjects’ possible preexisting tendency to suppress difficult emotions. This controversial theory has received some support (Fernandez-Ballesteros et al., 1998; Greer & Watson, 1985; Lilja et al., 1998; Watson, 1991) and been cautiously minimized (Bleiker & van der Ploeg, 1999) by researchers in the field of psycho-oncology. While victim blaming remains a potential problem in considering this theory, ongoing exploration is clearly warranted, especially in light of the potential deleterious effects of emotional suppression and repression on psychological well-being.
The creative art therapy intervention in this study attempted to provide an opportunity for focused exploration of the breast cancer experience emphasizing meaning-making, increased body awareness through a guided meditation experience, enhanced spiritual awareness through a spirituality beliefs inventory, and spontaneous creativity through a structured poetry-writing exercise. These interventions aimed to present opportunity for creative engagement in autotelic flow experiences (Csikszentmihalyi, 1990a). Many of the women reported looking forward to the sessions as a way to carve out personal time and allow for self-exploration and expression. According to self-report, the creative art therapy intervention facilitated these feelings in the women. These findings are congruent with the very few studies we found that reported similar beneficial effects of various forms of creative art therapy with breast cancer patients (G. Aldridge, 1996; Cruze, 1998; Dibbell-Hope, 2000; Predeger, 1996).

On the other hand, it should also be noted that for some of the subjects, participating in the art exercises was a difficult task. They required encouragement and prompting to become engaged in the creative process. Two of the research subjects commented that the creative art therapy experience goes beyond the creation of art and this should be emphasized to potential participants. These women felt that the term “art therapy” may represent a deterrent for some women who do not feel artistic or creative and are not familiar with the therapy process itself. The art therapy experience may make them self-conscious and nervous, thus rendering the process frustrating and ineffectual. This reality challenges our concept of flow as delineated herein. We discovered it is important to acknowledge that flow experiences appear to be subjective representations of individual interests and talents. Therefore, facilitating an autotelic flow experience
may not be realistic, possible, or even relevant for breast cancer patients who prefer verbal expression alone or creative expression that does not involve art media.

Results of this research offer a mixed picture regarding the construct of emotional expression. As stated previously, it is unclear whether instrumentation became a factor in our ability to measure emotional expression/states and determine whether the creative art therapy intervention enhanced the women’s ability to emote and helped improve overall psychological well-being. Results of Research Hypothesis 2 indicated that for this sample of breast cancer patients the creative art therapy process facilitated expression of negative and positive emotions. Based on our findings, we believe the constructs of emotional expression and spirituality, including conceptualizations and correlations among them, warrant further scrutiny and clarification.

**Practice**

This study and its creative art therapy intervention were designed to help women with breast cancer enhance their emotional expression, spirituality, and psychological well-being. Although the individual creative art therapy sessions were semi-structured in nature, many of the women who participated uncovered personal issues during sessions that would appear not to be directly related to the breast cancer experience. Some women felt that their development of breast cancer may be related to these unresolved psychological and emotional issues (i.e., childhood history of sexual or physical abuse, neglect, abandonment by one or both parents) and ensuing emotional distress, sometimes unexplored or expressed for years thence, per subjects’ self-report. As salient, unresolved concerns, they received some attention during sessions and women who expressed a desire to receive ongoing assistance with these unresolved conflicts were referred to appropriate treatment providers in their communities.
These women stated they planned to seek ongoing psychotherapy after the creative art therapy intervention was completed. As previously stated, some of them spontaneously speculated if the cancer diagnosis could be related to these unresolved emotional issues. The literature has reported mixed findings regarding the relationship between emotional repression and breast cancer etiology with some studies concluding none existed (O’Donnell, Fisher, Irvine, Rickard, & McConaghy, 2000), others supporting some connection (Fernandez-Ballesteros et al., 1998), and some stating data are inconclusive, to date (Bleiker et al., 1995). Further study on the relationships among emotional expression, emotional repression, and breast cancer incidence is clearly warranted.

A salient theme of this study was the women’s sense of uncertainty about life after treatment. Of the 39 women in the total final sample, 14 were diagnosed 6 to 12 months prior to beginning the creative art therapy intervention. One of the main concerns revolved around the lack of direction and support they felt is available to women once the oncology treatment regimen ends. The prospect of cancer recurrence, insurance and financial concerns, transformed interpersonal relationships, changes in employment status, and a sudden thrust into menopause as a side effect of treatment were named as ripple effects resulting from the intense period after discovery of the lump, diagnosis, surgery, and treatments. Many of these women felt that the world expected them to pick up where they left off and resume their normal lives; they were not ready. According to some of them, supportive services for the posttreatment period and beyond are needed and lacking.

Most of the women who participated in this study attended treatment and doctor’s appointments accompanied by significant others. In the course of meeting the subjects
who chose to participate, their husbands and partners had occasion to speak to the study’s researchers. Their stories warrant mention here. Today, a woman diagnosed with breast cancer has a plethora of resources both in the professionals who treat them, and in print and electronic media, that she can draw from to uncover facts and information about the breast cancer diagnosis, repercussions, treatment, and prognosis; information to assist their significant others is not as prevalent.

At least three husbands or partners of research subjects asked this researcher not to conclude the study without speaking to them. They felt a need to underscore the importance of providing information and assistance to those supporting the breast cancer patients in their process. These individuals wished to be (and were) a steadfast source of encouragement and comfort to their wives and partners; however, they felt their own psychological and emotional struggles and the issues arising from the breast cancer diagnosis of their loved ones were a burden they, alone, carried. These people urged us to include an admonition for the health care community, including mental health and social work practitioners, to develop supportive programs for caregivers, family, and friends of breast cancer patients. They wish to be heard as well. Many of the women who participated in this study expressed concern for their loved ones’ well-being. They felt that husbands, partners, family, and friends lacked the degree and depth of support to process their experience of walking alongside the breast cancer patient in her journey.

Throughout the sessions and in the exit interview questionnaires, several issues emerged regarding health care providers’ service delivery. A fair number of the women who participated in this study shared the same oncology team of practitioners. Many commented on the perceived competent, comprehensive, compassionate, and caring treatment provided while they were not only in acute physical and emotional distress but
confused and uncertain about their choices and options. They reported feeling satisfied
with the quality of care received and expressed appreciation for their physicians’
approach to healthcare practices.

Some of the women offered some suggestions for all health care providers to
consider. They include things they would have liked to see and receive during the
treatment process and beyond. Predominant comments are listed herein:

• Take a more holistic approach to treatment: Physicians need to recognize the power
  of the mind and its connection to health; offer advice on nutrition, exercise,
counseling, and complementary therapies.
• Encourage women to participate in complementary therapy studies.
• Provide more information about breast cancer, treatment options, and prognosis.
• Encourage more posttreatment care of self.
• Increase communication with the patient and among treatment providers to minimize
  confusion.
• Allow time for the patient to talk about her feelings; be more sensitive to her
  emotional state during visits.
• Take care to make the post-surgical space warmer and more healing.
• Recognize the sense of grief that accompanies a mastectomy (loss of a breast) and
  provide assistance as warranted.
• Include a mental health professional in the treatment team of health care providers.

Predeger (1996), who conducted a creative art therapy intervention for a group of
women based on systemic, holistic, feminist principles, concluded that the voices of
personal and collective healing, as experienced by the women through their artistic
creative process, must be heard and that health care practitioners and researchers “would
benefit by collaborating with women in a nonhierarchical participative model where
dialogue of experiences and possibilities are uncovered” (p. 57). Many of the women in
this study echoed this admonition. Through the exit interview questionnaires, the women voiced their frustration with some oncology health care practitioners’ dismissal or minimization of emotional and psychological issues resulting from the breast cancer diagnosis and ensuing treatment process.

After having experienced the individual creative art therapy intervention, many of the women expressed a desire to see this type of treatment offered as part of the oncology regimen for breast cancer patients. Particularly noteworthy is the fact that even women who had completed all their oncology treatment prior to joining the study (usually, those 6 to 12 months since diagnosis), expressed a desire to receive ongoing support posttreatment, in order to deal with the psychological issues arising from fears of recurrence and other repercussions of the cancer experience. One of our research subjects summarized it best when she posed these questions during session: “What am I supposed to do after treatment is over? Forget that I had cancer and it may come back? Pick up the pieces and get on with my life? When treatment ends, that’s when all these thoughts and feelings come up. . . . And where do I go to deal with these?” These questions deserve answers and as clinicians, we are in a position to help uncover them.

**Future Research**

The process of psychotherapy is client-focused. As scholar practitioners, we aim to conduct, in part, rigorously controlled outcome studies that could help enhance our knowledge and understanding of specific treatment strategies upon relevant psychological variables. Holding a dual role within the process of professional engagement, a conflict of identities may emerge; counselor or researcher? As a therapist, attention to the clients’ needs is paramount. As researcher, one seeks adherence to protocols and procedures in order to maintain the integrity of the research process, to
keep it intact and valid. In session, while therapeutically engaged, we attend to whatever emerges. The circumstances proved no different when dealing with the breast cancer patients in this sample.

One eager subject, for example, signed up for the study in order to explore, not her dual breast cancer diagnosis and treatment (each breast had a lump discovered within a 3-month period), but the unresolved feelings surrounding the unexpected death of her 29 year old son the month between diagnoses. Much of the sessions’ time revolved around her profound sense of loss and grief. That she also endured a double mastectomy, chemotherapy, and radiation treatments during that time paled in comparison to the sudden death of her only child.

Another control group subject (one of the outliers dropped from the study’s preliminary sample) encountered a crisis about 2 weeks into the delayed treatment wait period. She phoned her designated counselor and tearfully disclosed she had had an upsetting argument with her husband and bemoaned his lack of support and attention during this difficult time in her life. The counselor listened to her and encouraged her to seek supportive significant others to help her in this time of need. She was assured that in 2-weeks’ time, we could delve into whatever issues of concern she had. At posttest, she scored significantly higher on psychological well-being, showing improvement from pretest scores. We hypothesized that this brief intervention over the phone may have elicited enough of a response for her to report improvement in mood and well-being. This incident raises ethical concerns regarding attention to clients’ needs versus adherence to research protocols. This challenging area warrants ongoing discourse among scholar practitioners in counselor education.
Many of the subjects who participated in this study reported ascribing to a holistic view of self and healing. They felt responsible for attending to all aspects of their lives and this, in part, motivated their participation in this study. It appears that this sample of breast cancer patients, as part of their attempts to manage the cancer diagnosis, opted to engage in complementary therapies as adjunctive to the oncology treatment regimen (e.g., changes in nutrition, herbal supplements, acupuncture). Predisposing factors that lead a woman to choose (or not) complementary therapies warrant further study especially as research evidence grows supporting the beneficial outcomes of such interventions.

Along this line, a potential confound for this study’s results is the women’s use of other complementary therapies. Some of the women reported taking a very proactive approach to their treatment and opting to receive alternative and complementary therapies as adjunctive to the oncology regimen. It is plausible that exposure to these treatments may account for some of the enhancements in emotional expression and improvements in the psychological well-being subscales in this sample of breast cancer patients. Future research should take care to control for these factors in order to minimize this confound.

The present study utilized the Emotional Approach Coping Scale’s (EACS) subscale of emotional expression. Our findings indicated that women who allow themselves to express emotions openly reported higher levels of psychological well-being and lower levels of tension-anxiety, depression-dejection, anger-hostility, and confusion-bewilderment. These results are similar to the findings of Stanton, Danoff-Burg, et al. (2000) who explored the relationship between emotionally expressive coping and psychological adjustment to cancer and found it was “associated with decreased [levels
of overall] distress” (p. 84) among other variables. In contrast, the researchers reported that women who utilized emotional processing experienced increased distress. Our study did not include the emotional processing subscale of the EACS. Future research should consider the utilization of both subscales of the EACS in order to obtain a clearer picture of this construct and its manifestation in this population.

The present study would have been greatly improved through the administration of additional, delayed post-tests, given sometime after treatment concluded. This is an ideal follow-up to help assess sustained gains over time and to minimize the interaction of time of measurement and treatment effect(s), a threat to external validity (Gay, 1996).

Finally, it should be noted that a common suggestion made by the women during the exit interview questionnaire was that they wish the intervention had offered more sessions over time, and that they included patients with all types of cancers. Some women wished their significant others could be included in this process so they, too, could receive support.

**Qualitative Journal**

Keeping a narrative journal was an attempt to document insights gained through this research process. The writings included significant events and milestones as well as difficulties encountered. It was a challenge to separate life and work; sometimes my musings took me places that had nothing to do with this study. I found it impossible to compartmentalize pieces of my life; to me, this speaks volumes about the holistic nature of human beings and the overlapping circles we inhabit.

Recruiting subjects for a research study can be a challenging task, recruiting breast cancer patients proved to be a daunting exercise in humility and patience. Many of the women who contemplated participating in the research process were facing
overwhelming, unfamiliar, and frightening treatments while attempting to come to terms with an uncertain future. To have the opportunity to provide a modicum of support in this process was truly humbling. Completing this study has given me a new appreciation for my chosen profession, my health, and my life’s blessings.

The challenges facing breast cancer patients are multifaceted and can become overpowering, even when the diagnosis is early stage and prognosis appears good. Conducting research with this population requires flexibility and understanding to accommodate for the unexpected or lingering side effects, scheduled surgeries, radiation or infusion therapies, and changes in medical appointments or treatment protocols. Research literature supports this need based on the complexities of a cancer diagnosis, treatment, and ramifications on a woman’s life (Jacobson & Verret, 2001).

I have learned that research asks for parsimony and objectivity, and reiterated that clinical work requires focused engagement and creativity. One of the most difficult tasks faced was to receive phone calls from sad, anxious, eager women who wanted to be a part of the study but did not meet the necessary criteria; they were diagnosed Stage III or IV, had been diagnosed over 12 months ago, or lived too far away to commute into the designated treatment offices. Listening to their stories, albeit briefly, gave me a glimpse of the resilient spirit dwelling within them. It was disheartening to tell them they could not participate. All I could do was refer to the American Cancer Society’s network of support groups and encourage them to seek psychological assistance, if deemed necessary. I made referrals to specialized practitioners a couple of instances, for women who appeared depressed or were facing overwhelming, multiple stressors. In retrospect, I would probably separate my researcher and clinician roles in this process. Holding true to each was my greatest challenge.
Research can be a demanding and lonely endeavor; having the professional and personal support of loved ones and fellow scholar practitioners made this process an exciting, fruitful, and ultimately fulfilling journey. Were it not for the steadfast generosity and support of my friends, family, and colleagues, this scholarly endeavor, Sisyphean at times, would not have been as rewarding.

**Conclusion**

This chapter presented a discussion of research results and implications for theory, practice, and future research derived from an experimental study of the efficacy of a creative art therapy intervention to enhance emotional expression, spirituality, and psychological well-being of newly diagnosed, Stage I and Stage II breast cancer patients.

Through this study, we were able to determine that a brief, semi-structured, creative art therapy intervention was not effective in enhancing the emotional approach coping style of emotional expression or level of spirituality of newly diagnosed, Stage I and Stage II breast cancer patients in this sample. However, we were able to determine that participation in the creative art therapy intervention appears to have helped decrease negative emotional states and enhanced positive ones of experimental group subjects in this sample. These shifts in feeling states appear to indicate that the women were able to process feelings and express themselves during session in productive ways, a finding that is congruent with the study’s clinicians’ anecdotal observations.

Additionally, the creative art therapy intervention appears to have enhanced psychological well-being of women in this sample by decreasing tension-anxiety, depression-dejection, anger-hostility, and confusion-bewilderment; affective aspects of this construct. Finally, as hypothesized, the intervention did not effect changes in the physiological aspects of psychological well-being: vigor-activity and fatigue-inertia.
This study provided support for the Type C personality theory that suggests women diagnosed with breast cancer tend to suppress negative emotions, feel protective of family members, and are afraid to become a burden to them. We were also able to confirm that enhancement of emotional expression appears to improve affective aspects of psychological well-being by reducing negative emotions. Furthermore, evidence of clinical significance underscored some of the quantitative findings in this study, suggesting that the creative art therapy intervention was beneficial by helping the women enhance emotional expression (helped connect with/express feelings; relaxed to communicate feelings through art; realized need to express inner feelings; helped me process and manage feelings) and psychological well-being (feel less hopeless/happier; experienced relief/relaxation).

Clinical significance results also supported extant research that concluded benefit finding in the cancer experience helps women feel more optimistic and hopeful about their future (Antoni et al., 2001). A noteworthy clinical finding is that some of the women felt they benefitted from the experience because they carved time out for self-care, reflection, and quiet; saw the importance of living in the moment; and discovered that with faith and good will, all things are possible. Interestingly, these represent aspects of mindfulness, a well-established and increasingly popular spiritual practice (Lesser, 1999). Finally, some of the women were able to uncover issues that needed attention and expressed a desire to continue treatment while others increased awareness of self and own behaviors, and were able to identify coping and stress management options. Although not relevant variables in our study, these are decidedly beneficial outcomes of any therapeutic intervention.
APPENDIX A
EXIT INTERVIEW FORM

Subject #: ___________________________  Date: ___________________________

Did you think it was helpful to participate in creative art therapy?  □ No  □ Yes

What was the most important thing that happened to you as a result of participating in the creative art therapy exercises?

__________________________________________________________________________

Would you recommend this process to someone else with a health problem?  □ No  □ Yes

What would you like your health care providers to do for you that they have not done?

__________________________________________________________________________

Given what you have learned about yourself over the last four weeks, what would you like to see health care providers asking or doing for women with breast cancer?

__________________________________________________________________________

Is there anything that you would like the investigators of this study to know that we have not asked?

__________________________________________________________________________

Do you have any suggestions that would make the creative art therapy experience you had better for someone else?

__________________________________________________________________________

Thank you for participating in our study.
APPENDIX B
RELEASE OF INFORMATION

CONSENT FOR EXCHANGE AND / OR RELEASE OF INFORMATION

☐ By signing below, I ____________________________, give my permission for Ana Puig, M.A. to receive information from my primary oncology physician:

Name: _______________________________________
Address: _____________________________________
                                             _____________________________________
                                             _____________________________________
                                             _____________________________________
Telephone: _____________________________________

For the following purposes:
To verify the cancer diagnosis for use in the study assessing the effects of the complementary, mind-body intervention of art therapy

To verify type of treatment for women with Stage I and Stage II breast cancer

☐ By signing below, I ____________________________, give my permission for ____________________________, to exchange and / or release information with / to:

Ana Puig, MA, LMHC, MH # 6992
  Phone: 352-514-0306
  (352) 392-0731, ext. 228
  Email: anapuig@ufl.edu

The undersigned is aware that this consent can be withdrawn at any time.

Name ___________________________ Date ______

Ana Puig, MA, LMHC License Mental Health Counselor (MH 6992) Date ______
APPENDIX C
RESEARCH ANNOUNCEMENT FLYER
Have you been diagnosed with Stage I or Stage II Breast Cancer in the last 12 months?

We invite you to become involved in a research study about the benefits of the complementary, mind-body intervention of art therapy for women with breast cancer. Complementary therapies are used alongside traditional medical treatment in order to help the healing process.

Participants in this study will receive complementary, mind-body art therapy once weekly for one month. These complementary therapy sessions will be provided at no charge to you. If you participate in this study, you will receive specific instructions from your designated counselor. You will be asked to fill out some questionnaires at the beginning and at the end of the study. We hope you will benefit from the complementary mind-body art therapy experience and you will also be helping other women with breast cancer in their journey!

INTERESTED?
Please contact: Ana Puig, MA, LMHC
Call: (352) 514-0306 or (352) 392-0731, ext. 228
APPENDIX D
INFORMED CONSENT

IRB# 331-2003

Informed Consent to Participate in Research and Authorization for Collection, Use, and Disclosure of Protected Health Information

You are being asked to take part in a research study. This form provides you with information about the study and seeks your authorization for the collection, use and disclosure of your protected health information necessary for the study. The Principal Investigator (the person in charge of this research) or a representative of the Principal Investigator will also describe this study to you and answer all of your questions. Before you decide whether or not to take part, read the information below and ask questions about anything you do not understand. Your participation is entirely voluntary.

1. Name of Participant ("Study Subject"):

2. Title of Research Study

The Success of Art Therapy to Enhance Emotional Expression, Spirituality, and Psychological Well being of Newly Diagnosed Stage I and Stage II, Breast Cancer Patients

3. Principal Investigator and Telephone Number(s)

Ana Puig, M.A.
(352) 514-0306
(352) 392-0731, ext. 228
4. **Source of Funding or Other Material Support**

5. **What is the purpose of this research study?**

You have been asked to participate in this study because you have Stage I or Stage II breast cancer, you are a female, and you have received the breast cancer diagnosis in the last twelve (12) months. The purpose of this research is to study how the complementary, mind-body intervention of creative art therapy affects women with early stage breast cancer.

Complementary therapies are used alongside traditional treatment in order to help your healing process. Art therapy is a form of complementary, mind-body therapy and involves the use of drawing, painting or writing to explore any thoughts and feelings you may have about your current situation. Complementary therapies may help you cope with your illness.

6. **What will be done if you take part in this research study?**

Complementary, mind-body art therapy is an additional source of help for you during your healing process. If you decide to participate in this study, you will be randomly assigned (much like the flip of a coin either to the first art therapy group (which starts the week after you give consent) or the second art therapy group (which starts four weeks later). The research study lasts six or ten weeks (depending on which group you are assigned to).

You will receive art therapy sessions once a week for four weeks. Each session will last sixty minutes, except for the last session, which will last ninety minutes. During each session you will receive complementary, mind-body art therapy, using art supplies that we will provide, to draw, paint, or write about your experience with breast cancer.

During the first week of participation, you will answer an interview, a questionnaire and sign an informed consent and a release of information for your primary care physician. The release of information gives us permission to ask your doctor what stage breast cancer you were diagnosed with and when the diagnosis was made. The questionnaire is to find out how you are feeling before you start the creative art therapy sessions. Your assigned therapist will schedule the first session with you, after we have received the completed informed consent and questionnaires.

If you are in the first treatment group, you will begin the art therapy sessions the week after you complete the questionnaires, informed consent, and release of information. If you are in the second treatment group, your art therapy sessions will begin four weeks after you complete the questionnaires, informed consent, and release of information.

If you are in the first treatment group, during the last week of participation in the study, you will answer some questionnaires and a written exit interview. The
questionnaires are to find out how you are feeling (emotionally, mentally, and spiritually) after the creative art therapy sessions. The exit interview is to find out what you thought of the art therapy experience. The last session includes the final art therapy experience, which will be completed prior to answering the questionnaires and the exit interview. The session, questionnaires, and exit interview will last approximately 90 minutes.

If you are in the second treatment group, during the last week of participation in the study, you will answer an exit interview. The interview is to find out what you thought of the art therapy experience. The last session includes the final art therapy experience, which will be completed prior to answering the exit interview. The session and exit interview will last approximately 90 minutes.

7. What are the possible discomforts and risks?

There are no anticipated health risks or discomforts. You do not have to complete the questionnaires.

Throughout the study, the researchers will notify you of new information that may become available and might affect your decision to remain in the study.

If you wish to discuss the information above or any discomforts you may experience, you may ask questions now or call the Principal Investigator or contact persons listed on the front page of this form.

8a. What are the possible benefits to you?

There is no direct benefit to you from answering the questionnaires.

It is possible that by participating in the complementary, mind-body art therapy program, you may be able to experience emotional relief and to cope more effectively with cancer.

8b. What are the possible benefits to others?

It is possible that by completing the complementary, mind-body art therapy program and answering the questionnaires, the information gained from this study will help others understand the benefits of complementary, mind-body art therapy and its effect on people.

9. If you choose to take part in this research study, will it cost you anything?

There are no known financial risks involved from participating in this study.

10. Will you receive compensation for taking part in this research study?

You will not receive compensation for participating in this study.
11. What if you are injured because of the study?

If you experience an injury that is directly caused by this study, only professional consultative care that you receive at the University of Florida Health Science Center will be provided without charge. However, hospital expenses will have to be paid by you or your insurance provider. No other compensation is offered.

12. What other options or treatments are available if you do not want to be in this study?

You may choose to use complementary, mind-body therapies in the usual way.

Participation in this research study is completely voluntary. You are free to refuse to participate in this study, and your refusal will not affect current or future participation in studies or in your medical care in any way.

13a. Can you withdraw from this research study?

You are free to withdraw your consent and to stop participating in this research study at any time. If you do withdraw your consent, there will be no penalty, and you will not lose any benefits you are entitled to.

If you decide to withdraw your consent to participate in this research study for any reason, you should contact Ana Puig at (352) 514-0306 or (352) 392-0731, ext. 228.

If you have any questions regarding your rights as a research subject, you may phone the Institutional Review Board (IRB) office at (352) 846-1494.

13b. If you withdraw, can information about you still be used and/or collected?

If you withdraw, the information that we obtained about you will not be used, as the information will be incomplete.

13c. Can the Principal Investigator withdraw you from this research study?

You may be withdrawn from the study without your consent for the following reasons:

1. If you do not have Stage I or Stage II breast cancer.
2. If you were notified that you had breast cancer more than twelve (12) months ago.
3. If you do not complete all four Creative Art Therapy interventions and questionnaires.

14. How will your privacy and the confidentiality of your protected health information be protected?

If you participate in this research, your protected health information will be collected, used, and disclosed under the terms specified in sections 15 – 24 below.
15. If you agree to participate in this research study, what protected health information about you may be collected, used, and disclosed to others?

To determine your eligibility for the study and as part of your participation in the study, your protected health information that is obtained from you, from review of your past, current or future health records, from procedures such as physical examinations, x-rays, blood or urine tests or other procedures, from your response to any study treatments you receive, from your study visits and phone calls, and any other study related health information, may be collected, used and disclosed to others. More specifically, the following information may be collected, used, and disclosed to others:

Information as to what stage of breast cancer you have will be obtained from your primary physician or from your health record.

The date that you were notified of your breast cancer diagnosis will be obtained from your primary physician or from your health record.

The information from the questionnaires that you complete, as part of the study, will be used to determine the effectiveness of the complementary, mind-body art therapy. The results will be disclosed to others, but your name or any other identifying information will not be disclosed.

16. For what study-related purposes will your protected health information be collected, used and disclosed to others?

Your protected health information may be collected, used and disclosed to others to find out your eligibility for, to carry out, and to evaluate the results of the research study. More specifically, your protected health information may be collected, used and disclosed for the following study-related purpose(s):

- to determine if you have Stage I or Stage II breast cancer and when you received the diagnosis

- to determine how the use of complementary, mind-body art therapy affects emotional expression, spirituality, and psychological well-being of women with Stage I and Stage II breast cancer.

17. Who will be authorized to collect, use and disclose to others your protected health information?

Your protected health information may be collected, used, and disclosed to others by:

- the study principal investigator Ana Puig
- other professionals at the University of Florida and Shands Hospital who provide study-related treatment or procedures
- the University of Florida Institutional Review Board
- Other investigators involved in the study, namely Linda K. Goodwin
18. Once collected or used, whom may your protected health information be disclosed to?

Your protected health information may be given to:

- US and foreign governmental agencies who are responsible for overseeing research, such as the Food and Drug Administration, the Department of Health and Human Services, and the Office of Human Research Protections
- Government agencies who are responsible for overseeing public health concerns such as the Centers for Disease Control and Federal, State and local health departments

19. If you agree to participate in this research, how long will your protected health information be collected, used and disclosed?

The information will be collected until the study ends. The information will be used and disclosed for 10 years.

20. Why are you being asked to authorize the collection, use and disclosure to others of your protected health information?

Under a new Federal Law, researchers cannot collect, use or disclose any of your protected health information for research unless you allow them to by signing this consent and authorization.

21. Are you required to sign this consent, and authorization, and allow the researchers to collect use and disclose (give) to others of your protected health information?

No, and your refusal to sign will not affect your treatment, payment, enrollment, or eligibility for any benefits outside this research study. However, you cannot participate in this research unless you allow the collection, use and disclosure of your protected health information by signing this consent/authorization.

22. Can you review or copy your protected health information collected, used, or disclosed under this authorization?

You have the right to review and copy your protected health information. However, you will not be allowed to do so until after the study is finished.

23. Is there a risk that your protected health information could be given to others beyond your authorization?

Yes. There is a risk that information received by authorized persons could be given to others beyond your authorization and not covered by the law.
24. Can you revoke (cancel) your authorization for collection, use and disclosure of your protected health information?

Yes. You can revoke your authorization at any time before, during or after your participation in the research. If you revoke, no new information will be collected about you. However, information that was already collected may be still be used and disclosed to others if the researchers have relied on it to complete and protect the validity of the research. You can revoke by giving a written request with your signature on it to the Principal Investigator.

25. How will the researcher(s) benefit from your being in this study?

In general, presenting research results helps the career of a scientist. Therefore, the Principal Investigator may benefit if the results of this study are presented at scientific meetings or in scientific journals.

26. Signatures

As a representative of this study, I have explained to the participant the purpose, the procedures, the possible benefits, and the risks of this research study; the alternatives to being in the study; and how the participant’s protected health information will be collected used and disclosed:

[Signature of Person Obtaining Consent and Authorization] [Date]

You have been informed about this study’s purpose, procedures, possible benefits, and risks; the alternatives to being in the study; and how your protected health information will be collected, used and disclosed. You have received a copy of this Form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time.

You voluntarily agree to participate in this study. You hereby authorize the collection, use and disclosure of your protected health information as described in sections 15 - 24 above. By signing this form, you are not waiving any of your legal rights.

[Signature of Person Consenting and Authorizing] [Date]
APPENDIX E
INTRODUCTION TO STUDY LETTER—EXPERIMENTAL GROUP

Dear __________________:  

Thank you for volunteering to participate in our study. As was discussed when you were initially contacted, this study will consist of complementary, mind-body therapies in addition to your regular medical care. You will participate in these additional therapies once a week, for one month. You will receive a total of four complementary art therapy sessions. The first three sessions will last approximately 60 minutes. The last session will last approximately 90 minutes. We hope that you find this therapy to be beneficial in many ways.

Enclosed, you will find an envelope that contains a release of information form, an informed consent form, and two questionnaires for you to complete. Please read the instructions carefully, sign the release of information and the informed consent, fill out the questionnaires and mail them to us in the self-addressed, stamped envelope enclosed. Feel free to contact us if you have any questions about the release of information, the informed consent, or the questionnaires. The contact information can be found below.

After we receive the completed package, we will call to set up your first appointment and give you directions to our office. If you have any problems you may contact Ana Puig by phone at 352-514-0306 or e-mail: anapuig@ufl.edu. Again, thank you for participating in our study.

Sincerely,

Ana Puig, MA, LMHC
Gainesville, FL
352-514-0306
352-392-0731, ext. 228
anapuig@ufl.edu

Enc: Envelope with Forms & Questionnaires
Self-addressed Stamped Envelope
APPENDIX F
DEMOGRAPHIC QUESTIONNAIRE

Date: ___________________________ Subject # _____________
Name: __________________________ Age: ____________
Address: ____________________________________________

Ethnicity: □ African American □ Asian American □ Caucasian
□ Latin American □ Native American □ Other

Education: □ Did not complete High School □ High School □ Other _________
□ Associate of Arts or Science Degree □ Bachelor of Arts or Science Degree
□ Master of Arts or Science Degree □ Doctor of Philosophy Degree
□ Other - If Other, please specify: ____________________________

Are you working outside the home? □ No □ Yes  If Yes: □ Full-time □ Part-time

Who referred you to this study? _______________________________
Type of Breast Cancer: ______________________________________

□ Stage One □ Stage Two

When did you find out you had breast cancer? __________________________

Have you ever had any experience with art therapy? □ No □ Yes
If Yes, Why, What and When? _______________________________________

If Yes, did you enjoy it? □ No □ Yes
If Yes, do you think it was helpful? □ No □ Yes

What treatment have you received for your breast cancer? _______________________

Is there anything that you think is important for the investigator of this study to know about you? (Please answer this question on the other side.)
APPENDIX G
INTRODUCTION TO STUDY LETTER—CONTROL GROUP

Dear ________________________________________:

Thank you for volunteering to participate in our study. As was discussed when you were initially contacted, this study will consist of complementary, mind-body therapies in addition to your regular medical care. You will begin participating in these additional therapies four weeks after we receive this initial package from you. The intervention will consist of one art therapy session per week for one month. The first three sessions will last approximately 60 minutes. The last session will last approximately 90 minutes. We hope that you find this treatment helpful and that it may be beneficial to you in many ways.

Enclosed, you will find an envelope that contains a release of information form, an informed consent form, and two questionnaires for you to complete. Please read the instructions, release of information, and informed consent carefully, sign the release of information and informed consent forms, fill out the questionnaires and mail them to us in the self-addressed, stamped envelope enclosed. Feel free to contact us if you have any questions about the release of information, the informed consent or the questionnaires. The contact information can be found below.

An investigator will contact you in four weeks to set up an appointment to discuss the next phase of this research process. Again, thank you for participating in our study.

Sincerely,

Ana Puig, MA, LMHC
Gainesville, FL
352-514-0306
352-392-0731, ext. 228
anapuig@ufl.edu

Enc: Envelope with Forms & Questionnaire
Self-addressed Stamped Envelope
Dear ____________________.

Enclosed is the last envelope containing the final instructions, questionnaires, and a return self-addressed stamped envelope so you can mail the materials to Ana Puig, according to the instructions provided.

We hope that you will benefit from the complementary, mind-body therapy you will soon begin receiving. Thank you for being a part of this study and for your willingness to help us to help you and others like you. We look forward to meeting with you. We will call you for your first appointment as soon as we receive the completed package. We hope that the findings of our study will help other women with breast cancer in their process of healing and coping with this illness. Thank you.

Sincerely,

Ana Puig
352-514-0306
352-392-0731, ext. 228
anapuig@ufl.edu

Enc: Envelope with Forms & Questionnaires
    Self-addressed Stamped Envelope
APPENDIX I
POSTTEST INSTRUCTIONS—CONTROL GROUP

Please complete the items in this envelope in the order listed below. Thank you.

CONTENTS OF ENVELOPE:
1. Questionnaire One
2. Questionnaire Two
3. Questionnaire Three
4. Return Addressed Envelope to Ana Puig

INSTRUCTIONS:
1. Please complete Questionnaire One, Two, and Three.
2. Place the completed Questionnaires (One, Two, and Three) in the envelope addressed to Ana Puig.
3. Mail the envelope to Ana Puig.

THANK YOU.
APPENDIX J
POSTTEST COVER LETTER—EXPERIMENTAL GROUP

Dear ____________________,

Enclosed is the last envelope containing the final instructions, questionnaires, exit interview form, and a return self-addressed stamped envelope so you can mail the materials to Ana Puig, according to the instructions provided.

We hope that you have benefited from the complementary, mind-body creative art therapy you have received. We also hope that the findings of our study will help other women with breast cancer in their process of healing and coping with this illness. Thank you for being a part of this study and for your willingness to help us to help you and others like you. We wish you the best in mind, body, and spirit.

Sincerely,

Ana Puig
352-514-0306
352-392-0731, ext. 228
anapuig@ufl.edu

Enc: Envelope with Forms & Questionnaires
Self-addressed Stamped Envelope
APPENDIX K
POSTTEST INSTRUCTIONS—EXPERIMENTAL GROUP

Please complete the items in this envelope in the order listed below. Thank you.

CONTENTS OF ENVELOPE:
1. Questionnaire One
2. Questionnaire Two
3. Questionnaire Three
4. Exit Interview
5. Return Addressed Envelope to Ana Puig

INSTRUCTIONS:
1. Please complete Questionnaire One, Two, and Three.
2. Please complete Exit Interview
3. Place the completed Questionnaires (One, Two, and Three) and the Exit Interview in the envelope addressed to Ana Puig.
4. Mail the envelope to Ana Puig.

THANK YOU.
APPENDIX L
ART THERAPY INTERVENTIONS

Session One: Facing Breast Cancer
Exploring the Breast Cancer Diagnosis

Questions:

1. What does having breast cancer mean to you?
2. Can you describe how you view your struggle with breast cancer today?
3. What feelings have you experienced since the breast cancer diagnosis?
4. What do you do when these feelings come up?
5. What have you done as a way of coping, since you were diagnosed?

Directive: “Would you draw or paint the breast cancer as you experience it in your life today?”

Follow-up Questions:

1. Could you explain what you have made and what that means to you?
2. How do you feel about what you have just made?
3. If this drawing could speak, what would it tell you?
4. If you could answer it, what would you say?

Session Two: Exploring Feelings

Directive: Ask the subject to sit quietly for a few minutes, to go inside and scan her body for clues about her feelings of fear, anger, sadness, discomfort, or pain.

Use the following narrative to assist with this process (Adapted from Lesser, 1999):

“Sit comfortably and quietly. Let your body rest easily. Breath gently. Let go of your thoughts, past and future, memories and plans. Just be present. Begin to let your own precious body reveal the places that most need healing. Allow the physical or emotional pains, tension, disease, or wounds to show themselves. Bring a careful and kind attention to these painful places. Slowly and carefully feel their physical energy. Notice what is deep inside them, the pulsations, throbbing, tension, sadness, needles, fear, contraction, anger, aching that make up what we call pain. Allow these to be felt fully, to be held in a receptive and kind attention. Then be aware of the surrounding area of your body. If there is a contraction and holding, notice this gently. Breathe softly and let it open. Then in the same
way, be aware of any aversion or resistance in your mind. Notice the thoughts and fears that accompany the pain you are exploring: “It will never go away.” “I can’t stand it.” “I don’t deserve this.” “It is too hard.” Let these thoughts rest in your kind attention for a while. Then, gently return to your physical body. Let your awareness be deeper and more allowing now. Again, feel the layers of the place of pain, and allow each layer that opens to move, to intensify, or dissolve in its own time. Bring your attention to the pain as if you were gently comforting a child, holding it all in a loving and soothing attention. Breathe softly into it, accepting all that is present with a healing kindness. And when you are ready, open your eyes and return to this room… “

Directive: Allow a few moments for the subject to return to the room. Using any of the art materials she chooses, ask the subject: “Would you draw or paint whatever predominant feeling(s) is/are present (FEAR, ANGER, SADNESS) inside you right now?”

Follow-up Questions:

1. Could you explain what you have made and what it means to you?
2. What do the colors mean to you?
3. What do the shapes mean to you?
4. How do you feel about what you have just made?
5. How do you feel right now?
6. What do you normally do when you feel this way?

Session Three: Exploring Spirituality

The Belief Art Therapy Assessment (Adapted from Horovitz-Darby, 1994).

Questions:

1. What is your religious affiliation?
2. Have there ever been any changes in your religious affiliation?
3. When did these changes take place (if applicable) and what were the circumstances that caused this change?
4. What is the level of current involvement with your church, temple, or faith community?
5. What is your relationship with your pastor, minister, rabbi, shaman, guru, or priest (as applicable)?
6. Do you have any religious/cultural practices that you find particularly meaningful?
7. Do you have a relationship with God? If yes, what kind of relationship is it?
8. What brings special strength or meaning to your life?
9. Is God involved in your problems? How?
10. Have you ever had a feeling of forgiveness from God?

Directive: “Many people have a belief in God; if you also have a belief in God, would you draw or paint what God means to you?”
If the subject does not believe in God or is agnostic, ask that they delineate, through drawing or painting, whatever they believe in or simply delineate their disbelief.

Follow-up Questions:

1. Could you explain what you have made and what that means to you?
2. How do you feel about what you have just made?
3. Have you ever witnessed or seen God (or, your beliefs / disbeliefs) as you have delineated in your artwork?

Directive: “Some people believe that there is an opposite of God. If you believe there is an opposite force, could you also draw or paint the meaning of that?”

Follow up with the same questions; substitute words, as applicable.

Session Four: Making Poetry

Directive: Ask the subject to answer the following questions
(Adapted from Crockett, 2000):

If you were a ________ what would you be?

season
precious stone
sound
musical instrument
bird
fairy tale character
human era or period
body/type of water
time of day
weather
childhood game
article of clothing
magical/mystical creature
tool
feeling
tree
scent
geographical feature
movement
bedding surface
art medium
body part
flavor
What is the color of your spirit?

Directive: Ask the subject to write TWO POEMS using at least nine (9) items from her list; one about LIFE and one about DEATH.

Follow-up Questions:

1. Would you please read the (LIFE/DEATH) poem out loud?
2. What does the poem say about your beliefs of (LIFE/DEATH)?
3. How did you feel when you wrote it?
4. How do you feel now?
5. Did you learn something new about your self by writing these poems?
REFERENCES


Ana Isabel Puig Figueroa was born in the city of Santurce on March 30, 1963, and raised in the valley township of Utuado in the beautiful island of Puerto Rico. In 1980, upon graduating from high school, she left her home to pursue higher education in the United States. She received her Bachelor of Arts degree in sociology from the University of Southwestern Louisiana in Lafayette. She worked in a variety of mental health agencies and psychiatric hospitals while pursuing her Master of Arts degree in counselor education from the University of South Florida in Tampa.

Her search for a professional identity has taken her on a journey through the states of Louisiana, Florida, and Oregon, and for a short while to the South American city of Caracas, Venezuela. Her clinical experiences inspired a desire to become a counselor educator, thus expanding the breadth of her clinical practice and applications. She arrived in Gainesville, Florida, where her family lives, committed to earning a doctorate in counselor education and mental health counseling.

Ana is a National Certified Counselor®, and a Licensed Mental Health Counselor and Qualified Mental Health Counseling Supervisor in the state of Florida. She was an active member of the education committee of the Spirituality and Health Center (SHC) at the University of Florida until her graduation in 2004 and holds the first certificate in spirituality and health studies issued by the SHC. Ana’s areas of specialty include the application of creativity and spirituality to mental health counseling practice and research. She is particularly interested in holistic approaches to health and healthcare, especially in
the treatment of breast cancer patients. She hopes to contribute to counselor education through her ongoing work as a scholar practitioner in the field. Ana is happily partnered with Rebecca Anne Fields, and they share a feline daughter named Maya.
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Peter A. D. Sherrard, Chair
Associate Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Ellen S. Amatea
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Mary Fukuyama
Clinical Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Anne Seraphine
Assistant Professor of Educational Psychology
This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 2004

[Signature]
Dean, College of Education

[Signature]
Dean, Graduate School