

**THE RELATIONSHIP OF RACE AND BODY
IMAGE WITH COPING AND SELF-
EFFICACY IN COPING FOR
WOMEN DIAGNOSED WITH
BREAST CANCER**

By

VANESSA I. PIKLER

Bachelor of Arts

University of California, Riverside

Riverside, California

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Thesis Approved:



Thesis Advisor







Dean of the Graduate College

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CHAPTER ONE

INTRODUCTION

By 2010, breast cancer is expected to be the leading cause of death among women worldwide and will

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CHAPTER ONE
INTRODUCTION

Breast cancer is a common cause of death among women worldwide and will account for 43,900 deaths in the United States in 1998 (Miller & Sledge, 1999). One out of every 8 women can expect to develop breast cancer in her lifetime. In fact, 180,300 individuals were diagnosed with breast cancer in the United States in 1998 (Horton, 1998). The steady increase in breast cancer in white women and the decreased survival rates in African-American, Latina, Native-American, and Asian-American women (and the poor) make breast cancer a pressing public health concern (Long, 1993). The racial disparity with regards to incidence and survival rates of breast cancer is particularly disturbing when one recognizes that racial differences in cancer mortality continues to grow despite the economic and professional growth of these groups (Powell, 1994).

Researchers have explored a number of issues related to breast cancer for women including the psychological implications of mastectomy (Mock, 1993; Penman, Bloom, Fotopoulos, Cook, Holland, Gates, Flamer, Murawski, Ross, Brandt, Muenz, & Pee, 1987; Ray 1977), comparisons in the psychological impact of breast conserving surgeries and mastectomies (Margolis & Goodman, 1983; Mock, 1993; Moyer, 1997), coping strategies and adjustment (Shapiro, 1997; Stanton & Snider, 1993), quality of life issues for breast cancer patients (Tao & Ganz, 1998), and body image for this population (Carver, Pozo-Kaderman, Price, Noriega, Harris, Derhagopian, Robinson, Moffatt, 1997; Cumming, Lees, Hundleby, Nabholtz, Kieren, Jenkins, Wentzel, Handman, & Cumming, 1997; Mock, 1993). Although there have been some studies conducted to explore issues

for women of color diagnosed with breast cancer, including religiosity (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Bourjaily, 1998; Mathews, Lannin, & Mitchell, 1994; Mickley & Soeken, 1993), health beliefs (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Chavez, Hubbell, McMullin, Martinez, & Mishra, 1995; Fulton, Rakowski, & Jones, 1995; Hubbell, Chavez, Mishra & Valdez, 1996), and use of screening methods (Buelow, Zimmer, Mellor, Sax, 1998; Bundek, Marks, & Richardson, 1993; Giulano, Papenfuss, de Guernsey, de Zapein, Tilousi, & Nuvayestewa, 1998; McPhee, Stewart, Brock, Bird, Jenkins, Pham, 1997; Moormier, 1996; Saint-Germain & Longman, 1993; Zapka, Stoddard, Barth, Costanza, Mas, 1989), few studies have explored body image (Kagawa-Singer, 1997) or coping in women of color extensively. Of interest, no studies have compared women of color and white women diagnosed with breast cancer on the use of coping strategies and self-efficacy in coping. In addition, the relationship between body image and coping in this population is unknown.

The Impact of Mastectomy On Women With Breast Cancer

Modified radical mastectomies were the standard surgical procedures for women with breast cancer until as recently as five years ago when clinical trials indicated that breast conservative treatment (i.e. BCT, lumpectomy or segmentectomy plus radiation therapy) had equivalent results (Morris, Morris, Wilson, White, Steinberg, Okunieff, Arriagada, Le, Villejuif-Cedex, Blichert-Toft, Dongen, 1997). Even though surgeons and patients now have the option of either procedure, the performance of breast conserving surgery is underutilized in some parts of the United States (Morris et al., 1997).

The research exploring the psychological impact of mastectomies on breast cancer

patients has resulted in mixed findings. Some researchers have found that a significant number of women experience psychosocial morbidity (Feather and Wainstock, 1989; Ray, 1977) while others have found mastectomy treatment does not lead to a decrease in psychosocial function (Penman et al., 1987). Moyer (1997) found that the differences between lumpectomy and mastectomy patients were too small to indicate that one type of surgery produced more severe psychological effects than the other, although breast conserving surgery was found to produce slightly better adjustment than mastectomies (Moyer, 1997).

Having a mastectomy (or other breast surgeries) can also have an impact on body image perceptions. "In a society where a woman's breasts are valued as symbols of sexuality and nurturance, the possibility of mastectomy or any physical change of the breast is perceived as an assault on the woman's self image and thus self esteem. Of mastectomized women, 22-33% may develop severe mood disturbances or depression up to one to two years after mastectomy and 30% develop sexual difficulties (Powell, 1994, p. 135)."

Body image

Body image is defined as "...the 'physical self' and includes attitudes and perceptions regarding one's physical appearance, state of health, skills, and sexuality (Mock, 1993, p. 154)." The type of procedure performed on a breast cancer patient continues to be of some controversy in terms of better adjustment and perception of body image, however the consensus is that the loss of a body part which is significantly related to feminine identity (such as the breast) results in negative alteration of body image and

self-concept in women (Mock, 1993). Therefore, "...conservative surgery is associated with the preservation of body image in comparison to mastectomy (Hopwood, 1992, p. 276)." Penman et al. (1987) found that the surgical procedure performed did not with a significantly effect perception of body image; however, women suffering from low self-image prior to their diagnosis continued to feel negatively toward their body images postmastectomy compared to women with high self-image. ve subjects reported

Women who are diagnosed in later stages of disease are not candidates for breast conserving surgeries, nor, in most cases, breast reconstruction. This has implications for the amelioration of disfigurement for women of ethnic diversity, in particular, given that they are typically diagnosed during the later stages of breast cancer (Moormier, 1996). The alternative, albeit a poor one, to breast reconstruction is the wearing of breast prosthesis. However, Reaby and Hort (1994) found that some women who wear prostheses considered it a demeaning reminder of their "deformity." In fact, less than ten years ago, there were no other colors available for women who wear prostheses other than white (M.Cook, personal communication, April 20, 1999).

Coping For Women With Breast Cancer

The literature on coping with cancer concedes that the diagnosis of cancer heralds a series of frightening events and can be a harrowing experience (Cunningham, Lockwood, & Cunnigham, 1991). Common psychosocial effects of breast cancer on the lives of women and men have emerged and include emotional distress, disruption of daily activity, decrease in body image perceptions, and consequential intimacy problems (Asken, 1975; Meyerowiz, 1983).

served Stanton and Snider (1993) studied adjustment to breast cancer by looking at cognitive coping skills. They found that cognitive and behavioral avoidance of cancer issues was maladaptive and produced more negative effects than optimism paired with a belief in personal control over one's situation (Stanton & Snider, 1993). Chen (1996) also found that participants who actively confronted their illness showed better psychological health, as did Shapiro et al. (1997) who stated, "...confrontive subjects reported with breast significantly fewer psychological and physical symptoms than avoidant-confrontive and avoidant-resigned subjects" (Shapiro, 1997, p.156). Emotional expressiveness has also been associated with better adjustment to breast cancer (Classen et al., 1996).

Another coping strategy identified in the literature was cognitive avoidance or minimization (Meyerowitz, 1983). This concept has also been termed "denial", however it is not the same as literally denying the diagnosis or surgery. Instead, it is a minimization of a patient's awareness of stressful information about cancer or the minimization of upsetting emotional responses (Buddeberg, 1996; Meyerowitz, 1983). Buddeberg (1996) found that denial affected survival rates, more specifically, those who used a fighting spirit or denial strategy were more likely to be alive five years or more after diagnosis compared to those who used stoic acceptance or helplessness/hopelessness strategies (variables from the Mental Adjustment to Cancer Scale; Watson, Greer, Young, Inayat, Burgess, & Robertson, 1988).

Perceived social support has been identified in the literature as another coping strategy for individuals diagnosed with breast cancer (Bloom, 1982; Ford, 1996; Meyerowitz, 1983). Meyerowitz (1983) found that moderate amounts of social support

served to decrease distress, while high or low amounts were detrimental to individuals with breast cancer. Bloom's (1982) study on social support and adjustment to breast cancer found that family cohesiveness and social contact had direct effects on coping and indirect effects on three measures of adjustment, indicating that "...coping mediates the relationship between social support and adjustment" (Bloom, 1982, p.1338).

Finally, self-efficacy and perceived sense of personal control in dealing with breast cancer were measures of coping studied by several researchers (Buddeberg, Sieber, Wolf, Landolt-Ritter, Richter, & Steiner, 1996; Cunningham, Lockwood, & Cunningham, 1991; Ell, 1986; Meyerowitz, 1983; Penman et al., 1987; Taylor et al., 1984). In general results indicated that people with higher self-efficacy (the perceived ability to enact coping strategies) and more perceived control over situations, were associated with reduced fear, increased level of adjustment to cancer, and increased quality of life and mood compared to people with lower self-efficacy and perceived control (Cunningham, Lockwood, and Cunningham, 1991).

Race and Breast Cancer

"...Ethnicity and poverty influence women's experiences with a chronic illness such as cancer" (Ashing-Giwa & Ganz, 1997, p. 34). Most studies to date, however, have used participants who were primarily White, with small percentages of Women of Color in their samples (Powell, 1994). Thus, little is known about the ways these women cope with breast cancer nor how they perceive their bodies after mastectomies. Research that has been conducted does point to racial differences in survival rates for women with breast cancer and other cancers (Caplan, Helzslower, Shapiro, Freedman, Coates, Edwards,

1995; Delgado, Lin, & Coffey, 1995; Gordon, Crowe, Brumberg, Berger, 1992; Howard, Penchansky, & Brown, 1998; Sanchez, 1996; Sondik, 1994). For example, African Americans are 34% more likely to die of cancer than are Whites and more than two times more likely to die of cancer than are Asian/Pacific Islanders, American Indians, and Hispanics (Cancer Statistics 1999). Racial differences have also been found in women of color and their use of mammography procedures and self breast examinations. For instance, "Hispanic women are less likely than are African Americans or whites to report prior breast or cervical cancer screening" (Skaer, Robison, Scclar, & Harding, 1996, p. 339). Differential use of screening practices and selection of surgical options such as breast reconstruction may be related to beliefs about medical care and services. One possible explanation for these differences is that women of color, particularly those who are less acculturated into the mainstream culture, tend to have a deep mistrust for the medical establishment as well as a perception of low self-efficacy in controlling their cancer and treatment (Ashing-Giwa & Ganz, 1997).

Health beliefs of differing racial and ethnic groups have been studied in the literature (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Chavez et al., 1995; Chavez, Mishra, & Valdez, 1996; Fulton, Rakowski, & Jones, 1995; Mathews, Lannin, & Mitchell, 1994; Powell, 1994). Research findings indicated that a person's culture effected health beliefs, which in turn, effected health behavior. For instance, Baider & Sarrell (1983) found that "Oriental" women in Israel (those from the Middle East, North Africa, and Muslim countries) believed breast cancer was a punishment for their sins and therefore uncontrollable. Ashing-Giwa & Ganz (1997) and Mathews et al., (1994)

studied African-American women and found that less educated and lower income individuals viewed cancer as a death sentence and therefore delayed seeking treatment (thereby resulting in later stages of disease and poorer prognoses at the time of original diagnoses). Conversely, "Western" women (those from Europe and America) subscribed to more scientific explanations for breast cancer and therefore felt more capable of exerting control over behavior that impacts their bodies and their health such as nutrition and mammography (Baider & Sarrell, 1983).

Ironically, though women of color are more likely to die of breast cancer than white women, little is known about racial differences in coping strategies, self-efficacy in coping, and body image perceptions (Bourjally, 1998). A limited number of researchers have examined coping in women of color, but primarily in terms of religiousness (Ashing-Giwa & Ganz, 1997; Bourjally, 1998; Mathews et al., 1994; and Mickley & Soeken 1993). Religion was found to be used as a coping strategy significantly more among African-American and Hispanic/Latina women compared to White women. Bourjally (1998) with Mickley & Soeken (1993) found that religiousness was associated with coping with cancer. There were suggestions of cultural differences between Hispanic women and Anglo women in the way they used religiosity, "...the only significant difference between the two groups was in intrinsic religiousness, with Hispanic women scoring higher..." (Mickley & Soeken, 1993, p.1176).

In summary, in our culture, the breast is a symbol of femininity, sexuality and nurturance. The prevalence of breast cancer is high, occurring in one out of every eight women. There are racial differences in incidence and survival rates in that the incidence is

higher in white women, though survival rates are lower for women of color. Studies have included primarily white, middle class women, and have focused on the impact of mastectomies, comparisons of lumpectomies vs. mastectomies in regards to body image, coping strategies, and quality of life for breast cancer patients. The few studies that have included women of color have focused primarily on incidence and survival, screening use, health beliefs, and religiousness in coping. This study was an attempt to address the paucity in the literature for women of color, as few studies have focused on the ways these women cope and how they perceive their bodies following breast cancer treatments.

Purpose of the Study

The purpose of this study was to determine the impact of race and body image perceptions on coping strategies and self-efficacy in coping for women diagnosed with breast cancer. In addition, this study explored the impact of race upon the way women perceived their bodies after a breast has been removed due to cancer, and/or other treatments and surgeries have been prescribed for breast cancer treatment.

Significance of the Study

As mentioned previously, there is a gap in the literature regarding women of color diagnosed with breast cancer and their body image perceptions and use of coping strategies. Little is known about the relationship of race and body image perceptions with coping strategies and self-efficacy in coping for women diagnosed with breast cancer. Recent research has included more diverse samples, but not enough to report findings comparing women of color to white women or to study women of color separately. The statistics regarding incidence and survival indicate that although African-American, Latina,

Asian-American, and Native American women have a lower incidence of cancer compared to white women, their survival rates are markedly decreased than that of White women and the gap is widening (Pierce, 1997). The significance of this study, therefore, is to address and examine the differences between White women and Women of Color diagnosed with breast cancer with regards to coping and self-efficacy in coping in order to begin to meet the needs of all women and provide better cultural and ethnic awareness in the area of breast health.

Definition of Terms

Breast conserving therapy: (BCT) also known as a lumpectomy, tumorectomy, excisional biopsy, or segmentectomy. The surgeon removes the tumor and some normal breast tissue around it, as well as the axillary lymph nodes.

Mastectomy: the surgical removal of the entire breast.

Stage of disease: the extent to which the tumor has spread to regional lymph nodes or other organs of the body.

Stage 0: No evidence of tumor.

Stage 1: Tumor is 2cm or less in greatest dimension.

Stage 2: Tumor is more than 2cm but not more than 5cm in greatest dimension.

Stage 3: Tumor is more than 5cm in greatest dimension.

Stage 4: Tumor of any size with direct extension to a) the chest wall or b) the skin such as Edema (ulceration of the skin) of the breast or satellite skin nodules to the same breast. Or, a condition known as Inflammatory Carcinoma which is

characterized by diffuse brawny induration of the skin of the breast, usually without an underlying palpable mass. This clinical presentation is due to tumor embolization of dermal lymphatics. Inflammatory Breast Carcinoma is always Stage 4 (American Cancer Society, 1999).

Note, the above definitions of stage did not include the full staging information that a patient would be given such as lymph node involvement and metastases. Full staging would include this information and is numbered the same way the stages above are numbered, with ascending numbers indicating more progression of disease.

Breast reconstruction: surgical restitution of a new breast, usually using tissue from other parts of the body such as the back or abdomen, or, with the use of artificial implants.

Body image: the perception of what a person's body is like and how much it matters to a person; the mental picture or the "physical self" and includes attitudes and perceptions regarding one's physical appearance, state of health, skills, and sexuality. Body image will be measured by the Measure of Body Apperception (MBA).

Coping: any belief or behavior that deals with some aspect of a situation evaluated by an individual to be taxing or exceeding his/her emotional or cognitive resources; a process whereby strategies are employed in the hopes to avoid the negative consequences (e.g. depression, stress) (Bandura, 1982). Coping was measured by the Ways of Coping Questionnaire (WOCQ). The subscales of coping developed by Folkman & Lazarus (1986) on the WOCQ are:

Confrontive Coping: describes aggressive efforts to alter the situation and

suggests some degree of hostility and risk taking.

Distancing: describes cognitive efforts to detach oneself and to minimize the significance of the situation.

Self-Controlling: describes efforts to regulate one's feelings and actions.

Seeking Social Support: describes efforts to seek informational support, tangible support, and emotional support.

Accepting Responsibility: acknowledges one's own role in the problem with a concomitant theme of trying to put things right.

Escape-Avoidance: describes wishful thinking and behavioral efforts to escape or avoid the problem. Items on this scale contrast with those on the Distancing scale, which suggest detachment.

Planful Problem Solving: describes problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem.

Positive Reappraisal: describes efforts to create positive meaning by focusing on personal growth. Has a religious dimension.

Self-efficacy in coping: the perceived ability to enact coping strategies; to perceive control over situations. Self-efficacy in coping was measured by the Cancer Behavior Inventory (CBI).

Race: an identification that is obtained by genetic heritage and/or cultural heritage. The experience of living in the majority or minority culture. This study operationally defines race as either White or Women of Color.

Research Questions:

The following research questions were addressed in this study:

1a. What is the relationship of race (White vs. Women of Color) and body image perceptions (higher vs. lower) with coping styles as defined by the Ways of Coping Questionnaire (i.e. total score and subscale scores including confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal) for women diagnosed with breast cancer?

1b. What is the relationship of race (white vs. women of color) and body image perceptions (higher vs. lower) with self-efficacy in coping as defined by the Cancer Behavior Inventory (i.e. maintenance of activity and independence, coping with treatment related side effects, accepting cancer/maintaining a positive attitude, seeking and understanding medical information, affective regulation, seeking social support, and stress management for medical appointments) for women diagnosed with breast cancer who have had mastectomies?

2a. What is the relationship of race (African-American vs. Latina vs. Asian-American vs. Native American) and body image perceptions (higher vs. lower) with coping styles as defined by the Ways of Coping Questionnaire (i.e. total score and subscale scores including confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal) for women of color who have been diagnosed with breast cancer?

2b. What is the relationship of race (African-American vs. Latina vs. Asian-American vs. Native American) and body image perceptions (higher vs. lower) with self-

efficacy in coping as defined by the Cancer Behavior Inventory (i.e. total score and subscale scores including maintenance of activity and independence, coping with treatment related side effects, accepting cancer/maintaining a positive attitude, seeking and understanding medical information, affective regulation, seeking social support, and stress management for medical appointments) for women of color diagnosed with breast cancer?

3. Do White women and Women of Color differ in their body image perceptions?

4. Do Women of Color in different racial groups differ in their body image perceptions?

Research Hypotheses

1a. It was expected that Women of Color and White women would differ in their use of coping strategies.

i. It was hypothesized that Women of Color would be more likely to use a higher percentage of distancing and escape-avoidance coping strategies while White women would be more likely to utilize a higher percentage of seeking social support and planful problem solving as determined by raw scores.

ii. Women with higher body image perceptions would report more positive coping strategies (e.g. confrontive coping, seeking social support, and positive reappraisal) compared to women with lower perceptions of body image.

iii. Women with higher body image perceptions would report higher levels of overall coping compared to women with lower body image perceptions.

1b. i. Women of Color would report less confidence in their ability to seek and understand medical information and seeking social support compared to white women.

Women of Color would report more confidence in their ability to maintain activities and independence and the ability to regulate affect compared to White women.

ii. Women with higher perceptions of body image would report more confidence in coping (e.g. total score and subscale scores including maintenance of activity and independence, coping with treatment related side effects, accepting cancer/maintaining a positive attitude, affective regulation, seeking social support, and stress management for medical appointments) compared to women with lower perceptions of body image.

2a. There was not enough information to know how Women of Color would differ, however, it was expected there would be differences among African-American, Latina, Asian-American and Native American groups in their use of coping strategies.

2b. There was not enough information to know how Women of Color would differ, however, it was hypothesized there would be differences among African-American, Latina Asian-American and Native American groups in confidence in coping.

3. It was expected that Women of Color would report more positive body image perceptions than that of White women.

4. Though there was not enough information to know how Women of Color would differ, it was expected that there would be differences in body image perceptions among African-American, Latina, Asian-American and Native American women.

CHAPTER TWO

LITERATURE REVIEW

The literature that was reviewed for this study demonstrates the need for empirical research that addresses racial and cultural influences on health behavior, coping, and breast cancer. First, statistics regarding incidence and survival were explored in 1998, in conjunction with the psychological impact of mastectomy on breast cancer patients. Second, body image issues for breast cancer patients was addressed. Third, research on coping with breast cancer was discussed. And fourth, the research on race (i.e., incidence and survival, health beliefs, religiosity) and breast cancer was considered.

Introduction

Breast cancer is the leading cause of mortality in women (Cancer Statistics, 1999). Breast cancer accounted for 43,900 deaths in the United States in 1998 (Miller & Sledge, 1999) and there were 180,300 individuals in the United States that developed breast cancer in the same year (Horton, 1998). As a result, one out of every eight women will develop breast cancer in her lifetime (American Cancer Society, 1999).

Rates of cancer incidence varies considerably among racial and ethnic groups (Cancer Statistics, 1999). White women are more likely to develop breast cancer than are other women, and yet, the mortality rate for Women of Color with cancer is considerably higher. "...African American women are more likely to die of breast and colon and rectum cancers than are women of any other racial and ethnic group..."(Cancer Statistics, 1999). Given the steady decrease in survival rates (and the gap is widening) for African-American women as well as Asian-American, Latina/Hispanic, and Native American women, who

have been diagnosed with breast cancer, coupled with fact that breast cancer is the leading cause of death among women in general, makes breast cancer a serious public health concern (Long, 1993). For instance, Powell (1994) stated that, "of The Psychological Impact of Mastectomy On Women With Breast Cancer depression up to 10%." Of the 180,300 individuals that were newly diagnosed with breast cancer in 1998, approximately 135,000 presented with early breast cancer (stage I or stage II) (Morris et al., 1997). Prior to 1980, most of these women would have undergone a mastectomy. Since 1980, however, six clinical trials comparing mastectomy to breast-conserving therapy (BCT) found no statistically significant difference in survival rates between the two procedures (Morris et al., 1997). As a result, the National Institutes of Health in 1990 recommended BCT as the preferred treatment for the majority of women with early stages (I and II) of breast cancer (Morris et al., 1997). Nevertheless, an examination of the literature and data from the Surveillance, Epidemiology, and End Results (SEER) Program and a review of Medicare billing records both showed striking geographic variations in the utilization rates of BCT compared to mastectomy (Morris et al., 1997). Unfortunately, there is little in the literature to indicate how utilization rates have changed since the 1990 publication of the NIH consensus conference report (Morris et al., 1997). Apparently, BCT is still not used as much as the utilization of mastectomy for patients with stages I and II breast cancer in certain geographic regions (G. Pikler, personal communication, May 5, 1999).

The research exploring the psychological impact of mastectomy on breast cancer patients has been mixed. Some researchers have found that significant numbers of women

experience psychosocial morbidity (Feather & Wainstock, 1989; Ray, 1977; Powell, 1994) while others have found mastectomy does not predict a decrease in psychosocial function (Moyer, 1997; Penman, et al., 1987). For instance, Powell (1994) stated that, "...of mastectomized women, 22-33% may develop severe mood disturbances or depression up to one to two years after mastectomy and 30% develop sexual difficulties (Powell, 1994, p. 135)." In another study, (Ray, 1977) women who had mastectomies were more depressed and anxious and tended to have lower self-esteem than compared to the control group of women who had cholecystectomies (removal of the gall bladder). Other studies have not found a significant relationship between mastectomies and subsequent psychological dysfunction in women, "Our findings challenge the assumption that breast surgery automatically results in an increased incidence of psychosocial disability (Penman et al., 1987, p.126)." In Penman's study (1987), women between the ages of 30 to 69 and without pre-existing serious mental or physical problems, were able to use their coping resources to make a successful psychosocial acclimation. Moyer (1997) found there were modest differences between lumpectomy (BCT) and mastectomy patients psychologically, but that the significance was too small to indicate marked beneficence; although adjustment was slightly better using BCT.

Many researchers in the literature propose that depression and anxiety, after mastectomy, is related to the loss of the breast and the importance a woman places on this body part in defining her femininity (Penman et al., 1987; Clifford, 1979; Collette et al., 1984; Margolis & Goodman, 1983; Mock, 1993; Polivy, 1977; Rosser, 1981; Schover, 1991). Subsequently, for some women, having a mastectomy has an impact on one's

perception of body image. Clearly, more research is needed to understand the effects of mastectomies, BCT, and other interventions on the psychology of women with breast cancer. The type of procedure performed on a breast cancer patient continues to be of

Body Image

The breast, in North American culture specifically, has greater significance than merely a body part, "...the breasts have a particular aesthetic and sexual significance within this culture" (Ray, 1977, p. 373); the breast can symbolize sexuality, femininity, attractiveness, and motherhood. Kincaid (1984) stated that the breast has been a universal symbol of womanhood since recorded history making us a sort of "breast fixated culture" and that mastectomy for women is equivalent to castration for men. Therefore, "...in a society where a woman's breasts are valued as symbols of sexuality and nurturance, the possibility of mastectomy or any physical change of the breast is perceived as an assault on the woman's self image and self esteem (Powell, 1994, p.135)."

Body image has been defined as "...the 'physical self' and includes attitudes and perceptions regarding one's physical appearance, state of health, skills, and sexuality" (Mock, 1993, p. 154). Body image has also been characterized by "...the perception of what a person's body is like and how much it matters to a person" (Carver et al., 1997, p.168). Researchers who have studied body image in breast cancer patients have explored the relationship between the surgical procedure performed and perception of body image (Hopwood, 1992; Mock, 1993; Moyer, 1997); self-image before and after surgery (Carver et al., 1997; Penman et al., 1987); the relationship between age, stage, and body image (Moyer, 1997; Penman et al., 1987); and the benefits and limitations of breast

reconstruction for women with early and late stage breast cancer (Moormier, 1996; Reaby & Hort, 1992). They were beforehand, and they seemed determined to do so" (Carver, et al., 1998). The type of procedure performed on a breast cancer patient continues to be of some controversy in regards to a woman's psychological adjustment to it and the impact on a woman's perception of body image from it (Mock, 1993). Some researchers have found that psychological morbidity is less and positive feelings about women's bodies are greater after BCT than after a mastectomy (Bartelink, van Dam & van Dongen, 1985; DeHaes, van Oosterom, & Welvaart, 1986; Lasry et al., 1987; Schain et al., 1983). In some studies, the BCT groups have shown less sexual dysfunction, earlier resumption of sexual activities, and greater sexual satisfaction (Aaronson et al., 1988; Margolis, Goodman, & Rubin, 1990; Taylor et al., 1985). Mock (1993) found that "women treated with conservative surgery were more satisfied with their bodies than women treated with mastectomy" (Mock, 1993, p. 156). Hopwood (1992) also found that "conservative surgery is associated with the preservation of body image in comparison to mastectomy" (Hopwood, 1992, p. 276).

Some investigators have found that the perception of body image may not change due to the surgery or its type. Carver et al. (1997) found that women's perceptions of body image referred to their appearance and their perceptions of their bodies as intact, properly functioning entities. Caring about one's appearance prior to mastectomy or BCT seemed to guard against the erosion of women's sense of attractiveness or sexual desirability after the mastectomy, indicating perhaps that the perception of body image is a stable variable (Carver, et al., 1998). "Women who said they cared about how they

looked seemed to know that they were just as capable of looking good after their women treatment as they were beforehand, and they seemed determined to do so" (Carver, et al., 1998). In another study, the type of procedure for breast cancer had less of an impact on perceptions of body image than did how women perceived their body images prior to diagnosis (Penman et al., 1987). Women suffering from low self-image prior to their diagnosis continued to feel negatively toward their body images post-mastectomy, compared to women with high self-image. Interestingly, the most important predictor of body image dissatisfaction in women who had mastectomy, cholecystectomy, or no surgery at all was weight. However, the mastectomy group reported more body image dissatisfaction than the control group (no surgery). The magnitude of the difference was small, however, and explained only one percent of the total variation on self-esteem (Penman, et al., 1987).

Other factors found to affect perception of body image in breast cancer patients included age and stage of disease (0 to IV). Moyer (1997) reported that older and younger patients may have different psychosocial responses to surgical treatments. Younger patients may react more negatively to mastectomy than older patients, while older patients may react more negatively to BCT than their younger counterparts due to the fear of cancer recurrence (Moyer, 1997). Penman et al. (1987) found age was a factor for intimacy concerns. "Women in their fifties and sixties were less likely to express intimacy concerns than the younger women" (Penman et al., 1987, p. 119).

Breast reconstruction offers a way to improve body integrity, and perhaps adjustment, after a mastectomy and may sometimes result in a cosmetically superior

outcome than BCT (Moyer, 1997). "Levels of satisfaction with body image for women who undergo reconstruction are reported to fall in between those of the women treated with mastectomy without reconstruction and those receiving breast-conserving treatment" (Moyer, 1997, p. 8). Unfortunately, women who are diagnosed in later stages of disease (III and IV) are not candidates for BCT, nor, in most cases breast reconstruction. This has implications for the amelioration of disfigurement for women of ethnic diversity, in particular, given that they are typically diagnosed during the later stages of breast cancer (Moormier, 1996). The alternative, albeit a poor one, to breast reconstruction is the wearing of breast prostheses. Reaby and Hort (1994) found that some women who wore prostheses considered it a demeaning reminder of their "deformity." Moreover, less than ten years ago, there were no other colors available for women who wear prostheses other than white (M. Cook, personal communication, April 20, 1999). Furthermore, no studies to date explore racial differences in body image perceptions of women with breast cancer, nor are there studies that examine self-efficacy in coping with breast cancer.

Coping and Breast Cancer

The literature on coping with breast cancer concedes that the diagnosis of cancer heralds a series of frightening events and can be a harrowing experience (Cunningham, Lockwood, Cunningham, 1991). Roberts (1972) found that 51% of their sample of mastectomized women said they had experienced anxiety or depression. Asken (1975, p. 56) found that generally "...the predominant psychological reactions to mastectomy are a sense of mutilation and a loss of feelings of femininity." Mastectomy raises several fears in women including fear of surgical procedures, fear of death, fear of recurrence, fear of

side effects, fear of loss of sexual desirability, and if the woman is married, fears of danger to marriage (Goldsmith and Alday, 1971). In younger patients, breast cancer and/or the mastectomy procedure may suddenly force them to confront their own mortality while in older patients breast cancer and/or the mastectomy may confirm old age (Asken, 1975). Other researchers concur that breast cancer and surgical treatments such as BCT and mastectomy are anxiety provoking events. Meyerowitz (1983) stated, "empirical research, clinical observations, and anecdotal reports converge to suggest that breast cancer is a highly distressing and emotionally threatening disease, having an even greater psychosocial impact than other cancers" (Meyerowitz, 1983, p. 117). The rate of psychological disorder in 215 newly diagnosed cancer patients was approximately three times that of the general population (Derogatis et al., 1983). In one study, 85% of those receiving breast cancer diagnoses had depression or anxiety symptoms (Stanton & Snider, 1993). Finally, Powell (1994) reported that of mastectomized women, "22%-33% may develop severe mood disturbances or depression up to one to two years after mastectomy and 30% develop sexual difficulties" (Powell, 1994, p. 135).

Not every breast cancer patient develops significant psychosocial morbidity; nevertheless, the diagnosis of breast cancer itself is stressful to many patients. Because a sense of lack of control over stressful events (such as breast cancer) may be common in breast cancer patients, it is essential to examine coping strategies to mediate this potential distress of having breast cancer and receiving treatments. Stanton and Snider (1993) studied adjustment to breast cancer by exploring cognitive coping strategies. They found that cognitive and behavioral avoidance of cancer issues were maladaptive and produced

more negative effects than optimism paired with a belief in personal control over one's situation (Stanton & Snider, 1993). Their findings further indicated that women who approached breast biopsies with an expectancy of a bad outcome (e.g., low optimism) and who "disengaged" (e.g., cognitive avoidance) had higher levels of distress compared to those who had high optimism and who "engaged" with others regarding the cancer likely (Stanton & Snider, 1993). They added, "avoidant coping may impede effective cognitive processing and problem solving directed toward [those] decisions" (Stanton & Snider, 1993, p. 22). Other researchers in the literature concur. For instance, people who actively confronted their illness and in general "engaged" (discussed with others the illness and the feelings surrounding it) showed better psychological health compared to other people who avoided the subject (Chen, et al., 1996). In another study, "confrontive subjects reported significantly fewer psychological and physical symptoms than avoidant-confrontive and avoidant-resigned subjects" (Shapiro et al., 1997, p.156). A critical component in optimal coping may be a willingness to discuss and think about breast cancer (Shapiro et al., 1997). In a sample of 101 women diagnosed with metastatic or recurrent breast cancer, Classen et al. (1996) found that a fighting spirit and emotional expressiveness were associated with better adjustment whereas no association was found between denial and fatalism and adjustment.

Despite these findings, other investigators have discovered the positive effects of cognitive avoidance, minimization, or denial to have positive effects in patients with breast cancer (Buddeberg, 1996; Meyerowitz, 1983; Watson, 1988). Minimization, or cognitive avoidance, is the denial of the patients' awareness of stressful information about cancer or

the minimization of upsetting emotional responses (Meyerowitz, 1983). In fact, cancer related denial was negatively correlated with distress in one study (Meyerowitz, 1983). High level of denial may have short term benefits in reducing stress due to cancer, however, denial may not be beneficial as a long-term general strategy. Buddeberg (1996) found that those individuals who used a fighting spirit or denial strategy were more likely to be alive five years or more after their original cancer diagnosis than compared to those who used stoic acceptance or helplessness/hopelessness coping strategies (Mental Adjustment to Cancer Scale, 1988; Watson et al., 1988). However, somatic parameters such as tumor size and stage were more important than coping strategies in predicting death from cancer.

Perceived social support has been identified in the literature as another important coping strategy for individuals diagnosed with breast cancer (Bloom, 1982; Ford, 1996; Meyerowitz, 1983). Meyerowitz (1983) found that moderate amounts of social support served to decrease stress, while high or low amounts were detrimental to individuals with breast cancer. For instance, patients who perceived very low social support may be distressed because they lacked support. Conversely, very distressed patients who perceived heightened amounts of social support may illicit more attention from family and friends due to their distress (Meyerowitz, 1983). "Social support may be important in adapting to illness, but only when it can be supplied without encouraging dependency or reinforcing illness behavior" (Mechanic, 1977). Bloom's (1982) study on social support, accommodation to stress, and adjustment to breast cancer found that family cohesiveness and social contact had direct effects on coping and indirect effects on three measures of

adjustment (psychological distress, self-concept, and sense of power). "Coping mediates the relationship between social support and adjustment" (Bloom, 1982, p. 1338). Finally, Penman et al. (1987) stated that "[the] more important predictor for nearly all outcomes selected was the measure of social support used...fear about withdrawal of support by significant others is cited as common among post-mastectomy concerns" (Penman et al., 1987, p. 128).

Lastly, self-efficacy and perceived sense of personal control were aspects of coping with breast cancer studied by several researchers (Buddeberg et al., 1996; Cunningham, Lockwood, & Cunningham, 1991; Ell, 1986; Meyerowitz, 1983; Penman et al., 1987; Taylor et al., 1984). These investigators confirmed previous findings that noxious stimuli are rendered less painful and distressing, and fear is diminished by perceived self-efficacy in coping (Bandura, 1982; Bandura et al., 1985; Lefcourt, 1973). Cunningham, Lockwood, & Cunningham (1991) reported that their findings documented the importance of self-efficacy as a determinant for quality of life and mood for cancer patients. These researchers found a strong positive relationships between self-efficacy and quality of life and between self-efficacy and mood in breast cancer patients (Cunningham, Lockwood, & Cunningham, 1991). For instance, locus of control was a significant predictor of social health; "...women reported poorer social health when they expected less personal control and more chance events to play a role in their lives" (Penman et al., 1987, p. 119).

Race/Ethnicity and Breast Cancer

"Ethnicity and poverty influence women's experiences with a chronic illness such as cancer" (Ashing-Giwa & Ganz, 1997, p. 34). However, most studies to date have only

used small percentages of women of color in their samples. Subsequently, little is known about the ways these women cope with breast cancer, nor, how they perceive their bodies. As mentioned previously, rates of cancer incidence and survival varies considerably across racial and ethnic groups. In the 1999 Cancer Statistics Journal for Clinicians, it is stated that, "African Americans are about 34% more likely to die of cancer than are whites and more than two times more likely to die of cancer than are Asian/Pacific Islanders, American Indians, and Hispanics"(Cancer Statistics, 1999, p. 10). White women are more likely to develop breast cancer than are women of other groups, and yet, black women have a mortality rate from breast cancer similar to that of white women because they have a lower five year disease-specific survival rate--64% in black women compared with 80% in white women in 1996 (Moormier, 1996). In addition, black women have larger primary tumors, a higher incidence of spread to the axillary lymph nodes, and more distant metastatic disease compared to white women (Moormier, 1996). Giuliano et al. (1998) reported that one year and five year breast cancer survival rates among Southwest American Indian women, compared with non-Hispanic whites, was significantly lower; primarily due to late stage diagnosis. Frost et al. (1996) also found that American Indian women experienced poorer survival than non-Hispanic whites. "The significance of this lower survival is amplified by increasing breast cancer incidence among New Mexico Hispanics and American Indians" (Frost et al., 1996, p.861). Delgado, Lin, and Coffey (1995) found that incidence and survival rates for breast cancer were similar among African American women, American Indian women and Hispanic women in that most were diagnosed in later stages. Their research indicated that poverty and Hispanic

race/ethnicity were significant predictors of reduced breast cancer survival. In regard to Asian American and Asian women's breast health, Ziegler et al. (1993) reported that those breast cancer incidence rates have been 4-7 times higher in the United States than in China or Japan. When Chinese, Japanese, or Filipino women migrate to the United States, their risk for breast cancer rises, suggesting exposure to Western "lifestyles" had an impact on breast cancer risk in Asian migrants (Ziegler, et al., p. 1819).

Mammography Use and Women of Color

Racial and socioeconomic differences have accounted for differences in women's use of mammography and conduction of self breast examinations for early detection of breast cancer. For example, "Hispanic women are less likely than are African Americans or whites to report prior breast or cervical cancer screening" (Skaer, Robison, Scclar, & Harding, 1996, p. 339). Increasing age, low income level, low level of education, rural residence, and lack of health insurance have been cited reasons by several researchers as characteristics that predict low rates of mammography (Hayward, Shapiro, Freeman, & Corey, 1988; Katz & Hofer, 1994; Calle, Flanders, Thun, & Martin, 1993). In black women, the most commonly reported reason for lower utilization of mammography was the belief that it was not needed if there were no breast "problems" and the lack of physicians' recommendations to receive a mammogram (Moormier, 1996). Although from the study it is unclear why physicians are failing to recommend the procedure. It was also reported that another reason for low use of mammography was a low level of awareness regarding cancer screening (Skaer et al., 1996). Acculturation was a factor for low use of mammography in a study of Hispanic migrant workers; the number of years in

residence in the United States was positively related to receipt of a mammogram or Pap smear (Skaer, 1996). In addition, in regards to surgical procedures, "women who chose lumpectomy over mastectomy tend to be more educated, to have greater social support networks, and to enjoy more leisure than their counterparts who chose mastectomy" (Powell, 1994, p. 135).

Health Beliefs Among Women of Color

Differential use of screening practices and selection of surgical procedures may be related to beliefs about medical care and services. One possible explanation for these differences is that a mistrust in the medical establishment was found to be pervasive among some in the African-American community which resulted in delay of medical treatment, "...when African-Americans do use the medical establishment, they view it with some caution and mistrust" (Ashing-Giwa & Ganz, 1997, p. 25).

Other health beliefs among women of color have been studied in the literature (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Chavez et al., 1995; Chavez, Mishra & Valdez, 1996; Fulton, Rakowski & Jones, 1995; Mathews, Lannin & Mitchell, 1994; Powell, 1994). Research findings indicated a person's culture affected health beliefs, which in turn, affected health behavior. For instance, Baider & Sarell (1983) found that "Oriental" Jewish women in Israel (those from the Middle East, North Africa, and Muslim countries) believed breast cancer was a punishment for their sins and therefore uncontrollable. "Oriental" women in this study responded fatalistically, said they felt helpless, resigned and submissive and were quoted as saying, "Only God knows the reason for my suffering" (Baider & Sarell, 1983, p. 142).

Ashing-Giwa and Ganz (1997) and Mathews et al. (1994) studied African American women's health beliefs and found that less educated and lower income individuals viewed cancer as a death sentence. Therefore, they delayed seeking treatment which resulted in later stage prognoses at the time of diagnoses which served to make their health beliefs a reality. In many African American communities the topic of cancer may still be taboo (Ashing-Giwa & Ganz, 1997). Stereotypical beliefs may prevail especially in some of the poorer communities such as: cancer is contagious, it is caused by physical trauma, it is a punishment from God, it is caused by immoral behavior, or is caused by a state of emotion such as being angry or chronically stressed (Ashing-Giwa & Ganz, 1997). A number of other relevant health beliefs emerged for African-American women including: older women were socialized to believe that breasts were extremely private; if one gets a mammography or a biopsy it will make it worse; if it (the breast or lump) did not hurt, women believed that they should leave it alone; the 'sick role' was not subscribed to; minimization of symptoms was common; other priorities of the family took precedence over medical care; and social support was less solicited so as not to concern the family (Ashing-Giwa & Ganz, 1997; Mathews, Lannin, & Mitchell, 1994; Moormier, 1996; Powell, 1994).

Mathews, Lannin, and Mitchell (1994) discussed black women in North Carolina who drew upon the indigenous blood paradigm to explain their breast cancer. This paradigm was a way they related their symptoms to a "folk" theory of disease which was based upon the idea that there was an imbalance in the blood or what they called "bad blood" or "dirty blood" (Mathews, Lannin, & Mitchell, 1994). This paradigm, found

primarily in the Southeast and other parts of the United States, hypothesized that blood may be too high or too low, too bitter or sweet, too thick or thin, or too dirty. In regards to breast lumps or knots, the belief was that there were "impurities" in the breast. The impurities circulated throughout the system and were trying to "come out," therefore the lump (Mathews, Lannin, & Mitchell, 1994).

Chavez, Hubbell, McMullin, Martinez, and Mishra (1995) explored health beliefs of Hispanic/Latina women and found "Latina ethnicity and acculturation levels were significant predictors of these beliefs" (Chavez et al., 1995, p. 145). Some of the beliefs among less acculturated women included "bad behavior" (e.g., the use of alcohol and illegal drugs) was the cause of their cancer, and, that breast trauma and breast fondling increased the risk of breast cancer. Hispanic women in their study (Salvadorans, Mexicans, and Chicanas) were also less likely than Anglo women to know that breast lumps and bloody discharge could indicate breast cancer (Chavez, et al., 1995).

Conversely, "Western" Jewish women in Israel (those from Europe and America) were discovered to subscribe to a more scientific explanation for breast cancer and therefore felt more capable of exerting some control over their health behavior, such as nutrition and mammography (Baider & Sarell, 1983). They tended to mobilize their own energies to try different procedures and to ask for help from, and trust in, medical professionals. "They don't blame themselves or others for the illness and are not guilt-ridden" (Baider & Sarell, 1983, p. 142). Physicians and Anglo-American women in the study done by Chavez et al. (1995) emphasized risk factors that are described in the medical literature, such as family history and age (Chavez, et al., 1995), and therefore

subscribed to a more “biomedical” model for health beliefs. Although these health beliefs provide explanations for some health behaviors, they do not provide a clear picture regarding how women of color perceive their bodies, especially after diagnoses of breast cancer. Indeed, the subject of body image and breast cancer for Women of Color has gone virtually unexamined. (Baustien, 1991, p 799). As

Body Image and Women of Color

Few studies have been conducted that look specifically at perceptions of body image in breast cancer patients that belong to differing racial and ethnic groups. This has important implications for health care professionals in that women of color often present with later stages of disease and therefore are rarely candidates for breast reconstruction which has been shown to be of psychological benefit to white women (Mock, 1993; Hopwood, 1992). Kagawa-Singer et al., (1997) looked at the impact of breast cancer among Asian-American women and found that they chose breast conserving treatment and reconstruction surgeries at a lower rate than Anglo women when they were possible, indicating perhaps that there are cultural differences in the value of the breast to femininity, though this would require further research (Kagawa-Singer et al., 1997). Giuliano, et al. (1998) studied Chinese women and why their breast cancer went untreated. They found cultural values that influenced health behavior and body image, in that, issues of modesty and sexuality, especially in unmarried women, predicted lack of attention to breast health.

Implications of Cultural Health Beliefs for Healthcare Providers

Understanding a patient's cultural context and the meanings patients ascribe to

their breast cancer is obviated in the above. Health care providers need to be cognizant and culturally sensitive enough not to assign a pathological view of a patient if they hold fatalistic beliefs, nor assign pathology when there is a lack of medical knowledge. Balshem (1991) notes, "If fatalism is a disease, there is no need to look further at an indigenous etiology that is merely a symptom of this disease" (Balshem, 1991, p.799). As a consequence of the latter, physicians sometimes dismiss patients' attempts to come to terms with their breast cancer by the telling of stories or use of "folk theories"; seeming irrational to physicians. Ultimately, this may contribute to a break-down in the doctor-patient relationship. A number of studies have found that when the physician or other healthcare providers and the client come from similar cultures, they are more likely to understand and validate each other's perception of reality and interpret the presenting problem in a similar fashion (Davis & Proctor, 1989; Sue & Sue, 1990; Pierce, 1997, p. 2). Although the doctor-patient relationship is beyond the scope of this study, it has obvious undertones to patients' experiences with the disease of breast cancer.

Coping and Women of Color

Ironically, though women of color are more likely to die of breast cancer than white women, little is known about their coping strategies or their self-efficacy in coping. (Bourjally, 1998). A limited number of researchers have examined coping in women of color, but primarily in terms of religiousness (Ashing-Giwa & Ganz, 1997; Bourjally, 1998; Mathews et al., 1994; and Mickley & Soeken, 1993).

Religion has been indicated as an important coping strategy that mediates the relationship between life events and outcomes, as well as being a product of that process

(Pargament & Park, 1995). In addition, the use of religion in the problem solving process has been observed (Pargament & Park, 1995). Those with a strong religious faith have been shown by investigators to have higher levels of hope and coping responses than those with weak faith or those without faith (Herth, 1989). Benefits of religion in cancer patients may include decreased levels of pain, anxiety, hostility, social isolation, lower mortality rates and higher levels of life meaning and satisfaction (Acklin, Brown, & Mauger, 1983; Jenkins & Pargament, 1995; Kaczorowski, 1989; Yates, 1981).

Mickley and Soeken (1993) found evidence to support cultural differences in the use of religion as a coping strategy. In their study, Hispanic women scored significantly higher on a hope scale, a spiritual well-being scale, and a religiousness scale than white women resulting in a significant difference between the two groups in intrinsic religiousness, an internalized "master motive" in one's life (Mickley & Soeken, 1993).

Bourjally (1998) and Ashing-Giwa and Ganz (1997) found that a primary source of coping with stressful events for African-American women were spiritual beliefs. "In general, the literature describes religion as an important resource for African-Americans" (Bourjally, 1998, p. 24). The influence of religion was noted to be of importance historically for black Americans, as the church played a central role for black people since the era of slavery (Hines & Boyd-Franklin, 1982) and was a major aspect of their lives before slavery in Africa. In regards to health, God was reported as a healer who can be called upon to alleviate illness (Bourjally, 1998). In Bourjally's study (1998) there was a significant racial difference in levels of religiousness, using the Religiousness Scale (Strayhorn, 1990) with black women scoring higher on both public and private

religiousness compared to white women. "Race was still a significant contributor to of the differences in religiousness between black and white women" (Bourjally, 1998, p. 32). In the Mathews et al. (1994) article that included women with advanced stage breast cancer from North Carolina, a woman named Sharon integrated medical knowledge with a "partnership" with God that named God as the "team leader" and she, the patient, the mediator between God and the physician (Mathews et al., 1994). In summary, breast cancer is the leading cause of mortality in women and accounted for 43,000 deaths in the United States in 1998. Out of the 180,300 newly diagnosed women with breast cancer in 1998, 135,000 had stage I or stage II breast cancer. Since 1990, breast conserving surgeries were recommended by the NIH for these women, and yet, the use of BCT is a geographical issue as some parts of the country are still not utilizing breast conserving therapy. In addition, there is racial disparity among women in regards to breast cancer incidence, survival, and prognoses. The mortality rate for women of color is higher and their presentation to medical treatment is normally in the later stages of disease. Therefore, women of color are less likely to survive and less likely to be BCT or breast reconstruction candidates compared to white women.

Some researchers have linked a positive body image perception to the type of surgical procedure performed while others have reported positive self-image prior to diagnosis to be more important. Nevertheless, investigators concur that the loss of a body part which is significantly related to femininity (such as the breast) results in negative alteration of body image.

The literature on coping with breast cancer has found that a breast cancer

diagnosis is a distressing event. Some researchers propose that cognitive avoidance of the issue of breast cancer is a maladaptive coping strategy while others believe cancer-specific denial may prove beneficial. Moderate levels of social support and a sense of personal control over the cancer is reported to be important in coping with breast cancer. Finally, there have been few studies found in the literature on ethnicity and breast cancer. Those that have been done discuss the use of mammography, health beliefs and folk theories, and religiousness as an important resource for women of color in coping with breast cancer.

A large enough sample was recruited and employed at the time. The mean age of the 65 participants was 58.3 (SD = 7.1), with a range of 45 to 75 years of age. The majority of the participants were White (approximately 65%), and approximately 35% were African American. The majority of the participants were married (approximately 65%), and approximately 35% were single. The majority of the participants were employed (approximately 65%), and approximately 35% were unemployed. The majority of the participants were living with a partner (approximately 65%), and approximately 35% were living alone.

received their bachelor's degree, 10.8% (n=7) had received a Master's Degree (3.1%) and one participant had received a PhD (0.3%).

CHAPTER THREE

METHODOLOGY

Participants made \$20,000 (n=28), 20% made between \$20,001 and \$30,000 (n=13), 12.3% Sixty-five patients of Cancer Specialists, Inc. in Tulsa, Oklahoma, and Oklahoma University Medical School's Adult Medicine Clinic in Tulsa, Oklahoma participated in this study. All participants were women who had been diagnosed with breast cancer. An attempt was made to have equal numbers of women in each racial group (e.g., African-American, Latina, Asian-American, Native American, and Caucasian), however a large enough sample was not able to be acquired at this time. The mean age of the 65 participants was 58.56 (sd=11.84), with a range of 32 to 86 years of age. The majority of the participants were White (nearly 68%, n=44); approximately 22% were African-American (22.5%; n=14), 1.5% were Asian/Pacific Islander (n=1), and 7.7% were Native American (n=5). Over half of the sample were married (53.8%; n=35); eleven women reported being widowed (16.9%), eleven women reported being divorced (16.9%), 3 women reported being separated (1.5%). The majority of women had children (95.4%; n=62). The average number of children in their families was 2.21 (sd=1.25), with a range of 0 to 7 children. The majority of the sample reported that they agreed or strongly agreed with the beliefs of their religion (86.2%; n=56) and 7.7% (n=5) agreed somewhat with the beliefs of their religion.

In terms of the level of education completed, 10.8% (n=7) of the women participants had not completed high school, 46.2% (n=30) had received their high school degree or GED equivalent, 26.2% (n=17) had attended some college, 9.2% (n=6) had

received their bachelor's degree, two women had received a Master's Degree (3.1%) and one participant had received a PhD (1.5%). In terms of annual household income, 43% of the sample made \$20,000 (n=28), 20% made between \$20,001 and \$30,000 (n=13), 12.3% made between \$30,001 and \$40,000 a year (n=8), 7.7% of the sample made between \$40,001 and \$50,000 (n=5), and 15.4% of the participants had an income of \$50,001 per year (n=10). A little over half of the sample was from an urban community (53.8%; n=35), 29.2% were from rural communities (n=19), and 15.4% were from suburban areas (n=10).

In terms of the stage of disease, the majority of participants were diagnosed with either Stage II (41.5%; n=27) or Stage I (30.8%; n=20) breast cancer. Nine women were diagnosed with Stage III and seven women were diagnosed with Stage IV breast cancer, 13.8% and 10.8% respectively. Approximately a quarter of the sample had been diagnosed with breast cancer for two years or longer (n=27; 41.5%), about a quarter of the sample had been diagnosed with breast cancer for one year or less (n=30; 46.2%), and approximately ten percent had been diagnosed with breast cancer more than 1 year but less than 2 years (n=8, 12.3%). In terms of cancer treatments, 26 reported having had mastectomies (60%), 19 reported lumpectomies (29.2%), 37 reported receiving chemotherapy (56.9%), 26 reported receiving radiation treatment (40%), 25 reported taking Tamoxifen (38.5%) and 10 reported receiving some other treatment intervention for cancer (15.4%; e.g., stem cell transplant, bone marrow transplant). It should be noted that all of the women in this sample had received a lumpectomy and/or mastectomy prior to participating in this study. See Table 1 for the demographics of the sample.

Measures

Instruments in this study included a demographic sheet, consent form, the Cancer Behavior Inventory (Merluzzi and Sanchez, 1997), the Ways of Coping Questionnaire (Folkman & Lazarus, 1988; Folkman et al., 1986), and the Measure of Body Apperception (Carver et al., 1997).

The Cancer Behavior Inventory: Self-efficacy in coping with cancer was measured using the Cancer Behavior Inventory (CBI-L; Merluzzi & Sanchez, 1997), a 33-item questionnaire which measured participants' confidence in accomplishing major coping tasks that a person with cancer must confront over the course of their disease and treatments (Merluzzi & Sanchez, 1997). Items of the CBI identified issues related to 1) maintaining activity in spite of their cancer (and its treatments) which included continuation of physical contact and nonphysical intimacy with others; 2) coping with side effects of treatment such as nausea, emesis, hair loss, and lack of energy; 3) the dual tasks of remaining hopeful and positive while accepting the reality of the disease; 4) personal involvement and active participation in the treatment of the disease; 5) the expression of strong feelings and/or denial, escape, and ignoring--the flexibility to use any or all of these coping techniques; and 6) initiation of support, or, actively seeking support (Merluzzi & Sanchez, 1997). Individual items on the CBI were rated on a 9-point Likert scale which reflected how confident the patient thought they were in coping with different aspects of cancer from not at all confident (1) to totally confident (9).

The six subscales of the CBI included: Maintenance of Activity and Independence: maintaining a daily routine; Coping With Treatment Related Side Effects: coping with hair

loss; Accepting Cancer/ Maintaining a Positive Attitude: actively participating in treatment decisions; Seeking and Understanding Medical Information: seeking information about cancer or cancer treatments; Affective Regulation: ignoring things that cannot be dealt with; Seeking Support: sharing feelings of concern; Stress Management for Medical Appointments: remaining relaxed while waiting at least one hour for my appointment.

"Based on the factors that emerged, the CBI appears to have reflected the major coping tasks that a person with cancer must confront..." (Merluzzi & Sanchez, 1997).

The CBI was reliable in that the internal consistency (Cronbach's alpha) for the entire scale was .96. The CBI was scored by summing the patients' ratings across all 33 items to obtain the overall score (Cronbach's $\alpha = .94$) and was also scored by subscales. For comparison of means across scales (factors), the summed score was divided by the number of items in the scale. The six subscales that emerged were the following: Maintenance of Activity and Independence ($\alpha = .89$), Coping With Treatment Related Side Effects ($\alpha = .88$), Accepting Cancer/Maintaining a Positive Attitude ($\alpha = .87$), Seeking and Understanding Medical Information ($\alpha = .88$), Affective Regulation ($\alpha = .75$), and Seeking Support ($\alpha = .77$). For the purpose of this study, the total and factor scores were used.

The Ways of Coping Questionnaire: The Ways of Coping Questionnaire (WOCQ) was a 66-item questionnaire that was used to measure coping processes. The questionnaire contained a variety of coping and behavioral strategies employed to manage internal and external demands when faced with a stressful event (Bourjaily, 1998). Individuals answered each item using a 4-point Likert scale, (0=not used, 3= used a great

deal) indicating the frequency with which each strategy was used (Folkman & Lazarus, 1988) in remembrance of a recent stressful event.

The subscales of the WOCQ (Folkman & Lazarus, 1988) were: Confrontive Coping, described aggressive efforts to change the situation (e.g., "I did something that I didn't think would work, but at least I was doing something"), Distancing, described efforts to detach and to minimize the significance of the situation (e.g., "I went along with fate; sometimes I have bad luck"), Self-Control, described limiting one's feelings and actions (e.g., "I tried not to burn my bridges, but leave things open somewhat"), Seeking Social Support, described efforts to get support (e.g., "I tried to talk someone to find out more about the situation"), Accepting Responsibility, described acknowledging one's role withing a problem (e.g., "I criticized or lectured myself"), Escape-Avoidance (e.g., "I hoped for a miracle"), Planful Problem Solving, described problem-focused efforts to change a situation (e.g., "I made a plan of action and followed it), and Positive Reappraisal, described efforts to look at the positives within a situation (e.g., "I was inspired to do something creative about the problem").

To score the Ways of Coping Questionnaire, the raw score was added for each item on the scale to get a total score. Raw scores indicated the coping effort for each of the eight types of coping. High raw scores described how often the participant used the behaviors described by that scale in coping with a stressful event (Folkman & Lazarus, 1988). Relative scores described the proportion of effort represented for each type of coping and were computed into a percentage that ranges from 0 to 100. A high relative score on a scale meant that the participant used those coping behaviors more often than

they used other behaviors (Folkman & Lazarus, 1988). For purposes of this study we computed the relative and raw scores. The item "the idea of having surgery bothers me because..." Reliability was evaluated by the internal consistency of the coping measures, estimated with Cronbach's coefficient alpha (Folkman & Lazarus, 1988). Factor analysis produced eight scales: confrontive coping, $\alpha = .70$; distancing, $\alpha = .61$; self-control, $\alpha = .70$; seeking social support, $\alpha = .76$; accepting responsibility, $\alpha = .66$; escape-avoidance, $\alpha = .72$; planful problem solving, $\alpha = .68$; and positive reappraisal, $\alpha = .79$ (Folkman, et al., 1986). Correlations between these scales range from .11 at the mid-displacement and .30 at the end-displacement.

The items of the Ways of Coping Questionnaire contained face validity in that the strategies described were those that individuals have reported using to cope with the demands of stressful situations (Folkman & Lazarus, 1988). Construct validity was evidenced in that the results are consistent with research on coping (Folkman & Lazarus, 1988). Because the WOCQ measured coping processes, which are variable, traditional test-retest estimates of reliability were inappropriate (Bourjally, 1998).

The Measure of Body Apperception: The Measure of Body Apperception (MBA) consisted of eight first-person statements that respondents rated on a 4-point Likert scale (1= strongly agree, 4= strongly disagree) (Carver, et al., 1998). The MBA assessed two aspects of investment in, or concern about, body image. These two distinct factors emerged from psychometric testing which accounts for 52.2 % of the variance. The first factor reflected the idea that feeling good about oneself depended on one's body integrity, Concern About Body Integrity ($\alpha = .53$). The other factor reflected the idea that feeling good about oneself depended on one's physical appearance, Concern About Appearance

($\alpha = .78$) (Carver et al., 1998). Examples of items from each factor are as follows. more
Concern About Body Integrity subscale was “the idea of having surgery bothers me
because it means doing damage to my body.” An example of an item from the Concern
About Appearance subscale was “I have to look as good as I can to others in order to feel
right about myself.”

A student sample in psychometric testing produced test-retest correlations of
better than .75 for each subscale over a period of four weeks (Carver, et al., 1998). For
cancer patients, correlations between these scales were .41 at the initial assessment and
.36 in a follow-up assessment. The test-retest reliability for Concern About Appearance
was reasonably high, .67, but for Concern About Body Integrity was only .39 (Carver, et
al., 1998). The low retest reliability of the scale measuring Concern about Body Integrity
may suggest that women change their body image perceptions after the start of treatments
and that the value of body integrity may change with time (Carver, et al., 1998).

A composite score of the two subscales was utilized in this study using median
splits to break people into higher and lower body image categories.

Stage of Breast Cancer

The definition of one's stage of breast cancer is the extent to which the tumor has
spread to regional lymph nodes or other organs of the body. Stages range from 0 to IV.
Stage 0 is defined as no evidence of tumor; Stage 1 is defined as the tumor is 2cm or less
in greatest dimension; Stage II is defined as the tumor is more than 2cm but not more than
5cm in greatest dimension; Stage III is defined as the tumor is more than 5cm in greatest
dimension; and Stage IV is defined as a tumor of any size with direct extension to either

the chest wall, the skin, or is Inflammatory Carcinoma. Please see chapter one for more detail. This data was obtained by the office staff and/or physician to which the patient belonged. All staging information was kept confidential to protect the anonymity of the patient.

Demographic Questionnaire

The demographic questionnaire was used to collect information regarding the type of community the patient lived in, annual household income, age, gender, racial or ethnic identification, highest level of education, occupation, religious preference, how often the patient attended religious activities per month, marital status, if the patient had children and how many, type of insurance the patient had, original site of the patients' cancer, type of surgery received, type of adjuvant treatment(s) received, time since original diagnosis, whether patient was aware of stage of disease and if so what stage (0-4).

Procedure

Participants were recruited from Cancer Specialists Inc. and the University of Oklahoma Adult Medicine Clinics. At the check-in window of each clinic, there was a sign "Body Image and Coping With Breast Cancer Study" with the investigator's name and school. As each patient arrived for her doctor's appointment or treatment, she was informed about the study which was a Master's thesis project on body image and coping with breast cancer. If the patient was interested in participating, purely voluntarily and with no penalty for nonparticipation, the patient was handed a packet to complete in the waiting room. Patients were informed that they would receive \$3.00 upon completion of

the packet. When each packet was returned, office staff wrote the patient's stage of breast cancer on the outside of the packet immediately and remitted the \$3.00.

The packets included an Informed Consent Form which incorporated permission to receive the patients' stage of breast cancer information from their clinics, the Cancer Behavior Inventory (CBI, Merluzzi & Sanchez, 1997), the Ways of Coping Questionnaire, (Folkman & Lazarus, 1988), the Measure of Body Apperception (MBA, Carver, et al., 1998), and a Resource List for counseling sources.

Those who agreed to participate indicated their agreement by signing and returning the informed consent with their completed packets. When the packets were returned, the informed consent sheet was separated from the rest of the materials and stored in a separate file to ensure the confidentiality of the participants' responses.

Design of the Study

Due to the small sample size, the original design of the study was altered in order to be able to perform the analyses. Therefore, a series of one-way ANOVAs to explore racial differences in body image perceptions, coping, and self-efficacy in coping were ran as well as a series of one-way ANOVAs exploring differences between women of higher and lower perceptions of body image in the way they cope and their self-efficacy in coping with breast cancer. Total and subscale scores were used in the analyses.

1a. A one way ANOVA was conducted to explore mean differences in overall self-efficacy scores by body image perceptions (higher and lower).

1b. A one way ANOVA was conducted to explore mean differences self-efficacy factor scores by body image perceptions (higher and lower).

2a. A one way ANOVA was conducted to explore the mean differences in overall coping style by body image perceptions (higher and lower).

2b. A one way ANOVA was conducted to explore mean differences in relative scores by body image perceptions (higher and lower).

3a. A one way ANOVA was conducted to explore mean differences in overall self-efficacy scores by race (White women and Women of Color).

3b. A one way ANOVA was conducted to explore mean differences in self-efficacy using factor scores by race (White women and Women of Color).

4a. A one way ANOVA was conducted to explore mean differences in overall coping styles by race (White women and Women of Color).

4b. A one way ANOVA was conducted to explore mean differences in coping styles using relative scores by race (White women and Women of Color).

5. A one way ANOVA was conducted to explore the mean differences in body image perceptions by race (White women and Women of Color).

RESULTS *(lower) with coping styles as defined*

Analyses were conducted with sixty-five women diagnosed with breast cancer. Participants were classified into either Higher or Lower Body Image Perception categories using median splits on the Measure of Body Apperception (MBA). The possible range of scores on the MBA was 8 to 32. The MBA median score for this sample was 21 ($m = 20$, $sd = 6.03$), with the participants' scores ranging from 8 to 30. Participants with MBA scores of 20 or less were classified in the Lower Body Image Perception category ($n = 31$); participants with MBA scores of 21 or higher were classified in the Higher Body Image Perceptions category ($n=34$).

Due to the small sample size, it was not possible to conduct the 2 (race) by 2 (higher and lower body image perceptions) multivariate analyses (MANOVA) originally proposed for this study. In particular, there were not enough Women of Color with higher body image perceptions ($n=13$) and the lower body image perceptions ($n=9$) to conduct the 2x2 MANOVA analyses. It should be noted that there were 22 White women with higher body image perceptions and 21 White women with lower body image perceptions. See tables 8 and 9 for the means and standard deviations for self-efficacy in coping total scores and coping total scores for race by body image perceptions. Given the inadequate number of participants in two of the four cells to analyze the data using the 2x2 MANOVA procedure, a series of one-way ANOVAs were conducted instead. The research findings will be presented and organized by the original research questions of this thesis project.

Research Question 1a: What is the relationship of race (White versus Women of Color) and body image perceptions (Higher versus Lower) with coping styles as defined by the Ways of Coping Questionnaire (i.e., total score, confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal) for women diagnosed with breast cancer?

To answer research question 1a, two separate series of one-way ANOVAs were conducted for coping styles (total and relative scores) by race (Women of Color versus White Women) and for coping styles (total and relative scores) by body image perceptions (Higher versus Lower). The dependent variable for these analyses was either the total score of the Ways of Coping Questionnaire or the subscale scores (relative scores).

The results of the first one-way ANOVA for total coping style scores by race indicated no significant mean differences in overall coping styles, $F(1,63) = .073, p = .787$. See Table 2 for the means and standard deviation scores for coping by race. The results of the second one-way ANOVA for total coping style scores by body image perception levels indicated no significant findings, $F(1,63) = .000, p = .999$. See Table 3 for the means and standard deviation scores for overall coping styles by body image perception levels.

The results of the one-way ANOVAs for the coping style subscales, or relative scores, by race indicated no significant differences. The results of the one-way ANOVAs for coping relative subscales by body image perception indicated one significant finding for Escape-Avoidance ($F(1,62) = 4.684, p = .034$). Thus, women with lower body image perceptions were more likely to engage in "wishful thinking" and to avoid problems in

general (Escape-Avoidance coping style) than women with higher body image perceptions.

Research Question 1b: What is relationship of race (White women vs. Women of Color) and body image perceptions (Higher and Lower) with self-efficacy in coping as defined by the Cancer Behavior Inventory (i.e. maintenance of activity and independence, coping with treatment related side effects, accepting cancer/maintain a positive attitude, seeking and understanding medical information, affective regulation, seeking social support, and stress management for medical appointments) for women diagnosed with breast cancer?

To answer research question 1b two separate series of one-way ANOVAs were conducted, one for self-efficacy in coping (total and factor scores) by race (Women of Color versus White Women) and one for self-efficacy in coping (total and factor scores) by body image perception (Higher versus Lower). The dependent variable for these analyses was either the total score of the Cancer Behavior Inventory or the subscales (factor scores).

The results of the first one-way ANOVA for self-efficacy in coping scores by race indicated no significant mean differences in overall self-confidence in coping, $F(1,63) = .001, p = .974$. See Table 4 for the means and standard deviation scores for self-efficacy in coping total scores by race. The results of the second one-way ANOVA for total self-efficacy in coping scores by body image perception levels indicated significant findings, $F(1,63) = 12.099, p = .001$. Thus, women with higher body image perceptions had higher levels of self-confidence in coping with breast cancer compared to women with lower levels of body image perception. See Table 5 for the means and standard deviation scores

for self-efficacy in coping by body image perception levels.

The results of the one-way ANOVAs for the self-efficacy subscales (factor scores) by race indicated no significant differences. However, the results of the one-way ANOVAs for each of the self-efficacy subscales (factor scores) by body image perception indicated significant findings for the following subscales: Maintenance of Activity and Independence ($F(1, 63) = 6.171, p = .016$), Coping with Treatment Related Side Effects ($F(1, 63) = 9.637, p = .003$), Accepting Cancer/Maintaining a Positive Attitude ($F(1, 63) = 4.963, p = .029$), Seeking and Understanding Medical Information ($F(1, 63) = 18.013, p = .000$), Seeking Support ($F(1, 63) = 7.613, p = .008$), and Stress Management for Medical Appointments ($F(1, 63) = 11.655, p = .001$). Affective Regulation was the only subscale (factor score) that did not significantly differ by body image perception levels for this sample of women diagnosed with breast cancer. Therefore, women with higher body image perceptions felt more confident in their ability to maintain a daily routine, cope with hair loss and other treatment related side effects, actively participate in treatment decisions, seek information about cancer, share feelings and concerns with others, and remain relaxed while waiting for a doctor's appointment compared to women with lower body image perceptions.

Research Question 2a: What is the relationship of race (African American vs. Latina vs. Asian American vs. Native American) and body image perceptions (Higher vs. Lower) with coping styles as defined by the Ways of Coping Questionnaire (i.e. confrontive coping, distancing, self-controlling, seeking social support, and stress management for medical appointments) for Women of Color diagnosed with breast cancer ?

Due to the current small sample size and the few ethnic minority women in the participant pool, these analyses were not conducted.

Research Question 2b: What is the relationship of race (African American vs. Latina vs. Asian American vs. Native American) and body image perceptions (Higher vs. Lower) with self-efficacy in coping as defined by the Cancer Behavior Inventory (i.e. maintenance of activity and independence, coping with treatment related side effects, accepting cancer/maintaining a positive attitude, seeking and understanding medical information, affective regulation, seeking social support, and stress management for medical appointments) for Women of Color diagnosed with breast cancer?

Due to the small sample size and the few ethnic minority women in the participant pool, these analyses were not conducted.

Research Question 3: Do white women and women of color differ in their body image perceptions?

To answer question 3 a one-way analysis of variance (ANOVA) was conducted, with race (White Women versus Women of Color) as the independent variable and total score on body image perceptions as the dependent variable. The results of this one-way ANOVA for body image perceptions by race indicated no significant findings, $F(1,63) = .745, p = .391$. See Table 6 for the means and standard deviation scores for body image perceptions by race.

Research Question 4: Do women of color in different ethnic groups differ in their body image perceptions?

Due to the small sample size and the few ethnic minority women in the current

Due to the small sample size and the few ethnic minority women in the current participant pool, these analyses were not conducted.

For exploratory purposes correlational analyses were conducted to examine the relationships among self-efficacy in coping, coping, body image perceptions, and other continuous demographic variables including age, income, education, and stage of breast cancer. There were significant positive correlations between the following variables: body image perception and education level ($r = .51, p < .01$), self-efficacy in coping and income level ($r = .25, p < .05$), and self-efficacy in coping and body image perception ($r = .27, p < .05$). There were negative correlations between the following variables: income level and stage of breast cancer ($r = -.28, p < .05$), body image perception and age ($r = -.27, p < .05$), and self-efficacy in coping and stage of breast cancer ($r = -.26, p < .05$). See Table 7 for the correlation matrix of these variables.

CHAPTER FIVE

DISCUSSION

One of the main findings of this study for this sample of women diagnosed with breast cancer was the lack of significant racial differences between White women and Women of Color in their body image perceptions, their self-efficacy in coping, and their coping strategies. Another fascinating finding was that the women in this sample with higher and lower body image perceptions significantly differed on overall self-efficacy in coping. Furthermore, every subscale of the Cancer Behavior Inventory which measures self-efficacy in coping with cancer was significantly related to body image perceptions (i.e., Maintenance of Activity and Independence, Coping with Treatment Related Side Effects, Accepting Cancer/Maintaining a Positive Attitude, Seeking and Understanding Medical Information, Seeking Support, and Stress Management for Medical Appointments), save one, Affective Regulation. In previous research, self-efficacy in coping was found to have a strong positive correlation with quality of life and mood in breast cancer patients (Cunningham, Lockwood, & Cunningham, 1991). Penman et al. (1987) found locus of control best predicted body image and feminine self-image, among other variables. Thus, the findings of this study concur with and augment these previous findings.

In regards to percentage of effort used in a particular coping style, women with higher and lower body image perceptions significantly differed in their use of Escape-Avoidance strategies. Women with lower body image perceptions used significantly more escape-avoidance strategies, on average, than the higher body image perception group. It

is interesting that no other coping styles, nor overall coping effort, significantly related to body image or race. Again, there are no previous research findings. The current findings of this study do not support the few investigations on ethnicity and coping with cancer as most investigators have found a strong relationship between ethnicity and religion as a style of coping (Ashing-Giwa & Ganz, 1997; Bourjaily, 1998; Mathews et al., 1994; and Mickley & Soeken, 1993), and between ethnicity and health beliefs (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Chavez et al., 1995; Chavez, Mishra, & Valdez, 1996; Mathews, Lannin, & Mitchell, 1994; and Powell, 1994). This is the first study of its kind in exploring racial differences in general coping strategies, self-efficacy in coping, and body image perceptions in women diagnosed with breast cancer. Therefore comparisons in this area can not be made given the paucity of research in this area. Unfortunately, the small sample size prevented in-depth analysis across racial groups (e.g. African-American, Latina, Asian-American, and Native American) for coping, body image, and self-efficacy in coping. Furthermore, amassing women from differing racial groups into one group, Women of Color, may have had an effect on the findings, possibly washing out any significant differences across racial groups with regard to these variables.

Although it was not statistically analyzed, when examining the groups separately, more than half of Women of Color in this sample fell in the higher body image category while White women were evenly split between higher and lower body image perceptions. Women of Color may have higher perceptions of body image, although it is stressed that this was not a statistically significant finding. If the sample were larger perhaps, this

difference would increase so that Women of Color and White women would indeed significantly differ on body image perceptions. Again, there are no previous research findings regarding Women of Color and body image perceptions after the diagnosis of breast cancer, and so the findings of this study add meaningful information to the research literature. It is possible that Women of Color may interpret body image perceptions differently depending on the racial or ethnic group with whom they identify. Further research needs to explore racial identity and/or acculturation and its relation to coping, self-efficacy in coping, and body image in this population. Better measures of race are clearly needed.

In previous research examining middle class White women, body image perceptions were significantly related to the procedure or treatment that women underwent for breast cancer such as mastectomy or lumpectomy, and how one felt about one's body previous to the diagnosis of breast cancer (Moyer, 1997; Penman et al., 1987; Powell, 1994). Although not reported in the correlation matrix, there was no significant relationship found between body image perceptions and type of procedure in this sample. However, the research did support previous findings that age and body image were negatively correlated (Carver et al, 1997, Penman et al 1987) meaning that younger women had higher body image perceptions than older women. Related to issues of body image, Penman et al. (1987) found that age was related to intimacy concerns, in that women in their fifties and sixties were less likely to express intimacy concerns than women younger than fifty. Moyer (1997) reported that younger and older patients may have different responses to surgical treatments. Younger patients in Moyer's study reacted

more negatively to mastectomy than older patients who reacted more negatively toward BCT. self-efficacy, and body image perceptions in breast cancer patients. As mentioned above, Some other interesting findings were the relationships among the variables in this study. Income and stage of disease were negatively correlated. This finding is not surprising, as previous research indicated that women without medical insurance, whom are less educated, and lower income individuals may not receive proper or early enough medical care to diagnose cancer in the earlier stages due to their view of cancer as a "death sentence" (Ashing-Giwa & Ganz, 1997; Mathews et al., 1994). Ethnicity or race was not correlated to stage in this study, although previous research has expounded upon this issue (Caplan et al., 1995; Delgado, Lin, & Coffey, 1995; Gordon et al., 1992; Howard, Penchansky, & Brown, 1998; Sanchez, 1996; Sondik, 1994).

Education and body image perception were positively correlated, indicating that women who had obtained higher levels of education had higher body image perceptions compared to women who had received less education. One possible explanation for this finding could be that women who have more education may feel that a woman's appearance may not be as important as intellectual endeavors, for instance. Another possible explanation could be that women who have more education may feel more comfortable in seeking medical information which could lead to possible medical options such as breast reconstruction.

Implications for Further Research

Although the psychological impact of breast surgeries and breast cancer has been studied for twenty years or so, there are still very few studies that have examined racial

differences (e.g., compare Black, Hispanic, Asian, White and Native American groups) in coping, self-efficacy, and body image perceptions in breast cancer patients. As mentioned above, small sample size limited the analyses that could be conducted and interpreted. In particular, more Women of Color were needed to perform the analyses that were originally proposed. Even so, the sample indicated that there is more to examine as tendencies were seen toward differences among White women and Women of Color.

Implications for Practice

Mental health professionals could benefit from the findings of this study and its implications in counseling women diagnosed with breast cancer. Given the findings based on this small sample, it is possible that race may not be as important in understanding coping and self-efficacy in coping with breast cancer patients in this study as are body image perceptions (and/or possibly age). In other words, race may not be as associated with confidence in oneself to cope as how one perceives one's body either before, after, or during an illness such as breast cancer. Counselors, therefore, need to focus on how women feel about their bodies due to the fact that feeling good about one's body will influence how confident one feels in dealing with breast cancer. Empowerment and confidence building may need to be addressed, therefore, in conjunction with body image issues.

Nonetheless, this does not minimize the importance of understanding how race impacts women's beliefs about their breast cancer, about the medical profession and their medical care, and ultimately, the impact of counseling and outreach interventions to improve women's coping and confidence in coping with breast cancer. When counselors

have clients of diverse racial backgrounds, it is always important to understand and be knowledgeable regarding their clients' cultures. Health beliefs have been shown to be culturally influenced (Ashing-Giwa & Ganz, 1997; Baider & Sarell, 1983; Chavez et al., 1995; Chavez, Mishra & Valdez, 1996; Fulton, Rakowski & Jones, 1995; Mathews, Lannin & Mitchell, 1994; Powell, 1994) and therefore counseling Women of Color or any woman belonging to a culturally different group should be conducted with sensitivity and a strong knowledge of multicultural counseling.

Unfortunately, there were not enough participants to explore the possible interaction between race and body image perceptions on coping and self-efficacy in coping. More research is needed to understand important variables that can influence patients' ability to cope and adjust to breast cancer diagnoses and treatment, including demographic and identity characteristics including race, age, socioeconomic status, and body image identity.

Limitations of the Study

The main limitation of this study was the small sample size. More specifically, more Women of Color need to be recruited to further explore the variables as originally proposed. Many of the proposed analyses unfortunately could not be conducted. Furthermore, collapsing women from differing racial groups into one group, Women of Color, may lead to the assumption that Women of Color have similar experiences with regard to body image perception, coping, and self-efficacy in coping which may not be true. Therefore, a limitation of the study was that the measurement of race and the impact of race was limited in how well the differences between women even within one racial

group (e.g., Mexican, Salvadoran, Ecuadorian) were measured. Another possible limitation of this study was the area in which participants were recruited. These participants were recruited from a metropolitan area in a southwestern state. Therefore, it is possible that the results do not generalize to breast cancer patients in other geographic regions of the United States. In addition, given that the focus of this study was on women diagnosed with breast cancer, these findings cannot be generalized to men diagnosed with this disease. Furthermore, the majority of the sample was diagnosed with Stage I or II breast cancer. Therefore, it is possible that coping styles, body image, and self-efficacy in coping might be different in the later stages compared to the earlier ones, although the findings did find significance between stage and self-efficacy, and stage and income.

Another limitation of this study was the inability to assess for body image perceptions prior to as well as after the diagnosis of breast cancer. Therefore, it was unclear how these women felt about their bodies before they were treated for breast cancer. One of the interesting studies involving body image perceptions was able to assess regard toward one's body prior to surgery and treatments (Penman et al., 1987). They found that women who suffered from low self-image prior to their diagnosis continued to feel negatively toward their body after the diagnosis of breast cancer compared to women with high self-image. To date research on body image perceptions have included general measures of body image, rather than measures specific to breast cancer patients. More research is needed to develop reliable, valid, and meaningful measures for body image perceptions among breast cancer patients.

Finally, running a number of one-way ANOVAs could increase the likelihood of finding significance when it might not really exist (increasing Type I error). Therefore, these results should be interpreted with caution. More research with larger samples of women and men diagnosed with breast cancer is recommended to further study these very important variables.

Summary

In summary, it is possible that race may not be associated with the ways women cope, feel confident in coping, nor how they perceive their bodies in women diagnosed with breast cancer. How confident women in this study feel in coping with cancer is significantly related to how they perceive their bodies--how the body appears to oneself and to others, and the integrity of the body as a functioning entity. Counselors therefore may need to focus on body image perceptions as an important aspect related to confidence building and empowerment so that patients feel better to cope with the demands that the diagnosis of breast cancer heralds.

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APPENDIX

TABLE

Table 1

Demographics of Women With Breast Cancer Participants

Variable	β	N	Percent
Age		44	67.7%
Marital status			21.5%
Married			
Widowed			
Single			7%
Divorced			21.5%

APPENDIX A

TABLES

Table 1**Demographics of Women With Breast Cancer Participants (continued).**

<u>Variable</u>	<u>Response</u>	<u>N</u>	<u>Percent</u>
Race	White	44	67.7%
	African American	14	21.5%
	Asian/Pacific Islander	1	1.5%
	Native American	5	7.7%
Age	30 years to 40 years	2	3%
	41 years to 50 years	12	18.4%
	51 years to 60 years	18	27.6%
	61 years to 70 years	14	21.4%
	71 years to 80 years	6	9.1%
	81 years and up	2	3%
	Age omitted by participant	11	16.9%
Level of Education	Did not complete High School	7	10.8%
	GED or equivalent	4	6.2%
	High School Graduate	26	40.0%
	Some College	17	26.2%
	Bachelor's Degree	6	9.2%
	Masters Degree or PhD	3	4.6%

Table 1*Demographics of Women With Breast Cancer Participants (continued)***Demographics of Women With Breast Cancer Participants (continued).**

<u>Variable</u>	<u>Response</u>	<u>N</u>	<u>Percent</u>
Marital Status	Separated	1	1.5%
(continued)			
Annual Household Income	Less than \$10,000	9	13.8%
Women who have children	\$10,000 to \$15,001	11	16.9%
	\$15,001 to \$20,000	8	12.3%
	\$20,001 to \$25,000	5	7.7%
	\$25,001 to \$30,000	8	12.3%
	\$30,001 to \$40,000	8	12.3%
	\$40,001 to \$50,000	5	7.7%
	\$50,001 to \$60,000	3	4.6%
	\$90,001 or higher	7	10.8
Type of Insurance Owned	HMO	26	40%
	PPO	9	13.8%
	Medicare	16	24.6%
	Medicaid	4	6.2%
	None	5	7.7%
Marital Status	Single	3	4.6%
	Partnered	3	4.6%
	Married	35	53.8%
	Divorced	11	16.9%

Table 1
Demographics of Women With Breast Cancer Participants (continued)

Variable	Response	N	Percent
Marital Status (continued)	Separated	1	1.5%
	Widowed	11	16.9%
Women who have children	Yes	62	95.4%
	No	3	4.6%
Type of Community	Urban City	35	53.8%
	Suburb	10	15.4%
	Rural Area	19	29.2%
	Reservation	0	0
Stage of Cancer	Stage I	20	30.8%
	Stage II	27	41.5%
	Stage III	9	13.8%
	Stage IV	7	10.8%
Time Since Diagnosis	<2 months ago	2	3.1%
	<6 months ago	10	15.4%
	<1 year ago	18	27.7%
	<2 years ago	6	9.2%
	>2 years ago	27	41.5%

Table 1**Demographics of Women With Breast Cancer Participants (continued)***Means and Standard Deviations for Overall Coping Style (Total WOCO Raw Scores) by*

Variable	Response	N	Percent
<i>Race (White Women and Women of Color) (N=65)</i>			
Treatments Received	Lumpectomy	19	29.2%
	Mastectomy	39	60.0%
	Chemotherapy	37	56.9%
	Radiation	26	40.0%
	Tamoxifen	25	38.5%
	Other	10	15.4%

*7 Women failed to report which surgery they had

Table 2

Means and Standard Deviations for Overall Coping Style (Total WOCQ Raw Scores) by Race (White Women and Women of Color) (N=65).

		<u>Ways of Coping Questionnaire</u>			
<u>Race</u>		<u>M</u>	<u>SD</u>	<u>SD</u>	<u>N</u>
White Women		74.77		35.12	43
Women of Color		72.38		30.65	22

WOCQ=Ways of Coping Questionnaire

Total WOCQ Raw Scores can range from 0 to 264

Table 3

Means and Standard Deviations of Overall Coping Styles (Total WOCQ Raw Scores) by Body Image Perceptions (Higher and Lower) (n=65).

<u>Body Image Perception</u>	<u>Ways of Coping Questionnaire</u>		
	<u>Mean</u>	<u>SD</u>	<u>N</u>
Lower	73.95	34.98	31
Higher	73.97	32.53	34

Lower body image perception=MBA score < 21

Higher body image perception=MBA score > 20

WOCQ=Ways of Coping Questionnaire

MBA=Measure of Body Apperception

Range of scores possible for the WOCQ: 0 to 264

Range of scores possible for the MBA: 8 to 32

Table 4

Means and Standard Deviations for Overall Self-Efficacy in Coping (Total Scores for CBI) by Race (White Women and Women of Color) (n=65).

Race	Cancer Behavior Inventory				N
	M	SD	SD	SD	
White Women	233.63	50.82			43
Women of Color	233.17	62.00			22

CBI=Cancer Behavior Inventory

Possible range of scores for CBI: 33 to 297

Table 5

Means and Standard Deviations in Overall Self-Efficacy in Coping by Body Image Perceptions (Higher and Lower) (n=65)

<u>Body Image Perception</u>	<u>Cancer Behavior Inventory</u>				<u>N</u>
	<u>M</u>	<u>SD</u>	<u>SD</u>	<u>N</u>	
Lower	210.80		53.10		31
Higher	254.16		47.39		34

Lower Body Image Perception=MBA score < 21

Higher Body Image Perception=MBA score > 20

CBI=Cancer Behavior Inventory

MBA=Measure of Body Apperception

Possible Range of Scores for CBI: 33 to 297

Possible Range of Scores for MBA: 8 to 32

Table 6

Means and Standard Deviations for Body Image Perceptions (Total MBA Scores) By Race (White Women and Women of Color) (n=65).

<u>Race</u>	<u>Measure of Body Apperception</u>		
	<u>M</u>	<u>SD</u>	<u>N</u>
White Women	19.86	5.70	43
Women of Color	21.23	6.67	22

MBA=Measure of Body Apperception

Possible Range of Scores for MBA: 8 to 32

Table 7

Correlation Matrix of Demographic Variables and MBA, CBI, and WOCQ Total Scores

	<u>Age</u>	<u>Stage</u>	<u>Income</u>	<u>Ed.</u>	<u>MBA</u>	<u>CBI</u>	<u>WOCQ</u>
Age	1.000						
Stage	-.258	1.000					
Income	-.129	-.286*	1.000				
Education	-.190	-.030	.516**	1.000			
MBA	-.272*	.026	.155	.357**	1.000		
CBI	-.103	-.260*	.253*	.170	.277*	1.000	
WOCQ	-.087	.234	.022	.026	.078	.052	1.000

*.05 significance; **.01significance

Ed.-Education Level

MBA-Measure of Body Apperception

CBI-Cancer Behavior Inventory

WOCQ-Ways of Coping Questionnaire

Table 8

Means and Standard Deviations of the Overall Self-Efficacy in Coping (CBI Total Scores) by race (White Women vs. Women of Color) and Body Image Perceptions (Higher vs. Lower)

		<u>Mean</u>	<u>SD</u>	<u>N</u>
White Women	Lower Body Image Perception	219.45	48.90	22
	Higher Body Image Perception	248.49	49.59	21
Women of Color	Lower Body Image Perception	189.64	59.89	9
	Higher Body Image Perception	263.31	43.95	13
Total Sample	Lower Body Image Perception	210.80	53.10	31
	Higher Body Image Perception	254.15	47.39	34

Lower Body Image Perception=MBA scores<21

Higher Body Image Perception=MBA scores>20

MBA=Measure of Body Apperception

CBI=Cancer Behavior Inventory

Range of scores for CBI: 33-297

Table 9

Means and Standard Deviations of Overall Coping (WOCQ Raw Scores) by Race (White Women vs. Women of Color) and Body Image Perceptions (Higher vs. Lower)

	<u>Mean</u>	<u>SD</u>	<u>N</u>
White Women			
Lower Body Image Perception	77.48	36.36	22
Higher Body Image Perception	71.93	34.44	21
Women of Color			
Lower Body Image Perception	65.33	31.61	9
Higher Body Image Perception	77.25	30.25	13
Total Sample			
Lower Body Image Perception	73.95	34.98	31
Higher Body Image Perception	73.97	32.53	34

Lower Body Image Perception=MBA scores <21

Higher Body Image Perception=MBA scores >20

MBA=Measure of Body Apperception

WOCQ=Ways of Coping Questionnaire

Range of scores possible for WOCQ= 0 to 264

Range of scores possible for MBA= 8 to 32

DEMOGRAPHIC SHEET

1. In what

community do you live? (Circle number)

1 City of more than 50,000

2 Next to city of 50,000 or more

3 Less than 50,000

2. Your age

years (Circle number)

3. What is your current

status?

1 Married

2 Sex (Circle number)

1 Male

2 Female

5. What

best describes your race or ethnicity?

1 White

APPENDIX B

DEMOGRAPHIC FORM

DEMOGRAPHIC SHEET

1. In what type of community do you live? (Circle number)
 - 1 Urban city (city of more than 50,000)
 - 2 Suburb (area next to city of 50,000 or more)
 - 3 Rural area (town less than 50,000)
 - 4 Reservation
2. Your present marital status. (Circle number)
 - 1 Single
 - 2 Partnered (living with partner)
 - 3 Married
 - 4 Divorced
 - 5 Separated
 - 6 Widowed
3. What is your current age? _____
4. Your sex. (Circle number)
 - 1 male
 - 2 female
5. Which of the following best describes your race or ethnic group?
(Circle all that apply)
 - 1 Hispanic
 - 2 White
 - 3 African-American
 - 4 Asian/Pacific Islander
 - 5 Native American, Tribal Affiliation _____
 - 6 Other _____
6. Which of the following best describes your present household income? (Circle number)

1 Less than \$10,000	7 \$40,001 to \$50,000
2 \$10,001 to \$15,000	8 \$50,001 to \$60,000
3 \$15,001 to \$20,000	9 \$60,001 to \$70,000
4 \$20,001 to \$25,000	10 \$70,001 to \$80,000
5 \$25,001 to \$30,000	11 \$80,001 to \$90,000
6 \$30,001 to \$40,000	12 \$90,001 or more per year
7. Do you have children? If so, how many? _____
 - 1 yes
 - 2 no
8. What type of insurance do you have?
 - 1 HMO (Health Maintenance Organization) example: Secure Horizons
 - 2 PPO (Preferred Provider Organization) example: Cigna
 - 3 Private insurance example: Health Choice or Wausau
 - 4 Medicare
 - 5 Medicaid
 - 6 None

9. What is your occupation? _____ of your cancer? (Circle number)
 1 _____ 5 Cervix/Uterine/Ovarian
10. What is the highest level of education completed? (Circle number)
 1 did not complete high school Leukemia (Blood)
 2 GED, or equivalent 8 Lymphoma-Type _____
 3 High school graduate 9 Brain
 4 some university education
 number of years _____
 5 Bachelor's Degree
 6 Master's Degree
 7 Doctoral Degree
11. What is your religious affiliation? _____
12. How strongly do you agree with the beliefs of your religion?
 1 strongly agree 4 somewhat disagree
 2 agree 5 disagree
 3 agree somewhat 6 strongly disagree
13. How many times per month do you attend religious activities/services? _____
14. Which of the following treatments have you received? (Circle all that apply)
 1 Lumpectomy (Segmentectomy)
 2 Mastectomy
 3 Chemotherapy
 4 Radiation Therapy
 5 Tamoxifen
 6 Other _____
15. How long has it been since the diagnosis of cancer was made? (Circle number)
 1 Less than 2 months ago. 4 Less than 2 years ago
 2 Less than 6 months ago. 5 More than 2 years ago
 3 Less than 1 year ago.
16. Do you know what stage your cancer is in? (Circle if you do, if not leave blank)
 1 Stage 0
 2 Stage I
 3 Stage II
 4 Stage III
 5 Stage IV (Metastatic Disease)

17. What was the original site of your cancer? (Circle number)

1 Breast

2 Lung

3 Prostate

4 Colon/Rectal

5 Cervix/Uterine/Ovarian

6 Stomach/Intestine

7 Leukemia (Blood)

8 Lymphoma-Type_____

9 Brain

APPENDIX

INDEX

CANCER BEHAVIOR INVENTORY

for
treatment
you can
consider
consider

naire contains many things that a person might d when receiving
We are interested in your judgement of how confident you are that
those things. Make sure your ratings accurately reflect your
not you have done it in the past. So, your ratings reflect your
to do these things now (or in the near future)

now your
any way
what you
are doing
and how

things that you. This rate that item on how confident you are
that behavior. It is a number on the scale. If you quite a bit
but you are not at all confident that you can accomplish that
a 100% you would be stating that are totally confident that you
behavior. The items in the middle of scale indicate that you are
about you are a mixture of that behavior.
items are not are not are. If unsure please rate it as best

Marshall, A. J. (1998)

SPRING 1999

APPENDIX C

INSTRUMENTS

TOGETHER

CONCEPTS

8-10-99

TOGETHER

CONCEPTS

8-10-99

TOGETHER

CONCEPTS

8-10-99

8-10-99

8-10-99

CANCER BEHAVIOR INVENTORY

5. ~~Ask~~ This questionnaire contains many things that a person might do when receiving treatment for cancer. We are interested in your judgement of how confident you are that you can accomplish those things. Make sure your ratings accurately reflect your confidence whether or not you have done it in the past. So, your ratings reflect your confidence that you can do these these things now (or in the near future).

Please read each numbered item. Then rate that item on how confident you are that you can accomplish that behavior. Circle a number on the scale. If you circle a "1" you would be stating that you are not at all confident that you can accomplish that behavior. If you circle a "9" you would be stating that you are totally confident that you can accomplish that behavior. Numbers in the middle of the scale indicate that you are moderately confident that you can accomplish that behavior.

Please rate all the items. If you are not sure about an item please rate it as best you can.

1. Maintaining independence.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8 9

2. Maintaining a positive attitude.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8 9

3. Accepting that I have cancer.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8 9

4. Maintaining work activity.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8 9

5. Asking nurses questions.

12. Remaining relaxed throughout treatment (chemotherapy, radiation).

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

6. Remaining relaxed throughout treatments and not allowing scary thoughts to upset me.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

7. Seeking support from people & groups outside the family.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

8. Maintaining a daily routine.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

9. Asking technologists questions.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

10. Coping with hair loss.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT			TOTALLY CONFIDENT		
1	2	3	4	5	6	7	8	9

11. Using denial.

18. Remaining relaxed throughout treatment (chemotherapy, radiation).
 NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

12. Remaining relaxed throughout treatment (chemotherapy, radiation).

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

13. Coping with physical changes.

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

14. Ignoring things that cannot be dealt with.

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

15. Actively participating in treatment decisions.

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

16. Sharing feelings of concern.

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

17. Remaining relaxed while waiting at least one hour for my appointment.

NOT AT ALL CONFIDENT 1 2 3 MODERATELY CONFIDENT 4 5 6 7 TOTALLY CONFIDENT 8 9

18. Expressing personal feelings of anger or hostility. by cancer treatment.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

19. Seeking information about cancer or cancer treatments.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

20. Expressing negative feelings about cancer. because of chemotherapy, radiation.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

21. Keeping busy with activities.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

22. Finding an escape. (pastimes)

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

23. Reducing any anxiety associated with getting my blood drawn.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

24. Maintaining a sense of humor.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

25. Accepting physical changes or limitations caused by cancer treatment.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

26. Seeking consolation. *active feelings about cancer*

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

27. Reducing any nausea associated with treatment (chemotherapy, radiation).

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

28. Maintaining hope.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

29. Asking physicians questions.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

30. Doing something, anything.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

31. Managing pain.

NOT AT ALL CONFIDENT			MODERATELY CONFIDENT				TOTALLY CONFIDENT	
1	2	3	4	5	6	7	8	9

32. Managing nausea and vomiting.

NOT AT ALL **MODERATELY** **TOTALLY**
CONFIDENT **CONFIDENT** **CONFIDENT**

1 2 3 4 5 6 7 8 9

33. Controlling my negative feelings about cancer.

33. *Controlling my negative feelings about cancer.

WAYS OF COPING QUESTIONNAIRE

To respond to the statements in this questionnaire, you must have a specific stressful situation in mind. Take a few moments and think about the most stressful situation that you have experienced in the *past week*.

By "stressful" we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. The situation may have involved your family, your job, your friends, or something else important to you. Before responding to the statements, think about the details of this stressful situation, such as where it happened, who was involved, how you acted, and why it was important to you. While you may still be involved in the situation, or it could have already happened, it should be the most stressful situation that you experienced during the week.

As you respond to each of the statements, please keep this stressful situation in mind. Read each statement carefully and indicate, by circling 0, 1, 2, or 3, to what extent you used it in the situation.

Key: 0 = Does not apply or not used 1 = Used somewhat
2 = Used quite a bit 3 = Used a great deal

Please try to respond to every question

GO TO NEXT PAGE

WAYS OF COPING QUESTIONNAIRE

0=Does not apply or not used 1=Used somewhat
2=Used quite a bit 3=Used a great deal

- | | | | |
|---|---|---|---|
| 1. I just concentrated on what I had to do next-the next step.....0 | 1 | 2 | 3 |
| 2. I tried to analyze the problem in order to understand it better.....0 | 1 | 2 | 3 |
| 3. I turned to work or another activity to take my mind off things.....0 | 1 | 2 | 3 |
| 4. I felt that time would have made a difference- the only thing was to wait.....0 | 1 | 2 | 3 |
| 5. I bargained or compromised to get something positive from the situation.....0 | 1 | 2 | 3 |
| 6. I did something that I didn't think would work, but at least I was doing something.....0 | 1 | 2 | 3 |
| 7. I tried to get the person responsible to change his or her mind.....0 | 1 | 2 | 3 |
| 8. I talked to someone to find out more about the situation.....0 | 1 | 2 | 3 |
| 9. I criticized or lectured myself.....0 | 1 | 2 | 3 |
| 10. I tried not to burn my bridges, but leave things open somewhat.....0 | 1 | 2 | 3 |
| 11. I hoped for a miracle.....0 | 1 | 2 | 3 |
| 12. I went along with fate; sometimes I just have bad luck.....0 | 1 | 2 | 3 |
| 13. I went on as if nothing had happened.....0 | 1 | 2 | 3 |
| 14. I tried to keep my feelings to myself.....0 | 1 | 2 | 3 |
| 15. I looked for the silver lining, so to speak; I tried to look on the bright side of things.....0 | 1 | 2 | 3 |
| 16. I slept more than usual.....0 | 1 | 2 | 3 |

0=Does not apply or not used 1=Used somewhat
2=Used quite a bit 3=Used a great deal

	0	1	2	3
17. I expressed anger to the person(s) who caused the problem.....0	1	2	3	
18. I accepted sympathy and understanding from someone.....0	1	2	3	
19. I told myself things that helped me feel better.....0	1	2	3	
20. I was inspired to do something creative about the problem.....0	1	2	3	
21. I tried to forget the whole thing.....0	1	2	3	
22. I got professional help.....0	1	2	3	
23. I changed or grew as a person.....0	1	2	3	
24. I waited to see what would happen before doing anything.....0	1	2	3	
25. I apologized or did something to make up.....0	1	2	3	
26. I made a plan of action and followed it.....0	1	2	3	
27. I accepted the next best thing to what I wanted.....0	1	2	3	
28. I let my feelings out somehow.....0	1	2	3	
29. I realized that I had brought the problem on myself.....0	1	2	3	
30. I came out of the experience better than when I went in.....0	1	2	3	
31. I talked to someone who could do something concrete about the problem.....0	1	2	3	
32. I tried to get away from it for a awhile by resting or taking a vacation.....0	1	2	3	
33. I tried to make myself feel better by eating, drinking, smoking, using drugs, or medications,etc.....0	1	2	3	
34. I took a big chance or did something very risky to solve the problem.....0	1	2	3	
35. I tried not to act too hastily or follow my first hunch.....0	1	2	3	
36. I found new faith.....0	1	2	3	
37. I maintained my pride and kept a stiff upper lip.....0	1	2	3	
38. I rediscovered what is important in life.....0	1	2	3	
39. I changed something so things would turn out all right.....0	1	2	3	
40. I generally avoided being with people.....0	1	2	3	

0=Does not apply or not used 1=Used somewhat
2=Used quite a bit 3=Used a great deal

41. I didn't let it get to me; I refused to think too much about it.....0	1	2	3
42. I asked advice from a relative or friend I respected.....0	1	2	3
43. I kept others from knowing how bad things were.....0	1	2	3
44. I made light of the situation; I refused to get too serious about it.....0	1	2	3
45. I talked to someone about how I was feeling.....0	1	2	3
46. I stood my ground and fought for what I wanted.....0	1	2	3
47. I took it out on other people.....0	1	2	3
48. I drew on my past experiences; I was in a similar situation.....0	1	2	3
49. I knew what had to be done, so I doubled my efforts to make things work.....0	1	2	3
50. I refused to believe that it had happened.....0	1	2	3
51. I promised myself that things would be different next time.....0	1	2	3
52. I came up with a couple of different solutions to the problem.....0	1	2	3
53. I accepted the situation, since nothing could be done.....0	1	2	3
54. I tried to keep my feeling about the problem from interfering with other things.....0	1	2	3
55. I wished that I could change what had happened or how I felt.....0	1	2	3
56. I changed something about myself.....0	1	2	3
57. I daydreamed or imagined a better time or place than the one I was in.....0	1	2	3
58. I wished that the situation would go away or somehow be over with.....0	1	2	3
59. I had fantasies or wishes about how things might turn out.....0	1	2	3
60. I prayed.....0	1	2	3
61. I prepared myself for the worst.....0	1	2	3
62. I went over in my mind what I would say or do.....0	1	2	3
63. I thought about how a person I admire would handle this situation and used that as a model.....0	1	2	3
64. I tried to see things from the other person's point of view.....0	1	2	3

65. I reminded myself how much worse things could be....0 1 2 3
 66. I jogged or exercised.....0 1 2 3

Respond to each statement by choosing the response that is closest to the way you feel about it. Answer each item by marking the response that is closest to the way you feel about it. Try not to let your answers be influenced by your responses to other statements. These are not trick questions. Answer according to how you actually feel.

Adapted from: Folkman, S. & Lazarus, R. (1988). Ways of Coping Questionnaire Sampler Set, Manual, Test Booklet, Scoring Key. Palo Alto, CA: Consulting Psychologist Press, Inc.

MEASURE OF BODY APPERCEPTION

Respond to each item by circling the number that is closest to the way you feel about each statement. Be as honest and accurate as you can in responding. Try not to let your response to one statement influence your responses to other statements. These are *opinion* items, so there are no "right" or "wrong answers. Answer according to *your own* feelings.

- 1= I agree a lot
- 2= I agree a little
- 3= I disagree a little
- 4= I disagree a lot

1. It's important to me to look my best all the time. 1.....2.....3.....4
2. When something goes wrong inside your body, you are never really the same person again. 1.....2.....3.....4
3. If a woman doesn't look good to others, she can't possibly feel good about herself. 1.....2.....3.....4
4. The idea of having (or having had) surgery bothers me because it means doing damage to my body. 1.....2.....3.....4
5. I feel good about myself only if I know I look good to other people. 1.....2.....3.....4
6. A scar from an operation, even one that doesn't show, is a constant reminder to yourself that something was wrong with you. 1.....2.....3.....4
7. I have to look as good as I can to others in order to feel right about myself. 1.....2.....3.....4
8. Completely apart from the pain, I'd have trouble giving myself an injection because it would mean forcing a needle into an undamaged part of my body. 1.....2.....3.....4

Carver, Pozo-Kaderman, Price, Noriega, Harris, Derhagopian, Robinson, Moffatt (1997). Concern about aspects of body image and adjustment to early stage breast cancer, Psychosomatic Medicine, 60, 168-174.

INFORMED CONSENT

participate in a research study exploring
the impact of cancer. Participation is
voluntary, and a written informed consent form, and a de-

claration of understanding, will be provided to you. Your participation involves the use of your

time and effort. We hope the research will provide information that will help you and others with breast cancer to better understand the disease and its treatment, and to improve the quality of life for people with breast cancer.

There are no known risks or benefits to your participation. Your participation is voluntary, and you may withdraw at any time without penalty. Your participation is confidential, and your identity will be protected.

By signing this form, you are giving your informed consent to participate in this research study. If you have any questions, please contact the research team at the following phone number or email address.

APPENDIX D
INFORMED CONSENT
The following information is provided to you to help you understand the research study and to help you decide whether or not you want to participate in the study.

The research study is being conducted by the following research team:

Principal Investigator	Dr. [Name]
Co-Investigator	Dr. [Name]
Research Assistant	Dr. [Name]

The research study is being conducted at the following location:

Location	[Address]
Phone Number	[Phone Number]
Email Address	[Email Address]

INFORMED CONSENT

You are invited to participate in a research study exploring coping styles and body image perceptions in women with breast cancer. Participation in this study involves the completion of three questionnaires, this consent form, and a demographic sheet.

Possible benefits of participation in this study include increased awareness of coping styles and body image perceptions. We hope the results of this study will provide important information on these topics. On one questionnaire, you will be asked to think of a recent stressful situation and how you coped with it. It is possible that you may experience some discomfort as you think about that stressful situation. At the back of your packet you will be provided with a list of counseling resources should you need assistance.

Completion of these forms typically takes no more than 30 minutes. After the questionnaires are completed and returned, the "Informed Consent" will immediately be separated from the packet. We are requesting permission to know the stage of participants' breast cancer. In signing this form, you give permission for the stage of your cancer to be provided by your doctor's office staff (either Melinda Baker or Vanessa Pikler). Your confidentiality will be strictly maintained. All of the information you provide is strictly confidential, and no individual participant will be identified.

I understand that participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation from this project at any time prior to turning in the study materials. If you choose to participate, please complete the packet and return it to the front desk in the envelope provided for your convenience. You will receive \$3.00 from the receptionist for your time and effort after completing the questionnaire packet for this study.

I may contact either Vanessa Pikler at (918) 584-3604, Carrie Winterowd at Oklahoma State University (405) 744-9664, or Sharon Bacher at the Institutional Review Board at (405) 744-5700 should I wish further information about this project.

I have read and fully understand the consent form. I sign it freely and voluntarily.

Date: _____ Time _____ (a.m./p.m.)

Signed: _____

100

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date: May 27, 1999 IRB #: ED-99-28

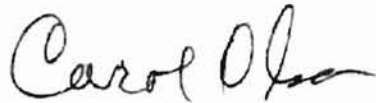
Proposal Title: "THE RELATIONSHIP OF RACE AND BODY IMAGE WITH COPING STRATEGIES AND SELF-EFFICACY IN COPING FOR WOMEN DIAGNOSED WITH BREAST CANCER"

Principal Investigator(s): Carrie Winterowd
Vanessa Pikler

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Signature:



Carol Olson, Director of University Research Compliance

May 27, 1999

Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Vanessa I. Pikler

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIP OF RACE AND BODY IMAGE WITH COPING AND SELF-EFFICACY IN COPING FOR WOMEN DIAGNOSED WITH BREAST CANCER

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Miami, Florida on October 20, 1967, the daughter of Dr. George Pikler and Elaine Pikler.

Education: Graduated from Edison High School, Tulsa, Oklahoma in May 1985. Received Bachelor of Arts degree in Psychology from the University of California, Riverside, California in March 1992. Completed the Requirements for the Master's of Science degree at Oklahoma State University in July 1999.

Experience: Chiropractic Assistant for Womack Chiropractic in Riverside, California (1985-1987). Counselor at Florence Crittenton Center in Los Angeles, California (June 1992-October 1992) Graduate Research Assistantship at the University of Oklahoma in the Health and Sport Sciences Department, Norman, Oklahoma (1993-1994). Front Desk Receptionist for Cancer Specialists, Inc. in Tulsa, Oklahoma (1995-1999). Psychology Intern at the Saint John's Healthy Lifestyle Program, St. John's Hospital, Tulsa, Oklahoma (1998-1999).

Professional Memberships: American Psychological Association.

Awards: Comprehensive Final Exams for Masters of Science Degree Passed With Honors, Oklahoma State University, Stillwater, Oklahoma, October 1998. Minority Doctoral Fellowship Award, University of Missouri-Kansas City, 1999.