BREAST CANCER SCREENING BEHAVIORS OF WOMEN OF MEXICAN DESCENT: A GROUNDED THEORY APPROACH

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Evelinn A. Borrayo, M. A.

Denton, Texas

August, 1999

A culturally-based theoretical model about how cultural beliefs about cancer and breast cancer screening techniques influence the screening behaviors of women of Mexican descent was developed using grounded theory. Across levels of acculturation and socioeconomic status, 34 women (49 to 81 years old) were interviewed through focus groups. Women who hold more traditional health beliefs about causes, nature, and responsibility with regard to breast cancer are more likely to “feel healthy” and not engage in breast cancer screening. Women who hold more traditional beliefs about propriety of female and health care provider behavior are more likely to “feel indecent” and also not engage in screening. The cultural health belief model is integrated within a sociocultural and a socioeconomic context.
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CHAPTER I

INTRODUCTION

Breast cancer is the most common cancer for Hispanic women. Although Hispanic women are not at greater risk for breast cancer development due to ethnicity per se, they are at higher risk than non-Hispanic White women for late-stage diagnosis (Richardson, Lanigholz, Bernstein, Burciaga, & Ross, 1992). Considerably lower rates of breast cancer screening procedures (e.g., breast self-examination, clinical breast examination, and mammography) may place Hispanic women at higher risk than non-Hispanic White women for late-stage breast cancer diagnosis (Dawson & Thompson, 1989; Fox & Stein, 1991; Harlan, Bernstein, & Kessler, 1991). Women of Mexican descent have the lowest rates of cancer screening among the major U.S. Hispanic subgroups (Cuban, Mexican, Puerto Rican; Suarez, Lloyd, Weiss, Rainbolt, & Pulley, 1994). Most studies among the Mexican descent population show that the lower rates of cancer screening are primarily associated with lower education, lack of health insurance coverage, and lower income (Harlan et al., 1991; Solis, Marks, Garcia, & Shelton, 1990; Treviño, Moyer, Valdez, & Stroup-Benham, 1991).

Apart from socioeconomic factors, level of acculturation to the majority non-Hispanic culture appears to be a factor that determines the use of cancer screening procedures among women of Mexican descent (Harlan et al., 1991; Solis et al., 1990). However, most studies using unidimensional measures of acculturation have in general
provided inconsistent results (Borrayo, 1997). It is also proposed that their health locus of control (Bundek, Marks, & Richardson, 1993) and health beliefs (Richardson et al., 1987) profoundly affect their breast cancer screening behaviors. However, the relationship between all three (acculturation, health beliefs, and health locus of control) and breast cancer screening behaviors is also inconclusive (Borrayo, 1997). It is possible that studies throughout the literature have provided inconsistent results because they have investigated these psychological variables through theoretical models (e.g., Health Belief Model, Rosenstock, 1966; Multidimensional Health Locus of Control, Wallston, Wallston, & DeVillis, 1978) developed mostly from a non-Hispanic, non-Mexican cultural perspective (Borrayo & Guarnaccia, 1997; Gonzales, Atwood, Garcia, & Meyskens, 1989).

One problem, then, is the lack of adequate theoretical models and supporting data to understand the psychological factors that influence the breast cancer screening behaviors of women of Mexican descent. For example, a culturally-based theoretical model about how beliefs with regard to breast cancer and breast cancer screening techniques impact screening behaviors may be more adequate at explaining the low rates of breast cancer screening in this population. Thus, it is important that specific psychological factors that are related to breast cancer screening behaviors of women of Mexican descent be understood and identified. Identifying them can aid in the development of psychologically and culturally sensitive interventions for attitude change to increase breast cancer screening frequency as recommended in 1997 by the National Cancer Institute (McCann, 1997). From this point of view, understanding psychological
variables that impact breast cancer screening in this population seems a more desirable and feasible goal than interventions that aim at changing socioeconomic status (SES) and/or acculturation.

The study was designed to gain a better understanding of the cultural health beliefs that may influence the breast cancer screening behaviors of women of Mexican descent age 50 and over. More specifically, the study seeks to answer the question: How do cultural health beliefs about breast cancer and breast cancer screening techniques influence the breast cancer screening behaviors of women of Mexican descent? Focus group interviews were utilized to elicit cultural health beliefs with regard to breast cancer and breast cancer screening techniques (i.e., BSE, CBE, and mammography).

Furthermore, the study attempts to contribute to the literature by developing an initial culturally-based theoretical model to understand the relationship between health beliefs and breast cancer screening behaviors through the use of grounded theory, a theory building method.

**Importance of Early Breast Cancer Diagnosis**

Stage of breast and cervical cancer diagnosis is perhaps the most crucial factor in determining cancer survival time for women at any age. Early detection greatly reduces mortality from breast and cervical cancers; therefore, effective cancer screening is important to prevent cancer deaths in all women. Proven screening techniques (e.g., breast self-examination, mammography, clinical breast examination, and Pap Smear) exist but are under used by many women. Cancer screening behaviors vary among women from different age, race, and socioeconomic groups (Calle, Flanders, Thun, &
Martin, 1993). Identifying factors that contribute to breast and cervical cancer screening within each group is important for the creation and implementation of intervention programs that increase early-stage diagnosis.

The general staging system for breast cancer is as follows: a) carcinoma-in-situ, stage I; b) local, invasive cancer localized to the breast, stage II; c) regional, cancer to the breast with spread to regional lymph nodes or pectoral muscles, stage III; d) remote, presence of distant metastases, stage IV. Early-stage diagnosis is considered to be the diagnosis made in-situ or localized to the breast, while late-stage diagnosis is the one made at the regional or remote stage of the disease (Farley & Flannery, 1989).

The survival of women with breast cancer is strongly dependent on the stage of the disease at time of diagnosis. Five-year average survival rates are much higher for breast cancers diagnosed and treated at an early-stage, in-situ or while the tumor is still localized. The average percentage five-year survival rate for all women diagnosed with localized cancer is a 93% survival rate. It diminishes to 71% survival rate with regional spread and to 18% survival rate with distant metastases. The five-year survival rate for all stages for non-Hispanic White women is 76.1% and for Hispanics is 70.6% (Texas Cancer Council, 1994).

The literature indicates that Hispanic women, relative to non-Hispanic White women, are at a greater risk for presenting with large tumors and with regional and distant metastases (Richardson et al., 1987). For women aged 65-74, 40.3% of non-Hispanic White women are diagnosed at a regional/distant stage rather than localized, compared with 50.4% of Hispanic women. Among women aged 75+, Hispanic women are more
likely to be diagnosed at a late stage, 49.9% at the regional/distant stage compared with 37% of non-Hispanic White women (Fox & Roetzheim, 1994).

Some researchers suggest that differences in stage of diagnosis across racial-ethnic groups may be explained by differences in socioeconomic status (SES). Richardson et al. (1992) examined the relationships of both stage at breast cancer diagnosis and delay in diagnosis with SES, race-ethnicity, age, and year of diagnosis using data from non-Hispanic White, African American, and Hispanic women aged 40 and older. The researchers conclude that low SES and Hispanic race-ethnicity are important risk factors for late-stage diagnosis of breast cancer and for long duration of symptoms. Late-stage diagnosis for Hispanic women was not explained by differences in SES as might have been expected. There was, however, a statistically significant interaction between SES and race-ethnicity after adjusting for age. Thus, the risk of late-stage diagnosis for Hispanic women was found to be more compounded by poverty than for non-Hispanic women. Late-stage diagnosis may also be related to delay in responding to breast symptoms which seem to differ between racial-ethnic and SES groups because of differences in access to care. Richardson et al. (1992) observed that risk of late-stage diagnosis in Hispanics and in those of low SES remained significantly elevated after adjusting for symptom duration.

**Prevalence of Breast Cancer Screening**

The breast cancer screening regimen recommended in 1997 by the National Cancer Institute (NCI) and the American Cancer Society (ACS) for women of all races indicated a baseline mammogram at age 40 and a mammogram every year after (Leitch et
al., 1997; McCann, 1997). In general, the NCI and the ACS recommend women age 40 years and older to include in their health care yearly mammography, yearly clinical breast examination (CBE) by a health care professional (CBE is usually jointly performed with an annual Pap Smear), and a monthly breast self-examination (BSE). These recommendations were made due to new scientific findings that warrant a change in the previously existent guidelines (American Cancer Society, 1995) for the early detection of breast cancer. The new recommendations were based on the observation that between the ages of 40 and 49 years, a woman has a 1.52% (1 in 66) risk of developing breast cancer at some time during the decade. Between the ages of 50 and 59 years, risk increases to 2.48%, or 1 in 40. Age-specific incidence increases until the age group 75 to 79 years (480.7 per 100,000 women), after which it declines to 431.4 per 100,000 in women 85 years or older (Leitch et al., 1997).

The 1987 National Health Interview Survey (Dawson & Thompson, 1989) indicates that older Hispanic women are being screened with mammography less often than older non-Hispanic White women. Moreover, within the Hispanic group, Mexican American women older than 65 years or greater reported not being screened at all. Concerning CBE, Hispanic women age 50-64 are also being screened considerably less than their non-Hispanic counterparts. While Hispanic women between the ages of 65 and 74 are being screened slightly more than non-Hispanic White women in this age range, Hispanic women age 75 and older, and especially Mexican American women, received considerably less CBEs than same age non-Hispanic White women. However, with regard to BSE, annual BSE performance among women between the ages of 50 and 74
years seems to be almost the same in the Hispanic and non-Hispanic groups. Furthermore, consistent with national norms for all American women this age, Richardson et al. (1987) found that 47% of Hispanic elderly women over the age of 55 who reported doing BSE within the past month performed it so poorly as to be regarded as useless in detecting breast lumps. Thus, it is unlikely that for a significant number of Mexican American women, within the 50 to 74 age range, attempts at self-examination would lead to early breast cancer detection. Oddly enough, for women 75 and older, non-Hispanic White women performed BSE less often than Hispanic women. Within Hispanic women, women of Mexican descent were the least likely to perform BSE. Richardson et al. (1987) also found that among Hispanic women, as among other non-Hispanic women, physician instruction in BSE was a significant factor to its correct and regular performance.

The same finding regarding the importance of health professional interventions generalizes to the use of mammography. Across the literature, the extent of physician’s recommendation has been the most consistently and strongly predictive factor of mammography in all women (Mor, Pacala, & Rakowski, 1992). It is possible that women of Mexican descent who do not perform BSE or who do so incorrectly have not been taught BSE by a physician or trained professional. Jacob, Giebinck, and Bastain (1990; as cited in Jacob, Spieth, & Penn, 1993) compared the proficiency of non-Hispanic women trained to perform BSE competently with the proficiency of health professionals. The results of their comparison indicated that: 1) women can be trained to perform BSE competently, and 2) given this training, they are at least as accurate as health professional
in detecting simulated lumps in breast models. Compelling evidence also exists in favor of BSE as found by a study which assessed the value of BSE in directly affecting survival rates (Costanza & Foster, 1984). This study determined that breast cancer deaths were significantly reduced in BSE performers compared to non-performers. This evidence strongly demonstrates that a proficient BSE is a valuable tool which can be used and trusted by all women as a means of becoming more independent with regard to their own health care. Of the breast cancer screening behaviors, BSE seems especially appropriate because it is a private, non-invasive procedure recommended to asymptomatic women of all ages, races, and socioeconomic levels. BSE practice is also very empowering in that it increases a woman’s autonomy and sense of control over her personal health.

The difference in cancer screening behaviors of women of Mexican descent may be also be explained in part by cultural beliefs (Gonzales et al., 1989; Salazar, 1996; Schur, Bernstein, and Berk, 1987). For example, Schur, Bernstein, and Berk (1987) note that not only are people of Mexican descent taught that enduring sickness is a sign of strength, but they also tend to have a stronger sense of privacy than other Hispanic and non-Hispanic women. In addition, people of Mexican descent often believe and rely more heavily on home remedies and care by other family members rather than seeking professional services (Gordon, 1994).

The possibility of other factors, such as biological differences in tumor growth between race and age groups (Clark, 1992), and the lack of physician recommendation for breast cancer screening (Weinberger et al., 1992), cannot be discounted as very influential to late-stage diagnosis. Across the literature, whether late-stage diagnosis is due to
biological differences, lack of physician recommendation, reduced access and delivery of health care services to poorer women of Mexican descent, lack of knowledge about breast cancer and breast cancer screening, the individual’s level of acculturation or structural assimilation, cultural beliefs about breast cancer screening among women of Mexican descent, or the combination of all these factors, is still not clear; therefore, more research is needed.

**Theoretical Models Used in Understanding Breast Cancer Screening of Hispanic Women**

In the past decade, there has been a growing literature focusing on breast cancer screening behaviors. The majority of this literature includes studies of factors associated with screening participation and evaluation of interventions designed for improving participation rates of mostly non-Hispanic White women. Of the studies focusing on psychological factors, few have been theory based. For the majority of these research studies neither their research design nor the interpretation of their findings have relied on an articulated conceptual framework (Curry & Emmons, 1994). When a conceptual framework is utilized, it is likely to be the Health Belief Model (Rosenstock, 1966), Theory of Reasoned Action (Fishbein & Azjen, 1975), Transtheoretical Model (Prochaska & DiClemente, 1982), or Prospect Theory (Meyerowitz & Chaiken, 1987). Although each model provides insights to factors that are necessary to predict and improve participation in breast cancer screening of mostly non-Hispanic White women, no one theoretical model seems sufficient (Curry & Emmons, 1994).

Few studies with Hispanic populations have used theoretical models to investigate the psychological factors associated with cancer screening behaviors (Gonzales et al.,
Most of the studies investigating breast cancer screening behaviors have used a Health Belief Model (HBM) approach (e.g., Borrayo, 1997; Hyman, Baker, Ephraim, Moadel, & Philip, 1994; Richardson et al., 1987; Zapka, Stoddard, Barth, Costanza, and Mas, 1989). Richardson et al. (1987) was the first to investigate whether past findings about predictors of breast cancer screening behaviors among non-Hispanic White women would generalize to Hispanic women. With regard to health beliefs, they found that perceived susceptibility to cancer and perceived benefits of early detection were not strong predictors of breast cancer screening behaviors (BSE, CBE, and mammography) in their sample of low-income older Hispanic women (55+ years old), composed mostly of women of Mexican descent. Two questions to measure perceived susceptibility and perceived benefits were used but other HBM constructs such as perceived barriers, perceived severity, perceived control, confidence, and health motivation were overlooked.

Zapka et al. (1989) investigated the relationship between belief variables (perceptions of susceptibility, barriers and benefits of screening, and social network influence) and breast cancer screening behaviors (CBE and mammography) in a sample of low-income Hispanic women aged 45 to 75 years. They found no relationship between belief variables and CBE or between belief variables and mammography. Hyman et al. (1994) investigated the relationship of three HBM variables (Susceptibility, Barriers, and Benefits) to mammography compliance in women of different ethnic backgrounds (40.2% African American, 29.3% non-Hispanic White, 19.5% Hispanic, and 7.3% Asian). Perceived Benefits and perceived Barriers in the Hyman et al. study were associated with the use of mammographic screening while Susceptibility was not predictive, although
results suggest that minority women felt more susceptible to breast cancer than non-Hispanic White women.

In conclusion, the data is limited and inconclusive with regard to the applicability of the HBM to understand the breast cancer screening behaviors of Hispanic women. In addition, the data could be expanded to discuss the use of other existent theoretical models, especially with women of Mexican descent. Most importantly, the need exists for culturally-based theoretical models to understand cultural health beliefs concerning breast cancer and breast cancer screening techniques which may impact breast cancer screening behaviors of Hispanic women.

Hispanic Health Beliefs about Breast Cancer and Breast Cancer Screening Techniques

Some attempts have been made to develop a theoretical model specific for understanding how preventive health behavior with regard to cancer can be improved among Hispanics (Gonzales et al., 1989). For example, the Hispanic Health Behavior in Cancer Prevention Model, is based on the Health Behavior in Cancer Prevention Model (HBCP) presented by Atwood in 1986 (as cited in Gonzales et al., 1989). The HBCP is composed of background demographic factors, health knowledge, the Health Belief Model, health status, health values, self and treatment efficacy, and social support. In addition, the Hispanic HBCP includes English language proficiency, and barriers to health care utilization as core components. It appears that although the Hispanic HBCP accounts for factors that seem relevant to Hispanics’ experience, it is still missing on specific Hispanic cultural health beliefs. The major problem with this model, however, is that no supporting research data has been generated regarding its utility for understanding
cancer preventive health behavior of Hispanics. It also has not been tested with regard to preventive breast cancer screening behaviors of Hispanic women, specifically of women of Mexican descent.

It is important to develop a theoretical model based on cultural health beliefs in order to help health care providers understand and incorporate cultural health beliefs into programs geared towards increasing compliance with cancer screening procedures. It has been found that persons of Mexican descent tend to respond more readily to directions and treatments when it is evident that the provider was incorporating cultural beliefs into the plan of care (Marsh & Hentges, 1988). Thus, if the perceptions of the client of Mexican descent about “causes” and “cures” of a health problem are not addressed, the client will be less likely to comply with the regimen prescribed (Caudle, 1993).

There are some broad themes cited throughout the literature describing Hispanic’s conceptualization of health and illness (Saint-Germain & Longman, 1993a). The Hispanic view of health and “enfermedad” is holistic and it includes spiritual, moral, somatic, physiological, psychological, social, and metaphysical dimensions (Giacello, 1985). The Spanish word “enfermedad” refers to the English concepts of disease (internal bodily events and processes) and illness (a person’s socio-culturally structured behaviors and interpretations that are a response to these process). Health is often seen as good fortune, luck, or a gift from God, and “enfermedad” as a punishment for sins (Kosko & Flaskerud, 1987). Saint-Germain and Longman’s (1993a) qualitative study investigating barriers to breast cancer screening with Hispanic women found examples of these beliefs regarding the causes of breast cancer. One woman expressed “I beg God not to let it [breast cancer]
happen to me.” Another woman said that she would not get breast cancer because “I don’t do anything wrong” (p. 259). Salazar (1996) presented verbatim description of Hispanic women in her study that also seem to reflect similar beliefs about causes of cancer. One woman stated: “If I do something bad, then I will get punished.” She went on to speculate, “that could be why someone gets sick” (p. 441). Researchers (e.g., Landrine & Klonoff, 1994) indicate that Hispanics also believe in other supernatural causes of disease, such as witchcraft, evil eye, and casting spells. None of these have been reported in studies describing Hispanic women’s beliefs about causes of breast cancer (Saint-Germain & Longman, 1993a).

Natural explanations, such as germs, microbes, or contagion, are also commonly accepted as causes of disease among Hispanics (Klonoff & Landrine, 1994). Cancer was characterized in Saint-Germain and Longman’s (1993a) sample as a dirty disease that one could get from being in a hospital, or from being around other people with cancer or corpses of people who died from cancer. One woman called cancer “cochinada (filth)” and said that “when it gets inside of you, you die quicker.” Other women said they would not let anybody touch them if they were to get cancer, implying that cancer is contagious.

With regard to beliefs about gender-related causes of breast cancer that seem to impact breast cancer screening behaviors, the following observations from Salazar’s (1996) focus group sessions were made: “Some women feel that if you breast feed, you won’t get cancer. So they say they don’t need this exam [mammography] because they breast fed their babies” (p. 441). The notion that breast cancer is a “female disease” and that female diseases are associated with sexual activity has also been identified previously
(Saint-Germain & Longman, 1993a). One woman said: “Why should I see a doctor? I'm not being sexually active. I don't need to be intimate with men. Why should anything go wrong with my body? It’s not being touched. It’s not being mishandled. Why then?” (Salazar, 1996, p.441).

Sustained emotional and psychological states such as “susto” (fright), anger, rejection, embarrassment or shame, disillusion, sadness (Clark, 1970), hopelessness, powerlessness, and curtailed time perspective (Saint-Germain & Longman, 1993a) have been identified as consequences of disease among Hispanics. Common remarks in Saint-Germain and Longman’s study indicating consequences of breast cancer included: “I would die of susto,” “[breast cancer would be] penoso (shameful) and triste (sad),” “volver loca (go crazy),” and “get an attack of nervios (nerves)” (p. 260). Feelings of hopelessness, powerlessness, and curtailed time perspective were significantly more likely to be experienced in more severe degrees by women who were less acculturated to the U.S. culture, more specifically those who tended to be Spanish speakers rather than English speakers. Beliefs about negative social consequences were indicated. Effects on the family are of special concern to Hispanic women. Some women mentioned that “the family would be disrupted” (p. 262). One woman said “I would want to die quickly, not suffering long term and burdening my family and friends” (p. 263). Nevertheless, beliefs about positive social consequences were mentioned by some women. Common positive affirmations of support were provided, for example, “My family would help me.” One woman said “I have some adorable granddaughters that would cry for me” (p. 263).

Disease prevention or screening for disease is not a well-understood concept
among Hispanics, especially among older Hispanics (Saint-Germain & Longman, 1993a). If disease is something that is natural or caused by supernatural factors, it would be hard to conceptualize cancer as a disease that can be prevented or screened. As one woman explained in Saint-Germain & Longman’s study, “I would accept it because it is a natural cause, and prepare for death” (p. 261). However, other women have indicated a preventive or screening orientation and a belief in its efficacy. For example, in Salazar’s (1996) study one woman who had three mammograms voiced: “I wanted it done for my own benefit. I felt much better after I had it because I knew I did not have cancer” (p. 441). She further added that cancer runs in her family.

Several Hispanic women in Salazar’s (1996) study identified specific cultural values that seem to serve as barriers to their participation in breast cancer screening. Many of these were described in the third person as if they were speaking for the community of Hispanic women: “The Latin women have moral beliefs; it comes from their roots. We don’t want to expose our breasts” (p. 441). Another woman said: “It would embarrass me that a man I didn’t know manipulated my body in this manner. It embarrasses us Mexican women more than it does a White person to have an exam like this [mammography]. I will go to the doctor when I have my babies. Otherwise it is just too difficult to endure” (p. 441). Another woman said: “Hispanic women do not feel that it’s appropriate to talk about their bodies, especially to men” (p. 442). Some women felt disloyal to their husbands if they went to the doctor. The influence of their husbands was mentioned by several of the interviewees: “There are the macho husbands. They don’t want their women to leave the house. They don’t want them to get this [mammogram]”
(Salazar, 1996, p. 443). Another woman said: “If I were to have this exam and it was to come back positive, then my husband would wonder: How did I get this? How is this possible?” (p. 441). She then went to describe sexual activity. Some women stated that they would only go to a female doctor. Others stated that even consulting a female doctor was embarrassing.

Strong concerns over family values were also expressed by Hispanic women with regard to having a mammogram (Saint-Germain & Longman, 1993a; Salazar, 1996). Some viewed their family responsibilities as an important reason: “In Mexico, it is the tradition that we take care of our families. This is the Mexican way. It is not for us to be sick; we ignore it. You ignore everything. You have to be really sick, almost dying, when it’s too late” (p. 443). It is possible that these statements provide cultural explanations for the lower rates of breast cancer screening procedures among women of Mexican decent (Dawson & Thompson, 1989; Fox & Stein, 1991; Harlan et al., 1991), which in turn, puts them at higher risk for late-stage diagnosis (Richardson et al., 1992).

The tradition of responsibility toward the family even at the expense of their own need appears deeply entrenched in the belief systems of Hispanic women (Saint-Germain & Longman, 1993a; Salazar, 1996). Responsibility as a barrier or facilitator of early detection is seldom mentioned in the literature, but, considering the statements of women in Salazar’s study, it may have a profound effect on Hispanic women’s health behavior decisions. This responsibility may be compounded by other cultural health beliefs (e.g., cause of cancer) that are not considered by health models (e.g., Health Belief Model) that have been developed and tested with non-Hispanic populations. The need exists then for
culturally-based theoretical models for predicting and improving compliance with breast cancer screening recommendations among Hispanic women. Such a theoretical framework may also be regarded as important for taking stock of the existing literature (Curry & Emmons, 1994). However, the majority of research studies conducted have not based their research designs nor the interpretation of their findings on an articulated conceptual framework that could aid in the development of breast cancer screening programs.

Across the literature, no efforts have been made to develop specific culturally-based theoretical models to understand health beliefs concerning breast cancer and breast cancer screening techniques among Hispanic women. Such an endeavor would ideally require an inductive approach (e.g., qualitative research methods; Tessaro, Eng, & Smith, 1993). As Stern and Pyles (1985) point out “experimental or quantitative survey design, do not have the potential for exploring and analyzing the multidimensional concepts and complexity of processes inherent in cross-cultural data.” (p. 3) Salazar (1996) and Saint-Germain and Longman (1993) have collected qualitative data with regard to Hispanic women’s beliefs and barriers to health care in general and breast cancer screening in particular; however, they have not specifically integrated their findings into a theoretical model of cultural health beliefs. This study was designed specifically to collect focus group data on cultural health beliefs. Moreover, the study used a rigorous grounded theory method to integrate its findings into a culturally-based theoretical model. Salazar and Saint-Germain and Longman’s findings were used as a method of triangulation for the model developed in this study.
Understanding Cultural Health Belief Models

Culture is understood as a "particular group's values, beliefs, norms and life practices that are learned, shared, and handed down" (Leininger, 1978, p. 28). It has been proposed that people within a prescribed culture generate meanings or definitions of health and illness that they learn through their interaction with others, particularly with close family members and friends (Blumer, 1969). Such cultural explanatory models of health and illness, also refer to as cultural health beliefs models, shape not only people's perception and experience of disease, but also influence their beliefs, expectations, and health-related behaviors (Angel & Thoits, 1987; Kleinman, 1990). Qualitative research can be used in the investigation of cultural health belief models that aid in the understanding of health-related beliefs and behaviors (Tessaro et al., 1993).

Because qualitative methods of data collection rely on obtaining detailed descriptions of people's attitudes, feelings, and beliefs, these methods facilitate the generation of theoretical frameworks or hypotheses about the cultural health beliefs and behaviors of a defined group of people. Understanding the perspective of a defined group of people from whom little is known can further aid in the planning of preventive health programs that will not only be efficacious, but that will be accepted, successfully implemented, attended, and maintained by the group members (Basch, Eveland, & Portnoy, 1986; Gonzales et al., 1989). For example, qualitative methods can be especially useful when attempting to understand the health beliefs and behaviors of ethnic minority groups from whom a cultural health belief model is not well understood (Gonzales et al., 1989; Salazar, 1996; Stern & Pyles, 1985; Stillman, 1992).
Mullen and Reynolds (1978) described the potential of grounded theory within qualitative methods for the understanding of cultural health belief models of health and illness. Grounded theory is a strategy through which theory is developed inductively from the qualitative analyses of a phenomena of interest (Glaser & Strauss, 1967; Silverman, 1993; Strauss & Corbin, 1990). In other words, it is a qualitative strategy for inductive inquiry aiming to explain social phenomena in relevant terms. For example, grounded theory has been advocated as the qualitative method of choice in the research of psychosocial phenomena related to cancer (Waxler-Morrison, Doll, & Hislop, 1995), more specifically, to breast cancer (Waxler-Morrison, Hislop, Mears, & Kan, 1991). Moreover, grounded theory has been recommended as the methodology of choice “to study women’s culturally based decisions about health” (Stern & Pyles, 1985, p. 1). Stern (1982) has used grounded theory to investigate barriers to health care that arise when cultural health beliefs of ethnic minorities are different from dominant culture’s beliefs.

One of the several important advantages of grounded theory discussed by Mullen and Reynolds (1978) is that problems are defined by those affected and the point of view of the target group (e.g., ethnic minorities) is identified. Focus group interviews are one of the several qualitative research techniques that can be used in a grounded theory approach that emphasizes understanding the participant’s perspective (Basch, 1987; Morgan & Spanish, 1984). This technique has been used effectively with Hispanic women in breast cancer research (e.g., Saint-Germain et al., 1993); however, none of the studies using FGIs has taken a grounded theory approach to investigate cultural health beliefs and to integrate findings into a theoretical model.
Focus Group Interviews

The focus group is a special type of group in terms of purpose, size, composition, and procedures. A focus group is typically composed of seven to ten participants who are either previously acquainted or not acquainted with each other before meeting at the focus group (Krueger, 1988). Whereas early users of focus groups considered prior acquaintanceship among participants to be detrimental to the nature of a focus group, later research has shown little difference between groups of known couples or strangers in terms of the quality or quantity of group output (Nelson & Frontczack, 1988). Most of the time participants are selected because they have certain characteristics in common that relate to the topic of the focus group. The researcher (or group moderator) interviews focus group participants in a permissive environment that nurtures different perceptions and points of view, without pressuring participants to vote, plan, or reach consensus (Krueger, 1988). The focus group interview (FGI) is conducted several times with similar types of participants to identify trends and patterns of perceptions. Systematic analysis of the discussions provides data about the feelings and opinions of the group participants about a given problem, experience, or other phenomenon of interest (Basch, 1987). Input obtained from FGI is intended to reflect how strongly feelings or opinions are held based on the quality of arguments, rather than through a more precise measurement that would require a quantitative approach. The comparison between quantitative and qualitative methods in general have been discussed extensively elsewhere (e.g., Bryman, 1988; Cook & Reichardt, 1979; Miller & Fredericks, 1991). For purposes of justifying the use of FGI, FGI is discussed in this section to compare it with other quantitative and qualitative
methods as an independent method and as an adjunct to these other methods.

FGI data are not appropriate for statistical testing and interval estimation, which requires quantitative data (Basch, 1987). Because qualitative data gathered through FGI lack this and other quantitative characteristics, some people label these data as "soft," "lacking rigor," and "not really scientific." Other reasons for these labels appear to be the "exposure to poor examples and/or because of the perpetuation of the bias favoring deductive, experimental designs as the highest form of research which psychology adopted in its drive to move from a philosophical to a scientific discipline" (Mullen & Reynolds, 1978, p. 82). Thus, it is important to justify the use of FGI as a valuable scientific method and to illustrate through concrete examples its research benefits.

As previously explained, the careful and systematic analysis of the FGI discussions provides data about the feelings and opinions of the group participants about a given problem, experience, or other phenomenon of interest. Thus, the major advantage of FGI data is that the participants' own thoughts and theories about a topic receive fair weight in comparison to hypotheses derived from prior theory or research that may or may not apply to them. From this perspective, FGI produces in-depth data that are more valid than those produced by more popular quantitative means of inquiry, for example written surveys which tend to superimpose the conceptual framework of the researcher (Morgan & Spanish, 1984). Thus, FGI produces data that allows the formulation of hypothesis and theories that may be more valid and generalizable to the population from which the sample of FGI participants belongs, in this case, a population of women of Mexican descent. FGI's findings can then be supported through quantitative testing.
From another perspective, the validity of FGI data can be measured by how closely it correlates to data obtained by other methods, such as written surveys (Ward, Bertrand, & Brown, 1991). When similar results are produced, this strengthens the findings of both methods through triangulation. Theory, method, and data triangulation is an important concept in research design (Campbell & Fiske, 1959; Jick, 1983), although in practice the extent to which triangulation is extensively implemented seems questionable (Ward et al., 1991).

Only a few studies with Hispanic populations have used both FGI and surveys for triangulation. A study in Honduras and Guatemala found that the number of differences in the findings yielded by FGI and by surveys tends to be relatively small (e.g., 11.7%; Ward et al., 1991). However, although the quantity of different findings may be small, the implications of these different findings may be great (Saint-Germain, Bassford, & Montano, 1993). Survey interviews may reflect attitudes on a rational, normative level rather than on an emotional level. Survey answers, at the individual level, can be manipulated to be “good” or “right,” which can result in the under reporting of negative attitudes due to concern about social disapproval. In contrast, the lack of pressure to answer any one question allows greater feeling of anonymity in the group interview and hence greater security and freedom to disclose both positive and negative attitudes and emotions.

Focus groups could also be used to enhance the understanding of survey findings. FGI can serve to present findings to the research subjects from which quantitative findings were derived and to query them about how they would interpret or explain the
data. The point of view of the research subjects in interpreting results through focus
groups could contribute to the validity of interpretations. On the other hand, quantitative
techniques, such as surveys, can be conducted as a follow up to a focus group study to
assess the strength of conviction and generalizability of findings. For this purpose, FGI
can serve to identify issues to be addressed by the survey and to determine the words used
by the target population to describe the problems under study (Ward et al., 1991).

With regard to other methods of qualitative research, one may want to ask why
should FGI be used instead of other methods, such as individual interviews. The
advantages of the interview method and the factors affecting bias have been discussed
extensively elsewhere (e.g., Sudman & Bradburn, 1983) and are not mentioned here;
however, some are discussed to compare individual interviews with FGI. For example, in
an individual interview the interaction is limited to the interviewer and the respondent,
which may facilitate the detailed sharing of information that may be inhibited by group
norms (e.g., distancing outsiders) in FGI. On the other hand, group pressures may inhibit
individuals from providing misleading information (Basch, 1987). Krueger (1988) argues
that people need to listen to opinions of others before they form their own personal
viewpoints. While some opinions may be developed quickly and held with absolute
certainty, other opinions are malleable and dynamic. Evidence from focus group
interviews suggests that people do influence each other with their comments, and, in the
course of the discussion, the opinions of an individual might shift (Krueger, 1988). Thus,
the researcher can thereby discover more about how the shift occurred and the nature of
the influencing factors.
Another comparison pertains to the nature of information gathered through individual interviews versus FGIs. If the research question is of a sensitive nature (e.g., sexual behaviors), individual interviews may facilitate the disclosure of information that individuals may not feel comfortable discussing in front of other people. In other instances, the research topic is too complex, requiring more detailed responses that are better obtained using structured, in-depth individual interviews (Basch, DeCicco, & Malfatti, 1989). Certainly obtaining in-depth detailed information can take a considerable amount of resources in terms of time and money. Instead, FGIs constitute a more cost-effective method of collecting qualitative information on a topic of interest (Krueger, 1988). Although there are differences among qualitative techniques for collecting information, the issue is not the superiority of one method or the other, but the careful selection of the most appropriate method with regard to the nature of the information and to facilitate the participants' disclosure of such information.

Focus Group Interviews in Health Psychology Research

Focus group interviews could contribute to research areas that are of great concern to health psychology, for example, determinants of health behavior and decision making theory. The FGI technique can be useful for generating hypotheses related to why people behave in certain ways and identifying obstacles and facilitators that may be associated with practicing a particular preventive health behavior (Basch, 1987; May & Foxcroft, 1995). May and Foxcroft suggested that researchers using FGIs should not ask respondents to define the relationship between their beliefs and behaviors, but should ask them to explore the problems or obstacles of research in arriving at this relationship. With
this focus, the purpose of the group is to establish which factors, variables, and issues are important in framing health beliefs and behaviors. Through this indirect strategy researchers are more likely to apprehend the cognitive models that individuals employ to direct their belief related to behavior.

According to May and Foxcroft (1995), respondents will reveal their own cognitive models for framing health beliefs and behaviors when they are asked to shift their attention to an external task (task-group interviews) from an internal view. This reduces the bias in self-reports on health beliefs and behaviors that is introduced by the respondents’ prior assumptions about the interviewer’s expectations. Other sources of bias in self-reports such as the “politeness phenomena” or perceptions of how what they believe internally will be interpreted by the actual and potential audience are reduced. For example, a Hispanic woman could be concerned about how a health care professional may judge her if she voices her lack of motivation and fear of knowing that she has cancer because she is not socially and/or mentally prepared to deal with the disease (Saint-Germain et al., 1993). By shifting attention away from herself, she may be more likely to voice her lack of motivation and fear. Through task-group FGIs, the structure, disparities, and connections between cognitive models and practices are revealed by the way in which members of the group come to constitute the research problem.

Focus Group Interviews with Hispanic Women

The literature on research issues with Hispanic cultures has focused mostly on sensitivity in instrument design (Geisinger, 1994; Marin & Marin, 1991; Malgady, 1996). The central argument is that time and effort should be spent developing, translating, and
testing culturally valid research instruments. Careful translation and testing of research instruments, although necessary, may not be sufficient (Rogler, 1989). Sherrard-Sherraden and Barrera (1995) argue that even when research instruments have been developed, translated, and tested for Hispanics, there are considerable differences both among Hispanic sub-groups (e.g., Mexican, Puerto Rican, Cuban) and within sub-groups (e.g., person of Mexican descent born in the U.S. vs. those born in Mexico). Furthermore, data collection strategies need to build trust and encourage forthrightness among respondents by incorporating accepted patterns of communication into the research design (Goodson-Lawes, 1994). Therefore, research instruments should be developed, translated, and pretested not only with a specific target population but also with culturally sensitive methods.

Techniques such as the “plática interview” can be used as a culturally appropriate method for research with Hispanic women. First recognized and discussed by Valle in 1982 (as cited in Sherrard-Sherraden & Barrera, 1995), the plática interview can be defined as a “friendly conversation” and a “mutualistic extended discussion” which serves as the conversational norm among Hispanics. Therefore, methods such as focus group interviews could be seen as a “plática interview” by older women of Mexican descent because FGIs use an open-ended conversation interview format between the interviewer and the respondents. FGIs also seem appropriate with older women of Mexican descent because they, as other older Hispanic women, draw on oral traditions, norms of helping, and existing social networks (Saint-Germain et al., 1993). From this perspective, FGI is a very appropriate research method that provides the type of culturally
appropriate and supportive social atmosphere that encourages a high level of self-disclosure from older Hispanic women. The difference between the plática interview and FGI is that FGI provides a previously set, goal oriented focus of discussion that is moderated to lead women to converse on a topic of interest.

There have been very few published reports of the suitability of FGIs for health research with older Hispanic women in the United States (e.g., Saint-Germain et al., 1993; Salazar, 1996). Saint-Germain et al. (1993) used both survey interviews and FGIs to contrast their findings on older Hispanic women with regard to the “barriers” to health care use in general and breast cancer screening in particular. They used 409 Hispanic women for the survey interviews and 50 Hispanic women for six FGIs. The study concluded that survey interviews are more suited for documenting individual levels of knowledge and practice, whereas the FGIs are more suited for reproducing community attitudes and patterns of practice and for explaining the reasons behind the survey findings. Furthermore, they argue that FGIs are better in providing the type of supportive social atmosphere that encourages a higher level of self-disclosure from older Hispanic women than what is likely to be attained in one-to-one survey interviews that isolates the older woman from her peers. Saint-Germain et al. suggested that their findings lend support to the hypothesis that using FGIs for health research with older Hispanics has validity and reliability. The findings of the FGIs in their study, in most cases, confirmed the findings of the population surveys. They indicate that in many cases, the FGIs went beyond the information obtained in the survey, amplifying the understanding of the various facets of barriers to breast cancer screening and specifying more exactly how
some of the barriers work in practice.

Salazar (1996) combined individual exploratory interviews with FGIs in her study to identify Hispanic women's attitudes and beliefs about breast cancer and breast cancer screening procedures (i.e. mammography). Individual interviews were conducted first followed by FGIs. Salazar used 29 rural Hispanic women, the majority of Mexican descent, between the ages of 38 and 74, most of whom had a low socioeconomic status. She reported that these women during the individual interviews identified 18 factors, which fell into 3 categories: Knowledge and Attitudes (how well it works, personal risk, other ways of knowing, fear of cancer and/or treatment, belief in fate, and cultural issues); Issues Related to Participation (language, getting there, time, cost, radiation exposure, pain); and Social Concerns (role model, relationship to self, responsibility to others, influence of family/friends, influence of doctors, influence of society). This information obtained from the interviews was successfully used as probes to encourage the FGI discussion.

Salazar (1996) argues that FGIs were very useful for validating and expanding upon the information collected during the individual interviews. She believes that the obtained findings were enriched by these methods of data collection concerned with the process of obtaining information in the words of Hispanic women (the majority of whom were of Mexican descent). A content analysis method was used to identify specific factors that influence mammography screening. Salazar later used the combined findings to develop a hierarchical scheme of attributes that served as the basis for a survey in another study.
Summary and Critique

There is strong evidence that older Hispanic women aged 50 and over are at higher risk than non-Hispanic White women for late-stage breast cancer diagnosis because they utilize screening procedures at considerably lower rates (Dowson & Thompson, 1989). Within the Hispanic group, older women of Mexican descent are the least likely to engage in breast cancer screening behaviors. Several studies have attempted to understand the factors that contribute to the low rates of breast cancer screening of Hispanic women in general but few have specifically investigated women of Mexican descent. The few studies on women of Mexican descent show more consistently that the lower rates of breast cancer screening are primarily associated with socioeconomic factors (e.g., lower education levels, lack of health insurance coverage, and lower income levels).

Other studies have investigated the relationship between psychosocial variables (e.g., health beliefs, acculturation) and breast cancer screening behaviors of Hispanic women. The studies interested in psychological variables have for the most part used theoretical models developed with a non-Hispanic White population to investigate and interpret breast cancer health beliefs of Hispanic women; however, they have in general provided inconsistent results. One possibility for explaining inconsistencies may be that studies have not based their research designs nor the interpretation of their findings on an articulated conceptual framework appropriate for Hispanic women, in particular, appropriate for women of Mexican descent. An adequate theoretical model that originates from the psychological constructs determined by the target population is needed to take stock of the existent literature on cultural health beliefs.
More importantly, a culturally-based theoretical model can aid in understanding how cultural health beliefs with regard to breast cancer and breast cancer screening techniques impact screening behaviors of women of Mexican descent. Such a model may also help us understand the low rates of breast cancer screening among these women. Furthermore, a culturally-based theoretical model can help health professionals to devise culturally-based interventions that will be not only accepted and attended by women of Mexican descent but also will be efficacious in increasing their breast cancer screening behaviors. An increase in breast cancer screening may in turn increase the probability of early breast cancer diagnosis and decrease the rates of breast cancer deaths among women of Mexican descent.

Purpose and Research Questions

The review of the literature indicated that a need exists to expand the research data base for understanding the relationship between psychological variables (e.g., health beliefs) and breast cancer screening behaviors of women of Mexican descent. This dissertation attempts to partially satisfy this need though interviews conducted with women of Mexican descent age 50 and over to: a) obtain a detailed description of their attitudes, feelings, and health beliefs regarding breast cancer and breast cancer screening techniques (BSE, CBE, and mammography); and b) analyze and integrate such descriptions into a theoretical model for conceptualizing how cultural health beliefs impact breast cancer screening behaviors. Grounded theory was used as a research method for the development of a culturally-based theoretical model. This method also allowed for the utilization of research techniques, such as focus group interviews, to
collect data that have shown acceptance among women of Mexican descent.

Overall, this dissertation sought to answer the research question: How do cultural health beliefs about breast cancer and breast cancer screening techniques influence the breast cancer screening behaviors of women of Mexican descent? More specifically, this question was answered by obtaining information on the following clusters of questions:

**Cluster 1** What do women of Mexican descent believe are the causes of cancer in general and breast cancer in particular?

**Cluster 2** What might it mean to women of Mexican descent to have breast cancer? What do they expect would be their affective state? What do they perceive would happen to their lives?

**Cluster 3** What do women of Mexican descent believe they can do (or not do) to prevent getting breast cancer?

**Cluster 4** What do women of Mexican descent believe they can do (or not do) to prevent dying from breast cancer? Who would they go to for preventive interventions and why?

**Cluster 5** What do they think of BSE as a breast cancer screening procedure? How do they feel about doing BSE?

**Cluster 6** What do women of Mexican descent think about going to a physician or nurse for a CBE? How do they feel about receiving a CBE? What do they think of mammography as a breast cancer screening procedure? How do they feel about getting a mammogram?

**Cluster 7** What do women of Mexican descent believe will motivate them to get an annual mammogram and CBE, and to do monthly BSE?
CHAPTER II

METHOD

Participants

The focus group sample included 34 women of Mexican descent age 50 and over living in Dallas, Denton, or Tarrant County of Texas, who volunteer to participate in this study. According to the 1990 Census tract for Tarrant County there were 6,301 females age 50+ years old of Hispanic origin. In Tarrant County approximately 88% of Hispanics were of Mexican origin in 1990. It is calculated that approximately 5,545 females age 50+ years old were of Mexican origin. For Dallas County there were 13,158 females age 50+ years old of Hispanic origin. For Dallas county there were 87% or approximately 11,448 females age 50+ years old who were of Mexican descent in 1990. For Denton County there were 743 females age 50+ years old of Hispanic origin, with approximately 78% of Mexican origin. It is calculated that approximately 580 females age 50+ years were of Mexican descent in 1990.

Women of Mexican descent participating in this study were recruited from senior centers, health clinics, community housing agencies, and churches. Excluded were those women who have or had any type of cancer (e.g., breast cancer, cervical). Subjects were contacted in person or over the phone to determine their status for inclusion and exclusion. If women did not meet the requirements for inclusion, they were asked for names of other women they know who meet the criteria and those women were called.
Focus Groups

During the initial contact women who agreed to participate were asked to provide sociodemographic information such as age, highest level of education attained, and language of preference (Spanish or English). Based on this information, women were given the place and time in which a focus group would be conducted in their community. There were 5 focus groups conducted. Each focus group session was planned to include approximately 7 women for a total of 35 women. To increase the probability of getting 7 participants, a greater number of women, 3 more in case some did not attend, were contacted and invited to participate. Due to over attendance and no shows in some groups, the number of women in each group varied from 10 to 4 women. Women were mostly assigned to groups according to their level of education: low (no high school education); low to middle (sixth grade on but no more than high school), middle (with a high school education but no higher than college); and high (with a college education or higher). In an attempt to reflect the distribution of levels of education among the population of person of Mexican descent living in the United States, the groups selected were: two low level (i.e., groups 1 and 5), one low to middle group (i.e., group 4), one middle (i.e., group 3), and one high level group (i.e., group 2).

Profiles of Groups

In order to provide quantitative and qualitative information regarding the differences and similarities within and between groups, a group profile for each of the five groups was created and summarized in Tables 1 to 5. This information can further clarify the impact of each of the groups' characteristics (e.g., socioeconomic status, group
dynamics) on the emerging theory. The group profile presents the age, education, income, BSE frequency, and recency of mammography and CBE information for each of the group's participants. In addition, the profile includes a brief narrative description of how the groups were selected for theoretical sampling purposes and the observed interactions among participants and between the interviewer and the participants. Special attention was given to the interactions of four types of group participants: "leader," "expert," "dominant talker," and "shy" participants (Krueger, 1994).

Self-appointed "leaders" are those participants who take charge of the group by directing the interaction among participants. Participants often defer to others who are perceived to have more education, affluence, or political/social influence. Some people consider themselves "experts" because they have considerable knowledge or experience with the topic under discussion. Thus, participants' opinions are influenced by the information "experts" share in a group. The "dominant talker" takes a longer amount of time than other participants when they share their opinion. The problem with "dominant talkers" is that they can drone on and on and take up discussion time from other participants, while "shy" participants tend to say little and speak with soft voices. These participants often can share their opinions but extra effort is required to get these participants to elaborate their views. Krueger's (1994) suggestions on how to deal with each type of participant were followed if any of their prototypical behaviors was displayed during the FGI discussion. However, the way they were dealt with is considered unnecessary for the group profile description presented for each of the five focus groups and is not included in the results section.
Group one profile. The FGI participants for group one were recruited from the city of Denton, Texas, and interviewed at a community health clinic. The FGI was conducted in Spanish. Participants for this group were selected to represent women with a low level of education. That is, women who did not have a high-school education were recruited. On the average, women in group one have attained a fifth grade level of education ($M = 5.30, SD = 1.77$). The average annual income for the group was between $5,000 and 10,000 dollars ($M = 2.00, SD = .82$). The annual income for all women in the group (see Table 1) was below 200 percent of the Federal poverty guidelines (U. S. Bureau of the Census, 1995). Women had on the average a low level of acculturation ($M = 1.84, SD = .74$).

Table 1

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Birth</th>
<th>Edu</th>
<th>Income</th>
<th>BSE</th>
<th>CBE</th>
<th>Mammo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maria C</td>
<td>50</td>
<td>Mexico</td>
<td>8</td>
<td>$10-20</td>
<td>0/yr</td>
<td>last yr</td>
<td>2 yrs ago</td>
</tr>
<tr>
<td>2. Juanita A</td>
<td>57</td>
<td>Mexico</td>
<td>6</td>
<td>$5-10</td>
<td>3-5/yr</td>
<td>2 yrs ago</td>
<td>2 yrs ago</td>
</tr>
<tr>
<td>3. Maria Luisa</td>
<td>58</td>
<td>Mexico</td>
<td>6</td>
<td>$5-10</td>
<td>0/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>4. Carmen</td>
<td>60</td>
<td>Mexico</td>
<td>6</td>
<td>less $5</td>
<td>6-9/yr</td>
<td>can’t rem</td>
<td>can’t rem</td>
</tr>
<tr>
<td>5. Maria S</td>
<td>52</td>
<td>Mexico</td>
<td>3</td>
<td>less $5</td>
<td>10-12/yr</td>
<td>3+ yrs</td>
<td>Never</td>
</tr>
<tr>
<td>6. San Juana</td>
<td>70</td>
<td>Mexico</td>
<td>6</td>
<td>less $5</td>
<td>1-2/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>7. Berta</td>
<td>61</td>
<td>Mexico</td>
<td>2</td>
<td>$5-10</td>
<td>0/yr</td>
<td>3+ yrs</td>
<td>last yr</td>
</tr>
<tr>
<td>8. Josefa A</td>
<td>57</td>
<td>Mexico</td>
<td>6</td>
<td>$5-10</td>
<td>0/yr</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>9. Josefa B</td>
<td>75</td>
<td>U.S.A.</td>
<td>6</td>
<td>$10-20</td>
<td>3-5/yr</td>
<td>3+ yrs</td>
<td>last yr</td>
</tr>
<tr>
<td>10. Paulina</td>
<td>77</td>
<td>U.S.A.</td>
<td>6</td>
<td>$10-20</td>
<td>1-2/yr</td>
<td>2 yrs ago</td>
<td>missing</td>
</tr>
</tbody>
</table>

Note: Values under income represent income in thousands of dollars. Edu = Education; BSE = Breast Self Exam; CBE = Clinical Breast Exam; Mammo = Mammography.
Regarding women's adherence to breast cancer screening guidelines, only 1 woman reported doing BSE at least 10 to 12 times a year; only two women reported complying with both the recommended annual mammogram and the annual CBE (see Table 1). On the average, women reported performing BSE 1 to 2 times a year ($M = 2.20$, $SD = 1.75$), obtaining a mammogram 2 years ago ($M = 2.10$, $SD = 1.91$), and obtaining a CBE a year ago ($M = 1.60$, $SD = 1.48$).

Rapport between the interviewer and women in group one was easily established. Although the group was composed of ten women, rather than the expected seven, women took turns to talk. A friendly atmosphere prevailed throughout the interview in spite of the fact that they did not know each other before the interview.

No single women in group one appeared to take the role of "the leader." Josefa B and Maria C were the most educated regarding breast cancer screening techniques and shared their knowledge without presenting themselves as "the experts." San Juana seemed to be more knowledgeable regarding Mexican cultural health beliefs. Maria S, Juanita A, and Carmen appeared to be the least knowledgeable about Mexican cultural beliefs and breast cancer screening techniques. Josefa A was the "dominant talker," however, she was not intrusive when other women spoke. Paulina, Berta and Maria Luisa were somewhat "shy" but when probed they would share their comments.

Group two profile. The FGI participants for group two were recruited from Denton, Texas, and interviewed at a community recreational center. The FGI was conducted in English. Participants for this group were selected to represent a group of women with a high level of education. That is, women who had at least a college
education were recruited. On the average, women in group two have attained a fifteenth
grade level of education \((M = 15.00, SD = 1.77)\). The average annual income for the
group was between \$20,000 and \$40,000 dollars \((M = 4.40, SD = .55)\). Women had on
the average a high level of acculturation \((M = 2.84, SD = .38)\). Regarding adherence to
breast cancer screening guidelines, most women reported complying with the
recommended annual mammogram and annual CBE; however, only 1 reported doing
BSE at least 10 to 12 times a year (see Table 2). On the average, women reported
performing BSE 3 to 5 times a year \((M = 3.80, SD = 1.10)\), obtaining a mammogram a
year ago \((M = 1.60, SD = 1.34)\), and obtaining a CBE a year ago \((M = 1.00, SD = 1.43)\).

Table 2

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Birth</th>
<th>Edu</th>
<th>Income</th>
<th>BSE</th>
<th>CBE</th>
<th>Mammo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jean</td>
<td>49</td>
<td>U.S.A.</td>
<td>College</td>
<td>$20, -40,</td>
<td>6 - 9/ yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>2. Josefa</td>
<td>56</td>
<td>U.S.A.</td>
<td>College</td>
<td>$20, -40,</td>
<td>1-2/ yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>3. Virgina</td>
<td>57</td>
<td>Mexico</td>
<td>College</td>
<td>$20, -40,</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>3+yrs</td>
</tr>
<tr>
<td>4. Anita</td>
<td>51</td>
<td>U.S.A.</td>
<td>Graduate</td>
<td>$40, +</td>
<td>6 - 9/ yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>5. Rosemary</td>
<td>56</td>
<td>U.S.A.</td>
<td>Graduate</td>
<td>$40, +</td>
<td>6 - 9/ yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
</tbody>
</table>

Note. Values under income represent income in thousands of dollars. Edu = Education; BSE = Breast Self Exam; CBE = Clinical Breast Exam; Mammo = Mammography.

Rapport between the interviewer and women in group two was easily established.

Due to the high level of education women in group two have achieved, they were more
interested in the research process than the other four groups. For example, they inquired
about the purpose of the study, the reliability of qualitative findings, the size of the
study’s sample, etc. Their questions were mostly answered at the end of the FGI, without
compromising the integrity of the present study.

No one woman in the group appeared to take the role of “the leader” or the “dominant talker.” Although Anita was the work supervisor of two other women in the group, she did not appear to be regarded as the leader. Anita seemed to be more knowledgeable regarding Mexican cultural beliefs but did not present herself as the “expert.” Rosemary and Josefa shared in the group without apparent inhibition that could be attributed to their supervisor’s presence. Virginia was somewhat shy but when probed she easily shared her comments. Jean appeared to be the least knowledgeable about Mexican cultural beliefs.

Group three profile. The FGI participants for group three were recruited from the city of Dallas, Texas, and interviewed at a Catholic church. The FGI was conducted in English. Participants for this group were selected to represent women with a middle level of education. That is, women who had at least a high school education were recruited. On the average, women in group three had attained a twelfth grade level of education ($M = 12.88$, $SD = 1.46$). The average annual income for the group was between $20,000 and $40,000 dollars ($M = 4.50$, $SD = .53$). Women had on the average a high level of acculturation ($M = 3.20$, $SD = .43$). Regarding adherence to breast cancer screening guidelines, most of these women reported complying with the recommended annual mammogram and CBE; half of the women reported doing BSE at least 10 to 12 times a year (see Table 3). On the average, women reported performing BSE 3 to 5 times a year ($M = 3.50$, $SD = 1.85$), obtaining a mammogram a year ago ($M = 1.25$, $SD = .46$), and obtaining a CBE a year ago ($M = 1.38$, $SD = .00$).
Table 3

**Group three profile**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Birth</th>
<th>Edu</th>
<th>Income</th>
<th>BSE</th>
<th>CBE</th>
<th>Mammo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alice</td>
<td>56</td>
<td>U.S.A.</td>
<td>12</td>
<td>$40,+</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>2. Lucy</td>
<td>67</td>
<td>U.S.A.</td>
<td>12</td>
<td>$20,-40,</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>3. Sarah</td>
<td>57</td>
<td>U.S.A.</td>
<td>College</td>
<td>$40,+</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>4. Susan</td>
<td>60</td>
<td>U.S.A.</td>
<td>College</td>
<td>$20,-40,</td>
<td>3-5/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>5. Mary</td>
<td>59</td>
<td>U.S.A.</td>
<td>12</td>
<td>$40,+</td>
<td>1-2/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>6. Maria</td>
<td>65</td>
<td>U.S.A.</td>
<td>12</td>
<td>$20,-40,</td>
<td>6-9/yr</td>
<td>last yr</td>
<td>2 yrs ago</td>
</tr>
<tr>
<td>7. Sofia</td>
<td>66</td>
<td>U.S.A.</td>
<td>College</td>
<td>$40,+</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>8. Ramona</td>
<td>58</td>
<td>U.S.A.</td>
<td>12</td>
<td>$20,-40,</td>
<td>missing</td>
<td>3 yrs</td>
<td>2 yrs ago</td>
</tr>
</tbody>
</table>

Note. Values under income represent income in thousands of dollars. Edu = Education; BSE = Breast Self Exam; CBE = Clinical Breast Exam; Mammo = Mammography.

Rapport between the interviewer and women in group three was easily established. During the socialization period some women expressed that they were pleased to be invited to discuss the topic of breast cancer. A friendly atmosphere prevailed throughout the interview, maybe because all women belonged to the same church and some were friends.

No woman in the group appeared to take the role of “the leader.” Although Alice had been the person who recruited women to participate in the group, she did not seem to be regarded as the leader. Lucy was the “dominant talker,” however, she was not intrusive when other women spoke. Lucy also seemed to be the most knowledgeable regarding Mexican cultural health beliefs. Sarah also seemed very knowledgeable regarding cultural health beliefs. Susan and Sofia were the most educated regarding
breast cancer screening techniques and shared their knowledge without presenting
themselves as “the experts.” Mary and Maria were somewhat “shy” but when probed
they would share their comments without hesitation. Ramona appeared to be the least
knowledgeable about Mexican cultural beliefs and breast cancer screening techniques
when the group was probed to share information.

**Group Four Profile**

The FG1 participants for group four were recruited from the city of Dallas, Texas,
and interviewed at a Catholic church. The FGI was conducted in Spanish. Participants
for this group were selected to represent women who had a low to middle level of
education. That is, women who had at least 6 years but not more than 12 years of
education were recruited. On the average, women have attained a ninth grade level of
education (M = 9.57, SD = 2.44). The average annual income for the group was between
$5,000 and 10,000 dollars (M = 2.14, SD = .38). The annual income for all women in the
group (see Table 4) was below 200 percent of the Federal poverty guidelines (U. S.
Bureau of the Census, 1995). Women had on the average a low level of acculturation (M
= 2.22, SD = .53). Regarding adherence to breast cancer screening guidelines, three
women reported not attentively complying with one or the other of the recommended
annual mammogram or the annual CBE; one of these women had never had a
mammogram or CBE; none of the woman reported doing BSE at least 10 to 12 times a
year (see Table 4). On the average, women reported performing BSE 1 to 2 times a year
(M = 2.14, SD = 1.07), obtaining a mammogram 2 years ago (M = 2.29, SD = 1.89), and
obtaining a CBE 2 years ago (M = 2.14, SD = 1.06).
Table 4

**Group four profile**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Birth</th>
<th>Edu</th>
<th>Income</th>
<th>BSE</th>
<th>CBE</th>
<th>Mammo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modesta</td>
<td>81</td>
<td>Mexico</td>
<td>8</td>
<td>$5-10</td>
<td>0/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>2. Teresa</td>
<td>64</td>
<td>Mexico</td>
<td>12</td>
<td>$5-10</td>
<td>3-5/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>3. Berta</td>
<td>65</td>
<td>Mexico</td>
<td>(GED)</td>
<td>$5-10</td>
<td>1-2/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>4. Susana</td>
<td>65</td>
<td>Mexico</td>
<td>12</td>
<td>$10-20</td>
<td>6-9/yr</td>
<td>Never</td>
<td>3+ yrs</td>
</tr>
<tr>
<td>5. Anita</td>
<td>66</td>
<td>U.S.A</td>
<td>8</td>
<td>$5-10</td>
<td>1-2/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>6. Maria A</td>
<td>64</td>
<td>U.S.A</td>
<td>6</td>
<td>$5-10</td>
<td>1-2/yr</td>
<td>2 yrs ago</td>
<td>2 yrs ago</td>
</tr>
<tr>
<td>7. Maria B</td>
<td>58</td>
<td>Mexico</td>
<td>9</td>
<td>$5-10</td>
<td>0/yr</td>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>

**Note.** Values under income represent income in thousands of dollars. Edu = Education; BSE = Breast Self Exam; CBE = Clinical Breast Exam; Mammo = Mammography.

Rapport between the interviewer and women in group four was easily established. The group was ideally composed of seven women. During the interview some women expressed that they thought they were going to attend an instructional presentation on breast cancer; they were given written information at the end of the interview.

Although Teresa was the president of the women’s group at the church, she did not seem to be regarded as “the leader.” Teresa was also the most educated regarding breast cancer screening techniques, but did not present herself as “the expert.” Susana seemed to be the most knowledgeable regarding Mexican cultural health beliefs. Maria B appeared to be the least knowledgeable about Mexican cultural beliefs and breast cancer screening techniques. Anita was the “dominant talker,” however, she was not intrusive when other women spoke. Berta, Modesta, and Maria A were somewhat “shy,” but when probed they shared their comments without hesitation.
Group Five Profile

The FGI participants for group five were recruited from the city of Fort Worth, Texas, and interviewed at a community health clinic. The FGI was conducted in Spanish. Participants for this group were selected to represent women with a low level of education. That is, women who did not have a high-school education were recruited. On the average, women in group five had attained a fourth grade level of education (M = 4.75, SD = 2.06). The average annual income for the group was less than $5,000 dollars (M = 1.75, SD = .50). The annual income for all women in the group (see Table 5) was below 200 percent of the Federal poverty guidelines (U. S. Bureau of the Census, 1995). Women had on the average a low level of acculturation (M = 2.15, SD = .93). Regarding women's adherence to breast cancer screening guidelines, two women were complying with both the recommended annual mammogram and the annual CBE; and two women were doing BSE at least 10 to 12 times a year (see Table 5). On the average, women reported performing BSE 3 to 5 times a year (M = 3.75, SD = 1.50), obtaining a mammogram (M = 1.00, SD = .82) and a CBE (M = 1.00, SD = 1.68) a year ago.

Table 5

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Birth</th>
<th>Edu</th>
<th>Income</th>
<th>BSE</th>
<th>CBE</th>
<th>Mammo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mary</td>
<td>75</td>
<td>U.S.A.</td>
<td>7</td>
<td>$10-20</td>
<td>10-12/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
<tr>
<td>2. Irene</td>
<td>70</td>
<td>U.S.A.</td>
<td>3</td>
<td>$5-10</td>
<td>3-5/yr</td>
<td>2 yrs ago</td>
<td>2 yrs ago</td>
</tr>
<tr>
<td>3. Maria</td>
<td>77</td>
<td>Mexico</td>
<td>3</td>
<td>$5-10</td>
<td>10-12/yr</td>
<td>3+ yrs</td>
<td>3+ yrs</td>
</tr>
<tr>
<td>4. Enriqueta</td>
<td>72</td>
<td>Mexico</td>
<td>6</td>
<td>less $5</td>
<td>1-2/yr</td>
<td>last yr</td>
<td>last yr</td>
</tr>
</tbody>
</table>

Note. Values under income represent income in thousands of dollars. Edu = Education;
BSE = Breast Self Exam; CBE = Clinical Breast Exam; Mammo = Mammography.

Rapport between the interviewer and women in group five was easily established. Although the group was composed of four women, rather than the expected seven, a group discussion was possible. A friendly atmosphere prevailed throughout the interview, perhaps because women knew each other before the interview since they attended the same senior home center in the community.

None of the women in group five appeared to take the role of "the leader." Although Enriqueta had gathered together these group women, she was no regarded as the leader of the group. Mary was the most educated regarding breast cancer screening techniques and shared her knowledge by somewhat presenting herself as "the expert." That is, Mary would tell other women who did not engage in breast screening behaviors that they were negligent and that it was important for them to do it. She would also tell women that some of their health beliefs were wrong. However, when Mary was reminded that the purpose of the group was to discuss what women thought about themselves and not others, she would stop her "expertise" comments. Mary was also the "dominant talker," but, was not intrusive when others spoke. Women in the group appeared somewhat intimidated by Mary and they were somewhat hesitant to talk at the beginning; however, with encouragement and reassurance that their comments were valuable, they continued to share their opinions without hesitation. Irene appeared to be the most knowledgeable about Mexican cultural health beliefs. Maria was somewhat "shy," but when probed she would share her comments. Maria appeared to be the least knowledgeable regarding breast cancer screening techniques.
Procedures

Recruitment of group participants

Senior centers, retirement homes, health centers, and churches were contacted by phone by a graduate student. A contact person (e.g., agency or program director, group leader) was identified first. The graduate student explained to this person that a study was being conducted to find out about women’s health behaviors. She explained that women were going to be asked about their breast cancer screening. If the contact person expressed interest, arrangements were made to conduct a focus group at their center or institution. For example, some centers, clinics, and churches had an appropriately equipped room (e.g., social activities room) where women were gather for the focus group. It was thought that at these facilities women would feel more comfortable and would be able to access them more easily. However, there were some women who did not have transportation (e.g., car) to attend. Thus, arrangements were made to facilitate transportation (e.g., volunteer researchers transported women from their homes).

Women were invited to participate in a focus group to discuss “health concerns of ‘Mejicanas’ (women of Mexican descent), specially with regard to breast cancer.” Those who agreed to participate were given a brief oral explanation of the nature of the study and a letter (see Appendix A) with the dates and location where the focus groups would be held. Women were given during the focus group a traditional Mexican meal (e.g., tacos, burritos, Spanish rice, coffee, bakery). Women who participated were also given a 20 x 12 inch canvas tote bag that included written information about breast cancer and breast cancer screening techniques. In addition, women were given $10 cash incentive.
Questionnaire and Informed Consent

Women who agree to participate were given oral and written information about the study. A signed informed consent to participate in the study was requested from them. Women chose an informed consent form either in English (see Appendix B) or Spanish (see Appendix C). They were sign two copies, one to keep for their records and another for the researcher's records. In addition, women were asked to answer a short questionnaire to gather sociodemographic, acculturation level, and breast cancer screening behavior information. Since some women had problems with their vision, they were given two choices: a) to receive a copy of the questionnaire to self-administer; or b) to have the questionnaire read to them. They were given an English (see Appendix D) or Spanish (see Appendix E) version of the questionnaire as they preferred. Questionnaires included appropriate written instructions. Content of each questionnaire included:

Health Professional Interventions. Women were asked: (a) if a health professional (e.g., doctor, nurse) had taught them how to examine their breast; and (b) if a doctor had recommended for them a mammogram every year. These questions are in the first part of section I of the questionnaire (see Appendix D).

Country for Health Care. Women were asked in which country they visited a doctor more often: (a) Mexico or (b) United States. This questions is in section I of the questionnaire (see Appendix D).

Use of Alternative Medicine. Women were asked if they have consulted any of the following to maintain their health: (a) curandero/a [healer]; (b) naturista [herbalist]; © pertera [midwife]; (d)clergy (priest); (e) family (who?); (f) other (specify). This questions
Breast Cancer Screening Behavior. Measures of breast cancer screening behavior included: (a) BSE performance in the past month; (b) frequency of BSE performance (number of times in the past year: 0, 1-2, 3-5, 6-9, 10-12 times); (c) recency of mammography (had one: last year, 2 years, 3 years, more than 3 years ago, or never had one; (d) age of first mammogram; (e) number of mammograms in their lifetime; (f) recency of CBE, this was determined by asking them when they had their last pap smear (had one: last year, 2 years, 3 years, more than 3 years ago, never had one). A pap smear test is usually accompanied by a CBE. Women are more familiar with the term pap smear than CBE. Frequency of BSE, recency of last mammogram obtained, and recency of last pap smear obtained, were the only questions used to measure breast cancer screening behaviors. These questions are in section I of the questionnaire (see Appendix D).

Sociodemographic Information. Women were asked to report their age, marital status, level and place of education (Mexico or U.S.), employment or retirement status of themselves and their partners, current or past occupation of themselves and their partners, health insurance coverage, annual personal income, and place of birth of themselves, their parents, and their grandparents. These questions are in section II and III of the questionnaire (see Appendix D).

Acculturation. A measure of acculturation was given to study participants since acculturation has been found to be a reliable estimate of the potential contributions of cultural variance to breast cancer screening behaviors (Coe et al., 1994; Elder et al., 1991; Stein & Fox, 1990). Saint-Germain and Longman (1993) also observed some differences
in perceived psychological consequences of being diagnosed with breast cancer among Hispanic women based on level of acculturation. Feelings of hopelessness, powerlessness, and curtailed time perspective were significantly more likely to be experienced in more severe degrees by women who were less acculturated to the U.S. culture, more specifically those who tended to be Spanish speakers rather than English speakers.

The modified version (Elder et al., 1991) of Cuellar et al.'s (1980) Acculturation Rating Scale for Mexican Americans (ARSMA) was used in this study to measure acculturation as a unidimensional construct. The modified scale elicits information concerning the language the respondents prefer to read and to speak (Spanish, English, or both), the country in which they spent the majority of their childhood and adolescence (Mexico, United States, or both), the ethnicity of their closest friends (Hispanic, Anglo, or both), and the degree of pride they feel in their Hispanic heritage. The acculturation scale had a good internal consistency (alpha=.80) with a sample of 358 Hispanics and 113 Anglos, 18 years of age or older. In this study, one item (“Pride in having a Hispanic background”), which had almost no variability, was deleted to obtain an internal consistency of .83. The scores for every item ranged from 1 to 5, with higher scores indicating a higher degree of acculturation. A mean score over all items will yield a General Acculturation Index (AI). An AI between 1.00 and 2.39 was used as an indicator of lower level of acculturation. An AI between 2.40 and 5.00 was used to indicate a higher level of acculturation (Balcazar, Castro, & Krull, 1995). Acculturation items are in section III of the questionnaire, listed in Appendix D.
Focus Group Interviews

The FGIs were conducted by a team of researchers and volunteers. The principal researcher of this study was the moderator of the FGIs. She was primarily concerned with directing the discussion, keeping the conversation flowing, and taking minimal notes. The notes of the moderator were not so much to capture the total interview, but rather to identify future questions that needed to be asked to clarify the participants' answers to the initial questions. An assistant researcher was a health professional experienced in health education research. The assistant researcher was taking comprehensive notes of the focus group participants' comments and at times request further explanation from the participants to clarify their comments. She also timed the discussion to ensure coverage of all the questions of interest. The researcher and the assistant researcher performed a postmeeting analysis of each focus group session to discuss each other's observations and impressions regarding the group process (e.g., role of participants during the discussion) and the quality of the information elicited. A third person, a volunteer, was in charge of handling the environmental conditions and logistics (e.g., snacks, lighting, seating). She dealt with distracting interruptions to the focus groups such as latecomers, unwanted background noise, etc. This person was also operating the tape recorders. Two tape recorders were used to ensure a comprehensive record of the focus group sessions. All of the team members were Hispanic females fluent in the Spanish and English languages.

Each session lasted approximately 90 minutes, although participants were asked to come 30 minutes earlier for a short period of socialization while eating their meal, and to ensure that all participants were present at the time of beginning the interview. During
the 30 minutes, participants were also welcomed and asked to introduce themselves.

Following their introduction, they were given a short description of the study. They were asked to sign an informed consent form and to answer a sociodemographic questionnaire.

Before beginning the FGI, they will be introduced to the following ground rules:

1) All women are invited to participate.
2) Only one person speaks at a time (remember the tape recorders).
3) Make sure comments address the issue.
4) Every person's comments are important.
5) Everything said will be kept confidential by all group participants.

The FGI began with an ice breaker to encourage individual participation in a group setting (Krueger, 1988). Each participant was asked if they knew a woman who had breast cancer or heard from somebody about a woman who had breast cancer. This question also helped participants to focus on the topic. Following the question, the interviewer asked open-ended questions geared towards all group participants. The open-ended questions sought to answer this study's research questions. As the answers obtained in a particular focus group were analyzed, the questions changed for future FGIs in order to satisfactorily answer the research questions and for theoretical sampling purposes. That is, questions changed in order to expand on health belief categories, or their dimensions and properties, and to clarify the relationship between them around a phenomena of interest to the emergent theory. Due to the saturation of some categories after conducting the fourth FGI, the questions for group five were less open-ended and more focused on existing gaps in the theory. Thus, the questions for the five groups were
somewhat different but they were all geared towards answering the guiding research
questions and the emerging theory. The questions for the FGIs were structured as
suggested by Krueger (1988, pp. 59-71), followed by question clarifying comments given
by women during the discussion. The questions for the five FGI were:

**Group 1.** Questions for group one were given in Spanish, but are translated here:

Question 1: What kind of person do you think gets breast cancer? Spanish: A que
tipo de persona piensa usted que le da cancer del seno? (Note: person is used instead of
women because in Spanish “persona” implies also personality characteristics).

Questions used to prompt responses: Which women get breast cancer? Why do
you think these people get cancer?

Question 2: How would you feel if you got breast cancer? Spanish: Como se
sentiria si a usted le diera cancer del seno?

Questions used to prompt responses: What kind of feelings or emotions would
you have if you got breast cancer?

Question 3: What could prevent you from getting breast cancer? Spanish: Que
podria prevenir que a usted le de cancer del seno?

Question 4: What could prevent you from dying of breast cancer? Spanish: Que
podria prevenir que usted muera de cancer del seno?

Questions used to prompt responses: What things can you do (or not do) to
prevent dying from breast cancer? Who would you go to?

Group participants were given a brief explanation about three breast cancer
screening techniques (i.e., breast self-exam, clinical breast exam, and mammography).
Then they were asked:

Question 4: What do you think about monthly BSE? When not expressed they were asked: how do you feel about doing it yourself? Spanish: Que piensa usted acerca del autoexamen mensual? Como se siente usted con respecto a hacérselo usted misma?

Questions used to prompt responses: How do you think doing BSE can help you?

Question 5: What do you think about a clinical breast exam from a physician or nurse? When not expressed they were asked: how do you feel about consulting a physician or nurse? Spanish: Que piensa usted acerca de un examen clinico del seno por un medico o enfermera? Como se siente usted con respecto a consultar un medico o enfermera? (Note: In Spanish, the word doctor implies a male person and the word nurse a female person).

Questions used to prompt responses: How do you think getting a clinical breast exam from a physician or nurse can help you? And, How do you feel about consulting them?

Question 6: What do you think about getting a mammogram? When not expressed they were asked, how do you feel about getting one from a radiologist? Spanish: Que piensa usted acerca de obtener un mamograma? Como se sentiria usted de consultar con un radiologo? (Note: In Spanish, the word radiologist implies a male person so the female form was used with a follow up question). What if you get a [female] radiologist? Spanish: Que pasa si en lugar de un radiologo es una radiologa?

Questions used to prompt responses: How do you think getting a mammogram could help you? And, how do you feel about consulting a radiologist? a [female]
radiologist?

Question 7: What do you think will motivate you to do a monthly BSE? to get an annual CBE? to get an annual mammogram? Spanish: Que piensa usted que la motivaría a que se haga el autoexamen mensual? a que obtenga un examen clínico anual? a que obtenga un mamograma anual?

Questions used to prompt responses: What circumstances are needed? Which conditions would encourage you to do BSE, to obtain a CBE, or to obtain a mammogram?

Group 2. Questions for group two were asked in English, thus, no translation to Spanish is provided. Women in group two were highly educated. It was expected that they would give more educated responses about breast cancer and breast cancer screening, so they were asked more specifically about cultural health beliefs. They were also asked how cultural health beliefs influenced their breast cancer screening behaviors. Women in group two indicated on their own, without prompting, how education, income, and acculturation influenced their own beliefs and their breast cancer screening behaviors.

Question 1: What do you think are the cultural or traditional health beliefs among Mejicanas (women of Mexican descent) regarding the causes of breast cancer?

Questions used to prompt responses: What do you think your mother or grandmother from Mexico would have said are the causes of breast cancer?

Question 2: A) How do you think Mejicanas feel about getting breast cancer?

Questions used to prompt responses: Do you think those feelings are shared by Mejicanas?
Question 3: Based on cultural health beliefs, what do Mejicanas think could prevent them from getting breast cancer?

Questions used to prompt responses: What have you heard other Mejicanas in your family say could prevent getting breast cancer?

Question 4: Based on cultural health beliefs, what do Mejicanas think could prevent them from dying of breast cancer?

Questions used to prompt responses: What have you heard other Mejicanas in your family say could prevent a woman from dying of breast cancer?

Group participants were given a brief explanation about three breast cancer screening techniques. Then they were asked:

Question 5: In terms of breast self-exam, what cultural health beliefs may encourage or prevent Mejicanas from doing it themselves?

Questions used to prompt responses: What have you heard other Mejicanas in your family say about touching their breast to do a breast self-exam?

Question 6: What do you think are the cultural health beliefs that prevent or encourage Mejicanas to obtain a clinical exam from a physician?

Questions used to prompt responses: How do they feel about getting a clinical breast exam from a physician or nurse? How do you feel about going to a male or a female physician?

Question 7: What cultural health beliefs do you think may encourage or prevent Mejicanas from obtaining a mammogram?

Questions used to prompt responses: What do you think women think or feel
about the mammography machine?

**Group 3.** Questions for group two were asked in English, thus, no translation to Spanish is provided. Women in group two indicated on their own, without prompting, how education, income, and acculturation influenced their beliefs and their breast cancer screening behaviors.

**Question 1:** Think back when you were growing up, what comments did you hear from women in your family regarding breast cancer?

A) What do you think are the causes of breast cancer?

Questions used to prompt responses: What have you heard other Mejicanas say are the causes of breast cancer?

**Question 2:** How would you feel if you were to get breast cancer?

A) What would other women in your family feel, other Mejicanas, about getting breast cancer?

**Question 3:** What do you believe could prevent you from getting breast cancer?.

**Question 4:** What do you think could prevent you from dying of breast cancer?

Questions used to prompt responses: What in the culture do you think might encourage or prevent them from screening?

Group participants were given a brief explanation about three breast cancer screening techniques. Then they were asked:

**Question 5:** Let's talk about the breast self-exam, how do you feel about doing it yourself?

Questions used to prompt responses: How do you think other women in your
family would feel, like your mother and grandmother would feel?

Question 6: What about going to the doctor to get a clinical breast exam, how do you feel about that?

Questions used to prompt responses: What about going to the doctor? Would you say that we Mejicanas prefer to go to a female doctor? What would your husbands say or think, or other family members about having a male or female doctor?)

Question 5: What about mammography, how do you feel about getting a mammogram?

Questions used to prompt responses: Any beliefs that you heard while growing up from your mother or grandmother that may encourage or prevent them from getting a mammogram?

**Group 4.** Question for group four were in Spanish, thus, an English translation is provided:

Question 1: What did you hear, while you were growing up in your family, women said about breast cancer? Spanish: Que oyeron ustedes cuando estaban creciendo en su familia, de otras mujeres, decir acerca del cancer del seno?

Question 2: What do you think causes breast cancer? Spanish: Que piensan ustedes que causa el cancer?

Question 3: How would you feel if you got breast cancer? Spanish: Como se sentirian ustedes si les diera cancer del seno?

Questions used to prompt responses: How would you feel when you receive the news that you got breast cancer? Spanish: Como se sentirian cuando les dan la noticia de
que tienen cancer del seno?

Questions used to prompt responses: What happens in our culture when a woman is missing her breasts? Spanish: Que pasa en nuestra cultura cuando a una mujer le hacen falta los senos?

Question 4: What things do you think we believe in our Mexican culture could prevent us from getting breast cancer? Spanish: Que cosas piensan ustedes que se piensa en nuestra cultura Mexicana, que puede prevenir que nos de cancer del seno?

Question 5: What things do you think could prevent or keep you from dying of breast cancer? Spanish: Que cosas piensan ustedes que podrian prevenir o evitar que ustedes mueran del cancer del seno?

Group participants were given a brief explanation about three breast cancer screening techniques. Then they were asked:

Question 6: What do we believe in our culture about touching one’s breast? Spanish: Que se cree en nuestra cultura Mejicana acerca de tocarse los senos?

Questions used to prompt responses: What is in our culture, what have we heard from our grandmothers and mothers about touching oneself? Spanish: Que se dice en nuestra cultura, que ha oido decir nuestras abuelitas y madres acerca de que nos toquemos?

Question 7: How do you feel about going to the doctor for a clinical breast exam? What has been said in our culture about going to be touched by a doctor? Spanish: Como nos sentimos de ir al medico? Que se habla en nuestra cultura cuando uno va a que el doctor le toque?
Question 8: What do we believe in our culture could encourage or prevent us from going to obtain a mammogram? Spanish: Que pensamos en nuestra cultura que nos pueden motivar o que puede evitar que nosotros vayamos a tomar un mamograma?

Questions used to prompt responses: Have you heard anything about going to a herbalist or consulting with a midwife instead? Spanish: Que han oido ustedes de ir con el naturista o consultar con la partera?

Group 5. Questions for group five were given in Spanish but an English translation is provided in this section. This group was conducted after the data analyses for the previous groups was completed and the theory began to be integrated. Thus, questions for group five were more focused:

Question 1: Try to remember what things did you hear about cancer when you were younger? Spanish: Trate de recordar que cosas oyo usted sobre el cancer cuando era joven?

Questions used to prompt responses: Why do you think that in our culture we try to hide it when somebody in our family is sick? Spanish: Porque piensan ustedes que se mantiene asi oculto cuando en nuestra familia alguien esta enfermo?

Question 2: What do you think causes cancer, regardless of whether other people think about our cultural beliefs? Spanish: Que piensan ustedes que causa el cancer, sin importar lo que otros piensen hacerca de nuestras creencia culturales?

Questions used to prompt responses: A) What do we believe regarding breastfeeding? Que piensan acerca de dar el pecho?

B) Have you ever heard from other Mejicanas that breast cancer is caused because
you breast are handled when you get married? Do you think it is related? Spanish:
Nunca ha oído usted a otras mejicanas decir que porque uno se casa y deja que la toque, a
veces, sobre todo los senos le da cancer? Piensan ustedes que eso está relacionado?

Question 3: How would you feel if you got breast cancer? What kind of feelings
would you have? Spanish: Como se sentirían ustedes si les diera cancer del seno? Sus
sentimientos como serían?

Questions used to prompt responses: Why do you think that some husbands would
not like their wives to have their breast removed? Spanish: Porque piensan ustedes que a
algunos esposos no les gustas que a sus esposas les quiten los senos?

Question 4: What kind of women do not get breast cancer? Spanish: A que
personas piensan ustedes que no les da cancer del seno?

Questions used to prompt responses: Why are we bothered when a good person
gets breast cancer? Spanish: Porque será que nos molestan cuando sabemos que a una
buena persona le ha dado cancer del seno?

Question 5: What do you think could prevent you from dying of breast cancer?
Spanish: Que piensan ustedes que pueda prevenir que mueran de cancer del seno?

Questions used to prompt responses: What other things? Maybe going to a
psychic or to a curandero(a)? Spanish: Que otras cosas? Quizás ir con un psiquico o un
curandero(a)?

Group participants were given a brief explanation about three breast cancer
screening techniques. Then they were asked:
Question 5: Sometimes Mejicanas do no do breast self-exam, what do you think are the reasons why we do not like to do it? Spanish: A veces las mujeres Mejicanas no nos hacemos el autoexamen, cuales creen ustedes que pueden ser las razones porque las que no nos gusta hacernos?

Questions used to prompt responses: What would our grandmother say if they saw us touching ourselves? Why is it not accepted that we touch our intimate parts? Spanish: Que dirian las abuelitas si me vian tocandome? Porque no se acepta que nos toquemos nuestras partes intimas?

Question 6: Many of us dislike going to the doctor to do a breast exam, what are some of the reasons for this? Spanish: A muchas de nosotras no nos gusta eso de ir al medico a hacernos examenes del seno, que piensan ustedes que pueden ser las razones?

Questions used to prompt responses: What are the risks we take when we go to the doctor for a breast exam? Spanish: Que riesgos corremos con ir al medico a hacernos estos examenes?

Question 7: Besides being costly, what are the personal reason for which we do not go to obtain a mammogram? Spanish: A parte de son caros, cuales seran las razones personales por las cuales no vamos a hacernos el mamograma?

Questions used to prompt responses: Mejicans do not like for others to see our breast, is that the main reason why we do not go to obtain a mammogram? Spanish: A las mejicanas no nos gusta que vean nuestros senos, es esa la razon principal por la que no vamos a hacernos el mamograma?
For closure to the five FGIs, the moderator described again the purpose of the study and asked a final open-ended question: “Do you think we have missed anything in the discussion?” If comments were made, the moderator ensured that they did not last longer than 10 minutes. Additionally, she asked: “Do you have any questions for me?” Any required answers did not last longer than 5 minutes. For example, women in group two who were highly educated inquired about the purpose of the study, the reliability of qualitative findings, the size of the study’s sample, etc. Their questions were answered briefly without compromising the integrity of the study.

**Overview of Analyses**

**Grounded Theory Analyses**

Of main interest in this study was to obtain a detailed description of the attitudes, feelings, and health beliefs regarding breast cancer and breast cancer screening techniques of the women of Mexican descent that participated. These descriptions were analyzed and then integrated into a theoretical model for conceptualizing how cultural health beliefs impact breast cancer screening behaviors. Grounded theory (Strauss & Corbin, 1994) was used for the development of the culturally-based theoretical model. The grounded theory approach to qualitative data analysis was developed by Glaser and Strauss (1967) as a general methodology for developing theory that is grounded in data systematically gathered and analyzed.

Since the introduction of grounded theory 30 years ago, several guidelines and procedures have evolved to describe the procedural details of how to do grounded theory by explaining a number of stages through which a grounded theory study progresses.
(Bartlett & Payne, 1997). The main procedures used in grounded theory will be summarized and explained here for the purpose of illustrating how this study on breast cancer screening behaviors of women of Mexican descent progressed. However, before proceeding with this explanation, it is important to point out that the stages of these procedures were not discrete and at times they did not follow each other in a strict linear sequence (Bartlett & Payne, 1997). As noted by Strauss (1987), the procedures for discovering, verifying, and formulating theory are in operation sequentially as well as simultaneously throughout a research project.

**Stage 1: Data collection.** Focus group interviews are among the techniques used in grounded theory that facilitate the understanding of the participants’ shared meanings (Basch, 1987; Morgan & Spanish, 1984). FGIs were used in this study as the principal technique for grounded theory data collection. Data was obtained from five focus groups.

**Stage 2: Transcription of data.** Transcription was purely a mechanical task. It involved listening to tapes and transcribing its content into written words. Some researchers (e.g., Bartlett & Payne, 1997; Strauss & Corbin, 1990) indicate that it is important to transcribe everything until enough data has been collected to allow theory to emerge. Then, when theory begins to emerge the researcher can selectively transcribe only data regarded as important by theory. In this study, transcription was not selective, instead, full transcriptions of the data were produced for each group in order to avoid losing any information that later may be regarded as important. In addition, behavioral observations (e.g., nodding of head in agreement) were added to help confirm or disconfirm group consensus on an attitude, feeling, or belief expressed during the FGI.
**Stage 3: The development of categories.** Categories were developed by the method known as "open coding" which consisted of reading through the transcript line by line and breaking down the data to identify attributes of the emerging phenomena (e.g., information passing regarding cancer). Next, concepts related to the same phenomenon were grouped (categories) with their identified properties and dimensional locations. The conceptual categories were at a higher level of abstraction than the individual concepts (e.g., secrecy about illness).

**Stage 4: Saturate categories.** Open coding came to a temporary stop when the categories had been saturated. Strauss (1987) called this "theoretical saturation" and described it as the point at which additional analysis no longer contributes to discovering anything new about the data and thus it is not a discrete stage of the research. Saturation occurred at different times for different categories and it was ultimately a decision that the researcher had to make in consultation with other researchers (Bartlett & Payne, 1997).

**Stage 5: Abstract definitions.** This stage involved formulating an abstract definition of each of the categories (e.g., Secrecy) and subcategories (e.g., secrecy about illness, secrecy about female anatomy). By this stage, the researcher had saturated the categories and constant comparisons had generated an accumulated knowledge about each of the categories in the form of a number of code notes and memos relating to them and their properties and dimensions (Bartlett & Payne, 1997). At this point, the researcher formulated an explicit abstract definition of each category (e.g., Secrecy) by integrating the categories' properties (e.g., information passing, information acquisition).

**Stage 6: Theoretical sampling.** Theoretical sampling refers to the process of
deciding what data to collect next, from one focus group to the other, and where to collect it by sampling particular groups of people according to their significance to the development and testing of the emergent theory. Due to limitations in resources such as lack of personnel, time, and money as well as limitations accessing certain groups of women (e.g., women age 90 and over), theoretical sampling was conducted as dictated by knowledge of the literature relevant to women of Mexican descent (e.g., Borrayo, 1997; Calle et al., 1993; Stein & Fox, 1990; Solis et al., 1990). More specifically, data was collected from groups of women who differed in sociodemographic variables (e.g., income, level of education, language of preference) that have been found to be significant predictors of breast cancer screening behaviors.

**Stage 7: Axial coding.** Axial coding refers to the process of relating categories with subcategories through the use of a "paradigm model" (Strauss & Corbin, 1990). The paradigm model was used for specifying a category (phenomenon) in terms of the conditions that seem to give rise to it (causal conditions); the context (its specific set of properties) in which it was embedded; the action/interactional strategies by which it was managed; the intervening conditions (e.g., health beliefs) that appeared to facilitate or constrain the strategies (e.g., breast cancer screening behaviors) taken by women of Mexican descent; and the consequences of those strategies.

Axial coding further involved: a) drawing relationships between categories and their subcategories; b) verifying the hypothetical relationships against actual data; c) ongoing exploration for categorical and subcategorical properties and dimensional locations; and d) exploring phenomena variations by comparing the patterns discovered.
**Stage 8: Theoretical integration.** Theoretical integration was achieved by the process of "selective coding" (Strauss & Corbin, 1990). This process involved selecting a 'core category,' that is, the central phenomenon of interest was identified (i.e., "feeling healthy"). This is analogous to a summary that provides an overview of a main idea and the important categories that have emerged. Relationships were made at a higher, more abstract level, and validated by returning to the data and looking for evidence that supported or refuted those relationships. It required re-examination of FGI data and checking specifically for further details on exactly what women said they believed.

**Stage 9: Grounding the theory.** "Validating one's theory against the data completes its grounding" (Strauss & Corbin, 1990, p. 133). This was achieved by laying out the theory in the form of narratives and diagrams and then validating it against the data. The relationships that emerged between categories were validated by looking at individual cases (i.e., participant and/or unit of analysis). If there were cases which did not fit the theory, hypothetical explanations were made and the data re-examined to look for additional intervening conditions which could explain the variance, or else the theory was adjusted (Strauss & Corbin, 1990). For example, breast cancer screening behaviors are dependent not only on cultural health beliefs about cancer but also on cultural beliefs about propriety of behavior. Triangulation across data sources (e.g., other qualitative studies) and methods (e.g., quantitative analysis on sociodemographic factors) was used to complete grounding the theory. Through this process, grounded theory meets criteria for doing "good" science: significance, theory-observation compatibility, generalizability, reproducibility, precision, rigor, and verification (Strauss & Corbin, 1990).
CHAPTER III

RESULTS

Descriptive Analyses

There were 34 women of Mexican descent interviewed in the cities of Dallas (n = 15, 44% of this sample), Denton (n = 15, 44% of this sample) and Fort Worth (n = 4, 12% of this sample). As shown in Table 1, the mean age of the women interviewed was 63 years old. There was only one woman age 49 years old; the other 33 women were over the age of 50 as was originally proposed for this study. The mean personal annual income of the total sample was approximately $10,000, with 50% of the participants living below the Federal poverty level. There were 56% of women in this sample who did not have a high school education and 44% who reported a high school education or more.

Table 1

Demographic Characteristics (Continuous Variables)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>62.62</td>
<td>8.35</td>
<td>49 - 81</td>
</tr>
<tr>
<td>Income (annual) (^a)</td>
<td>2.94</td>
<td>1.35</td>
<td>1 - 5+</td>
</tr>
<tr>
<td>Education (years)</td>
<td>9.32</td>
<td>4.42</td>
<td>2 - 17+</td>
</tr>
</tbody>
</table>

Note. (N = 34); \(^a\) Personal annual income: 1 = < $5,000; 2 = $5,001 to 10,000; 3 = $10,001 to $20,000; 4 = $20,001 to $40,000; 5 = > $40,000
Table 2 shows that 62% of the participants were married while 38% were not married. Approximately half were born in Mexico (47%) and half were born in the United States (53%). Consistently with place of birth, approximately 38% of the participants studied in Mexico and 53% studied in the United States. In this sample, 68% of the participants had some type of insurance, while 32% reported having no insurance.

Table 2

Demographic Characteristics (Categorical Variables)

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Married</td>
<td>21</td>
<td>62</td>
</tr>
<tr>
<td>Divorced</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Separated</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Widowed</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Place of Birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td>United States</td>
<td>18</td>
<td>53</td>
</tr>
<tr>
<td>Place of Most Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>13</td>
<td>38</td>
</tr>
<tr>
<td>United States</td>
<td>18</td>
<td>53</td>
</tr>
<tr>
<td>Missing data</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Insurance Coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>23</td>
<td>68</td>
</tr>
<tr>
<td>No Insurance</td>
<td>11</td>
<td>32</td>
</tr>
</tbody>
</table>

Note: (N = 34)
Table 3 indicates that approximately 82% of the participants reported having been taught how to perform BSE by a health professional compared to 18% who reported never having been taught BSE. With regard to mammography, 74% of the participants had had a mammogram recommended to them by a physician and 26% had never had a mammogram recommended to them. The study also examined the use of alternative medicine in this sample by asking participants whether they consulted with other people to maintain their health. As shown in Table 3, 16 women (48% of the sample) reported

Table 3

<table>
<thead>
<tr>
<th>Health Professional Intervention</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Self-Exam taught to woman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>28</td>
<td>82</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Mammogram recommended to woman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>25</td>
<td>74</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>Alternative Medicine Providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curandero/a</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Naturista</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Partera</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Clergy (Priest)</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Family</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Other (Friends)*</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

Note. (N = 34)  * Category “other” includes only “friends.”
consulting other people. Out of these 16 women, 7 (44%) reported consulting their family members and 4 (25%) consulting their friends. However, informal comments by women indicated that the family members and friends they consulted were health care professionals (e.g., nurses, pharmacists). Religious providers (clergy) were consulted by 3 (19%) of the participants. Only 2 (12%) of the participants indicated consulting with a “naturista” (herbalist). Not one woman reported consulting with a curandero/a (folk healer), partera (midwife), or more traditional alternative medicine providers.

Chi-Square analyses were carried out to determine if based on place of birth (U. S. or Mexico), the use of alternative medicine providers and health professional interventions were significantly different. As shown in Table 4, the use of alternative medicine providers was not significantly different for women born in the U. S. or Mexico. It was expected that women born in Mexico would consult more traditional alternative medicine providers than women born in the United States. With regard to health professional interventions, it was found that being taught how to perform BSE by a health professional was not significantly different for women born in the U. S. or Mexico. However, physician’s recommendation for mammography was significantly different. Women born in the U. S. had a higher incidence of having had a physician recommend a mammogram to them. These significant differences are opposite to Borrayo’s (1997) findings in which physician’s recommendation for mammography was not significantly different. However, being taught how to perform BSE by a health professional was significantly different. Women born in the U.S. had a higher incidence of having been taught BSE than women born in Mexico.
Table 4

Comparison of Health Professional Interventions for U.S. and Mexican Born Participants

<table>
<thead>
<tr>
<th>Place of Birth</th>
<th>Health Professional Intervention</th>
<th>χ² test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taught BSE by a Health Professional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Mexico Born (n = 15)</td>
<td>4 (26.7%)</td>
<td>11 (73.3%)</td>
</tr>
<tr>
<td>U. S. Born (n = 18)</td>
<td>1 (5.6%)</td>
<td>17 (94.4%)</td>
</tr>
<tr>
<td>Doctor Recommendation-Mammography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mexico Born (n =16)</td>
<td>7 (43.8%)</td>
<td>9 (56.2%)</td>
</tr>
<tr>
<td>U. S. Born (n = 18)</td>
<td>2 (11.1%)</td>
<td>16 (88.9%)</td>
</tr>
<tr>
<td>Alternative Medicine Providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mexico Born (n = 16)</td>
<td>12 (75.0%)</td>
<td>4 (25.0%)</td>
</tr>
<tr>
<td>U. S. Born (n = 18)</td>
<td>10 (55.6%)</td>
<td>8 (44.4%)</td>
</tr>
</tbody>
</table>

Note. * p < .05

As shown in Table 5, only 23% of the women reported performing BSE twelve times a year and only 56% reported obtaining a mammogram within the past year. Moreover, 12% reported that they had not performed BSE at least once during the past year and approximately 12% reported never having had a mammogram. Women reported these low rates of breast cancer screening although 82% of them had reported having been taught how to perform BSE and 74% had reported having had a mammogram recommended to them. With respect to CBE, 64% of the participants reported obtaining a CBE within the past year and 3% reported that they had never obtained a CBE.
Table 5

**Frequency of Breast Self-Exam (BSE), Mammography, and Clinical Breast Exam (CBE)**

<table>
<thead>
<tr>
<th>Breast Cancer Screening Behavior</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSE during last year (M =2.91, SD =1.64)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None (1)</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>1 to 2 times (2)</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>3 to 5 times (3)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>6 to 9 times (4)</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>10 to 12 times (5)</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td><strong>Mammography last done (M =1.74, SD =1.48)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last year (1)</td>
<td>19</td>
<td>56</td>
</tr>
<tr>
<td>2 years ago (2)</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>3 years ago (3)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>More than 3 years ago (4)</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Never had one (5)</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td><strong>Pap Smear (CBE) last done (M =1.50, SD =1.24)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last year (1)</td>
<td>22</td>
<td>64</td>
</tr>
<tr>
<td>2 years ago (2)</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>3 years ago (3)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>More than 3 years ago (4)</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Never had one (5)</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note.* (N = 34). Missing data on all three breast cancer screening behaviors for three participants (9%).

The distributions of scores for breast cancer screening behaviors, BSE frequency and mammography and CBE recency were visually and statistically examined for outliers, extreme scores, and skewness. BSE frequency was positively skewed which indicates a
tendency in this sample towards a lower frequency (approximately none to 2 times) of BSE performed during the past year. Mammography recency was also positively skewed, which instead indicates a tendency towards fewer years since a mammogram was last obtained (one year being the most recent possible). Pap Smear (CBE) recency was positively skewed, which also indicates a tendency towards fewer years since a CBE was last obtained (one year being the most recent possible).

As shown in Table 6, means and standard deviations on breast cancer screening behaviors, sociodemographic variables, and acculturation were obtained for the entire sample of participants. The sample was divided in two groups based on the participants’ place of birth (U. S. or Mexico). This was done in order to investigate whether women of Mexican descent differed on their breast cancer screening behaviors, sociodemographic variables, insurance coverage, and/or acculturation according to where they were born. Through t-tests, it was found that women born in the U. S. and women born in Mexico had breast cancer screening behaviors that were significantly different for mammography. Women born in Mexico on the average tended to have had their last mammogram approximately 2 years ago while women born in the U. S. on the average tended to have had their last mammogram 1 year ago as recommended by the ACS screening guidelines. Women born in Mexico were also less likely to have insurance while women born in the U. S. were likely to have some type of insurance, Medicare and/or private insurance.

Women of Mexican descent also differed significantly in their socioeconomic status based on their place of birth. Women born in Mexico have on the average an annual income between $5,001 and $10,000 while women born in the U. S. have on the
average an annual income between $10,001 to $20,000. Women born in Mexico had a significantly lower level of education. On the average, women born in Mexico had attained a seventh grade level of education and women born in the U. S. an eleventh grade level. In terms of acculturation to the United States culture, it was found that women were significantly different according to their place of birth. Women born in Mexico were significantly less acculturated than women born in the United States.

Table 6

Descriptive Data of All Participants and Comparing Mexican and U. S. Born Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Subjects (N = 34)</th>
<th>Mexican Born (n = 16)</th>
<th>U. S. Born (n = 18)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Breast Self-Exam</td>
<td>2.91</td>
<td>1.64</td>
<td>2.50</td>
<td>1.79</td>
</tr>
<tr>
<td>Mammography *</td>
<td>1.74</td>
<td>1.48</td>
<td>2.38</td>
<td>1.93</td>
</tr>
<tr>
<td>Clinical Exam a</td>
<td>1.50</td>
<td>1.24</td>
<td>1.50</td>
<td>1.51</td>
</tr>
<tr>
<td>Age (years)</td>
<td>62.62</td>
<td>8.35</td>
<td>62.62</td>
<td>8.79</td>
</tr>
<tr>
<td>Income (annual)</td>
<td>2.94</td>
<td>1.35</td>
<td>2.00</td>
<td>.82</td>
</tr>
<tr>
<td>Education (years)</td>
<td>9.32</td>
<td>4.42</td>
<td>7.00</td>
<td>3.22</td>
</tr>
<tr>
<td>Insurance</td>
<td>.68</td>
<td>.47</td>
<td>.50</td>
<td>.52</td>
</tr>
<tr>
<td>Acculturation</td>
<td>2.66</td>
<td>1.07</td>
<td>1.75</td>
<td>.72</td>
</tr>
</tbody>
</table>

Note. * coded to indicate years since last mammogram and clinical breast exam: 1 = Last year, 2 = 2 years ago, 3 = 3 years ago, 4 = More than 3 years ago, 5 = Never had one.

Income: 1 = < $5,000; 2 = $5,001 to 10,000; 3 = $10,001 to $20,000; 4 = $20,001 to $40,000; 5 = > $40,000. Insurance: no insurance = 0, insurance coverage = 1.

* p < .05. ** p < .01. *** p < .001.
The sample was further divided according to the five focus groups interviewed. Differences between groups in sociodemographic variables, acculturation, and breast cancer screening scores were tested through F-tests to determine whether the five groups were different as originally selected for theoretical sampling purposes. As shown in Table 7, the five groups were significantly different from each other in terms of age, education, income, and acculturation, as it was intended when participants were purposefully selected for each group. Although participants were screened and assigned based on different levels of education, it was expected that these women would also differ in other socioeconomic variables.

As Table 7 shows, women in groups 1 and 5 had the lowest levels of education (no high school education), income (below the Federal poverty level), and acculturation ($M < 2.39$). Following these two groups, women in group 4 had low-to-middle levels of education (sixth grade on but no more than high school), income (below the Federal poverty level), and acculturation ($M < 2.39$). Instead, women in group 3 had middle levels of education (a high school education but no higher than college), income (above the Federal poverty level), and acculturation ($M > 2.40$). At the higher end of the SES spectrum, women in group 2 had high levels of education (a college education or higher), income (above the Federal poverty level), and acculturation ($M > 2.40$).

Women were not selected nor assigned to the five groups based on differences in their breast cancer screening behaviors. As shown in Table 8, the five groups were not significantly different from each other on breast cancer screening behaviors. That is, there were no significant differences in BSE frequency, mammography and CBE recency.
Table 7

Descriptive Data of Sociodemographic and Acculturation Variables for Five Focus Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>1</td>
<td>61.80</td>
<td>9.25</td>
<td>5.90**</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>53.20</td>
<td>3.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>61.00</td>
<td>4.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>66.14</td>
<td>7.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>73.50</td>
<td>3.11</td>
<td></td>
</tr>
<tr>
<td>Education (years)</td>
<td>1</td>
<td>5.30</td>
<td>1.77</td>
<td>26.80***</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>15.00</td>
<td>3.39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>12.88</td>
<td>1.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>9.57</td>
<td>2.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>4.75</td>
<td>2.06</td>
<td></td>
</tr>
<tr>
<td>Income (annual)a</td>
<td>1</td>
<td>2.00</td>
<td>.82</td>
<td>32.92***</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4.40</td>
<td>.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4.50</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.14</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.75</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Acculturation</td>
<td>1</td>
<td>1.84</td>
<td>.74</td>
<td>6.34**</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2.84</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3.20</td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.22</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>2.15</td>
<td>.93</td>
<td></td>
</tr>
</tbody>
</table>

Note. Group 1 (n = 10); Group 2 (n = 5); Group 3 (n = 8); Group 4 (n = 7); Group 5 (n = 4); * 1 = <$5,000; 2 = $5,001 to $10,000; 3 = $10,001 to $20,000; 4 = $20,001 to $40,000; 5 = > $40,000;  * p < .05., ** p < .01., *** p < .001.
Table 8

Descriptive Data of Breast Cancer Screening Behavior for Five Focus Groups

<table>
<thead>
<tr>
<th>Breast Cancer Screening</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breast Self Exam (BSE)</strong></td>
<td>1</td>
<td>2.20</td>
<td>1.75</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3.80</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3.50</td>
<td>1.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.14</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3.75</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td><strong>Mammography</strong></td>
<td>1</td>
<td>2.10</td>
<td>1.91</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.60</td>
<td>1.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.25</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.29</td>
<td>1.89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.00</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Breast Exam (CBE)</strong></td>
<td>1</td>
<td>1.60</td>
<td>1.48</td>
<td>.86</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.00</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.38</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.14</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.00</td>
<td>1.68</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Group 1 (n = 10); Group 2 (n = 5); Group 3 (n = 8); Group 4 (n = 7); Group 5 (n = 4); Coding for number of times BSE was performed during the last year: 1 = 0 times, 2 = 1-2 times, 3 = 3-5 times, 4 = 6-9 times, 5 = 10-12 times; Coding for recency of last mammogram and CBE: 1 = Last year, 2 = 2 years ago, 3 = 3 years ago, 4 = More than 3 years ago, 5 = Never had one.

* p < .05. **p < .01. *** p < .001.
Triangular zero-order correlation matrices were computed to examine the relationships among breast cancer screening behavior scores, sociodemographic variables, and acculturation scores. As shown in Table 9, mammography and CBE were positively correlated \((r = .50, p < .01)\), which indicates that women who engage in mammography screening are likely to also engage in CBE screening. Years since last mammogram was negatively correlated \((r = -.35, p < .05)\) with age and place of birth \((r = -.40, p < .05)\). That is, younger women and women born in Mexico are more likely to have more years since their last mammogram than older women and women born in the United States.

Table 9

Correlations among Breast Cancer Screening, Socioeconomic, Acculturation Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BSE</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mammography</td>
<td>-.15</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CBE</td>
<td>-.13</td>
<td>.50**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Age</td>
<td>-.04</td>
<td>-.35*</td>
<td>-.03</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Place of birth</td>
<td>.17</td>
<td>-.40*</td>
<td>-.02</td>
<td>-.09</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Income</td>
<td>.31</td>
<td>-.19</td>
<td>-.09</td>
<td>-.37*</td>
<td>.68*</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Education</td>
<td>.24</td>
<td>-.21</td>
<td>-.09</td>
<td>-.39*</td>
<td>.49*</td>
<td>.81**</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Insurance</td>
<td>.20</td>
<td>-.47**</td>
<td>-.34</td>
<td>.35*</td>
<td>.35*</td>
<td>.21</td>
<td>.33</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>9. Acculturation</td>
<td>.06</td>
<td>-.29</td>
<td>.05</td>
<td>-.10</td>
<td>.82**</td>
<td>.78**</td>
<td>.57**</td>
<td>.39*</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. \((N = 34)\); Values off the diagonal are Pearson \(r\) correlation coefficients, except for place of birth (Mexico = 0, U. S. = 1) and insurance (no insurance = 0, Insurance coverage = 1) which have a Phi coefficient. BSE = frequency of breast self-exam last year; CBE = years since last clinical breast exam. \(* p < .05. \quad ** p < .01.\)
Surprisingly, in this study BSE was not significantly correlated to mammography or CBE screening. Borrayo (1997) found in a larger sample of women of Mexican descent ($N = 208$) a significant relationship between BSE and mammography screening ($r = -.32, p < .001$). More specifically, she found that women who perform BSE with greater frequency during the past year are more likely to have less years since they obtained their last mammogram. While in this study no significant relationship was found between BSE and age, Borrayo did find a significant relationship ($r = -.17, p < .05$) between BSE and age. That is, she found that women of Mexican descent who are younger tend to perform BSE with more frequency during the past year than older women.

Correlation matrices also allowed the detection of possible unpredicted relationships. In this study, no unexpected relationships were found among socioeconomic variables. As shown in Table 9, education was positively correlated with income ($r = .81, p < .01$), which indicates that women who have higher levels of education also tend to have higher levels of income. Acculturation was also positively correlated with education ($r = .78, p < .01$) and income ($r = .57, p < .01$). That is, women with a high level of acculturation tend to have higher levels of education and income than women with a low level of acculturation. Surprisingly, insurance was not correlated with income and education. Borrayo (1997) did find that insurance was significantly related to income ($r = .23, p < .001$) and education ($r = .20, p < .001$). In this study, insurance was only positively correlated with acculturation ($r = .39, p < .05$), that is, women who have some type of insurance are more likely to be highly acculturated to the U. S., perhaps because they are also likely to have been born in the United States ($r = .35, p < .05$).
Theoretical Analyses: Themes

Grounded theory research results in categories and themes that tell the story in the voice of the participants (Strauss & Corbin, 1990). In this study, the collective voices of women of Mexican descent expressed a series of cultural beliefs that are related to breast cancer and breast cancer screening techniques. As Figure 1 illustrates, cultural health beliefs concerning breast cancer illness were expressed around three major categories or themes: the causes of the illness (i.e., detrimental sources, breastfeeding, physical predetermination, divine predestination); the nature of the illness (i.e., fatal, shameful, contagious, symptomatic); and the responsibility for the illness (i.e., “just world” belief, self-denial of illness, acceptance of illness). As Figure 2 illustrates, cultural beliefs specific to screening behaviors were expressed around two categories or themes concerning propriety of behavior: female behavior (i.e., female decency, female identity, female commonality); and health professional behavior (i.e., distrust, “confianza”).

In this section, each theoretical theme will describe the cultural beliefs concerning breast cancer illness and breast cancer screening behaviors followed by excerpts with the exact words of the participants to illustrate the themes. The excerpts were chosen from the five FGIs; however, since each group was asked slightly different questions for theoretical sampling purposes, some themes are missing an illustration from one or more groups. In a few instances, the theoretical themes did not emerge as clearly in some groups as they did in others or the discussion around a particular theme was too lengthy to be included in this section. Thus, excerpts were chosen from those groups that best illustrate the themes.
Figure 1. Cultural health beliefs about breast cancer illness that influence breast cancer screening behaviors.

Figure 2. Cultural beliefs about propriety of behavior that influence breast cancer screening behaviors.
The Causes of the Illness

Women of Mexican descent participating in the five FGI’s expressed mostly that they were not certain about the causes of cancer. They indicated that they have heard from different informants (e.g., family, media, health care professionals) about some possible sources that women believe are detrimental to one’s health. Women made the generalization that if these sources are harmful to one’s overall health, they could produce illnesses such as breast cancer. Women participating in groups 1, 3, and 4 also made generalizations regarding how breastfeeding can prevent or cause breast cancer illness.

With more certainty, women of Mexican descent in all five groups pointed to their beliefs regarding physical predetermination (e.g., heredity) and divine predestination (e.g., “God’s will). As one woman explained: “I think that the cultural part comes in terms that you are predestined to come down with a disease” (Anita, group 2). Thus, women of Mexican descent believe in four major causes of breast cancer: detrimental sources, breastfeeding, physical predetermination, and divine predestination.

Detrimental sources. Women pointed to various detrimental sources which can be categorized in two types: a) environmental, and b) behavioral/physical sources.

Environmental sources are believed to enter the human body from the surrounding environment through mostly oral means. Women of Mexican descent believe that certain harmful substances such as nicotine, caffeine, processed food, contaminated food, too much fat, diet and hormone pills, among other sources, can cause cancer. For example:

Porque siempre he oido yo ese comentario, que fumar perjudica la salud y el cancer sobretodo.... y el cancer es el que pienso yo que busca eso. Es materia
que no debería ir dentro y el cancer busca eso. [Because I have always heard that commentary, that smoking is harmful to one’s health and above all to cancer.... and cancer, I believe, looks for it. It’s material that should not go inside because cancer searches for it.] (group 1, 186)

I think that a lot of people believe that it involves diet. And it involves your environment. Things that we are exposed to everyday...how people think we get cancer? Because of the environment around us, the pollutants that we are exposed to every day. Just different things, additives that are put in the food. (group 2, 20)

A lot of caffeine. The reason I am saying that is because I heard that if you drink a lot of coffee, you get all these little tumors in your breast and they can develop into malignant tumors [breast cancer].... that’s why I have cut down on my coffee. (group 3, 107)

Dicen que por la comida. Por ciertas comidas...que por la carne. Pero no, la gente no se moría antes. Ahora están las cosas contaminadas. Antes se comía carne que no pasaba por tanto proceso y todos comían carne. [It's said that it's due to the food. Due to certain food...such as meat. Put people did not die years back. Now things are too contaminated. Years back one ate food that did not go through so much processing and everybody ate meat.] (group 4, 182)

Other environmental sources such as harmful pollutants are believed to be directly related to the development of cancer. For example:

Nelda and I went through elementary school together and she developed
breast cancer in her late 20's...when we were growing up they used to drive around with DDT trucks...we all ran behind those trucks because it was fun! And inhaled all that stuff...hers was apparently a direct result of having done that as a little girl.

(group 2, 254)

Natural sources such as viruses, microbes, and/or infections are also believed by women of Mexican descent to be environmental sources harmful to one’s health and to cause cancer. For example:

“Yo veo las noticias...y pienso que si es [breast cancer] como un virus y de repente entra así” [I watch the news...and I think that breast cancer is like a virus and it enters suddenly] (group 1, 59).

“Una herida o un grano que le pueda salir a uno pos se infecta y de ahí se hace canceroso” [An open injury or a pimple that might develop, it gets infected and then it becomes cancerous] (group 4, 197).

**Behavioral/Physical sources** that are believed to cause cancer are physical activities harmful to one’s body. Women of Mexican descent identified activities such as a sedentary lifestyle, sexual activity, and physical trauma (“un golpe”). The most common activity mentioned was causing some type of physical trauma. For example:

(Speaker 1) Well, when my sister started to be sick...we thought that she hurt [herself]. (Speaker 2) Of an injury? Like “que se pego y por eso le vino el cancer?” [“that she bumped herself and that’s why she got cancer?”] (Speaker 3) I have heard that too. Si, que se golpea, si que si se pega en el pecho. [Yeah, if you bump yourself, if you hit yourself in the breast.] (group 2, 73)
Los maestros nos enseñaban que tuvieran mucho cuidado que un golpe podía provocar el cancer...mi mama siempre decía “ten cuidado porque si te das un golpe...te puede venir cancer...” y que en el pecho “nunca andes levantando cosas pesadas porque te puede venir un tumor.” Decían que los tumores puede hacerse cancerosos. [The teachers taught us to be very careful, that a bump could cause cancer...my mother always said “be careful because if you bump yourself...you can get cancer...,” and that with regard to the breast, “never be lifting heavy objects because you can get a tumor.” It was said that tumors can become cancerous.] (group 4, 166)

Other physical activities were not mentioned as often, however, when they were mentioned there was a strong agreement among women regarding their causal role:

If you stop and think way back, long time ago, the ladies didn’t use to get breast cancer. You get it more often now...long time people were more active and did more work around the house and outside the house. Nowadays women like us we don’t do much exercise. We just sit down and watch telenovelas [soap operas] every night or sitting at work working on the computer. So you really don’t do much exercise. You are just like eating and sitting. We don’t walk, we don’t jog, don’t do anything. (group 3, 448)

The handling of the breast...think about it, you are married, your body is not your own...our bodies, our breast, belong now to our husbands! And possibly because they were handled just so, that is why we have to pay the price [breast cancer]. (group 3, 1101)
Breastfeeding. With regard to breastfeeding as a cause of breast cancer, women of Mexican descent have a dual set of beliefs. One is that breastfeeding can prevent getting breast cancer. This belief seems to come mostly from hearing health care providers indicate that breastfeeding is a preventive agent. However, it seems that women use their own interpretation of how breastfeeding acts as a preventive agent. The other belief concerning breastfeeding comes from hearing older women of Mexican descent say that breastfeeding can cause breast cancer. Older women (e.g., grandmothers) have said that if the baby burps air into the breast and this air is not taken out by the feeding mother, the air causes the breast milk to become stagnated and eventually the milk develops into cancer. Women seem to reconcile the information they receive about breastfeeding as a preventive source, by explaining that breastfeeding drains the milk out of the breast. Instead, if a mother does not breastfeed, the breast milk that the body produces becomes stagnated and then becomes cancerous. However, women believe that breastfeeding must be done right by the feeding mother or it will cause breast cancer. That is, the mother should keep the baby from burping air into the breast or she should take the stagnated milk out of the breast. Women explained:

(Speaker 1) La amiga que le operaron los pechos le preguntó al doctor y el le dijo que las mujeres no dan pecho son las que están más aproximadas al cancer.

(Speaker 2) Pero, la que dio pecho [y] la eruto [los senos] y como dicen se complica. (Interviewer - entonces a la hora de erutar que sucede?) (Speaker 3) A la hora de erutar es cuando el niño tiene que estar prendido mamando para que así el mismo con el bao del calientito saque el aire. (Interviewer - y esto como se
relaciona con el cancer?) (Speaker 2) Eso lo complica porque el aire allí se queda y la leche se va cuajando, se va haciendo mala, entonces allí se va haciendo todo [cancer]. Por eso unas que dan pecho y otras que no dan y yo digo pos esta bien, las que damos como quiera lo tenemos que desarrollar porque tenemos que hacernos algo cuando el bebe se eructa. (Speaker 4) Cuando el bebe eructa también uno siente que le duele el pecho porque como que se inflama y necesita uno que hacer algo para volverse a poner el pecho normal como debe de ser.

Porque a veces usamos como liensos de agua caliente o cuando uno vuelve a dar pecho volteraselo al otro lado. Y si vuelve a erutar pos ya quitar uno luego, luego, al bebe. [(Speaker 1) My friend who had breast surgery asked the doctor and he told her that women who do not breastfeed are more susceptible to cancer. (Speaker 2) But to the one that (breastfed) the (baby) and (the baby) burped air this will complicate things. (Interviewer - so what happens when the baby burps air?) (Speaker 3) When the (baby) burps, it’s when the baby has to be very close to (to the breast) so that (the baby) with her/his hot breath can take out that air. (Interviewer - how is that related to cancer?) (Speaker 2) That complicates things because if the air stays there and the milk becomes stagnated and turns bad (sour), it is then that it (cancer) develops. That’s why I say its okay that some breastfeed and that others do not breastfeed, but those of us who breastfeed are likely to develop it (cancer) because we need to do something to ourselves if the baby burps. (Speaker 4) When the baby burps one feels that your breast hurts because it swells and you need to do something to return you breast to normal, like it
should be. Because sometimes we use hot cotton cloth or when one breastfeeds again turn the baby to the side to the other breast. And if the baby burps again, take her off quickly.] (group 1, 251)

One of the things I heard...sometimes was that about the milk, that breastfeeding was very important. That if you didn’t nourish your child, the milk could cause cancer...that the milk would become stagnated in the breast. I guess, if you didn’t breastfeed your baby. (group 3, 174)

Pero saben que decían las personas de entonces, yo digo mi madre y mi abuela? Es que le eructó el niño. Quienes de ustedes oyeron que cuando le eructó el niño cuando lo estaba alimentando y que por eso le salió la bola? Un tumor o no se que seria y si le cortaron el pecho. Pero murió ella como quiera. [Do you know what people then used to say, I mean my mother and grandmother? That she had the baby burped [into her breast]. How many of you heard that when somebody was breastfeeding the baby burped the breast and that is why she got a lump? A tumor or I don’t know what it was but she got her breast removed. Nonetheless, she died.] (group 4, 105)

**Physical predetermination.** Women of Mexican descent expressed an overall belief that human illness is determined in advance, even before humans are born. Women believe there are certain physical ‘markers’ that indicate whether they are physically predetermined to develop breast cancer. The belief in breast cancer predetermination among women in this study encompassed two main themes: a) heredity, and b) dormant illness.
Heredity refers to the belief in the genetic transmission of an illness from family members to other family members. The main belief among women of Mexican decent seems to be that a history of breast cancer in their family makes them more likely to develop breast cancer. Women explained:

Lo del cancer tambien es hereditario. Mi padre murio de cancer, mi hermana esta ahorita muy grave de cancer y el doctor dice que es porque lo [cancer] heredamos. [Cancer is also hereditary. My father died of cancer, my sister has cancer right now and is very sick, and the doctor says that it is because we inherited (cancer).] (group 1, 42)

Viene de herencia “tu abuelita se murio de cancer, mi hijita, mas vale que te cuides tu porque a lo mejor tu tambien.” [It’s hereditary “your grandmother died of cancer daughter, it’s better if you take care of yourself or you’ll go too.”] (group 2, 4)

Heredity some times. That’s what I heard. If cancer is in the maternal side of the family. For example, in my case my doctor watches me very closely because the cancer on my family has been on the maternal side. (group 3, 130)

Lo mismo que dice la señora, pienso que es hereditario. Por ejemplo, si nuestro papa o mama murieron de cancer, pudimos haber heredado esas celulas. Yo tambien pienso que es asi. Porque el año pasado operaron a otra hermana mia que se hayo una bolita...y le dijeron que si era canceroso. [I think the same as what the lady says, that it (cancer) is hereditary. For example, if our father or mother died of cancer, we could inherit those cells. I also think that way. Because last year
my sister had surgery because she found a lump...and they told her that it was cancerous.] (group 4, 200)

Yo pienso mas en eso, porque si en mi familia tiene, ha tenido, o tiene cancer, no sera manana, o pasado, pero este con tiempo, yo puedo tambien salir con cancer. [I believe mostly on that. Because if in a family somebody has, had, or is having cancer, it will not be tomorrow, or the day after, but with time, I can develop cancer.] (group 5, 241)

**Dormant illness** refers to the belief that an illness such as cancer is latent in the body but is capable of being activated. Women of Mexican descent in this study expressed the belief that dormant cancer can develop into breast cancer when a person is physically more susceptible to developing this type cancer. Women also expressed that dormant cancer can develop when a harmful substance enters the body and/or when there are internal body conditions that precede its development. For example:

Porque el cancer lo tenemos todos pero muchos lo desarrollamos y muchos no. Yo pienso que mucha gente le gusta fumar pero no piensan que alli pueden venir problemas. Porque eso es lo que le gusta a el [cancer]. [Because we all have cancer but some of us develop it and others do not. I think that many people like to smoke but they don’t think that problems can come from that. Because it is that which (cancer) likes.] (group 1, 195)

Yo oí un reporte que el cancer todos lo tenemos. Nada mas que en un descuido se desarrolla...como un golpe o una mala comida. Pero mas digo yo un golpe. [I heard a report that we all have cancer. But due to carelessness it can
develop...like a bump or a bad meal. But I say that due to a bump.] (group 4, 186)

La verdad es que todas lo [cancer] tenemos. Todas las enfermedades, pero en unos eso se desarrolla, y a otras no. [The truth is that we all have it (cancer). All the illnesses, but in some it develops and in others it does not.] (group 5, 550)

**Divine predestination.** Women of Mexican descent believe that a supposed divine force, principle, or power named God has destined the individual in advance to develop an illness such as breast cancer. Women of Mexican descent in this study expressed mostly that they could develop breast cancer if it was “God’s will.” For example:

Yo digo que no tener miedo porque en primer lugar pues evitar morir del cancer del seno no puede mas que Dios. Pero si se puede hacer la lucha porque Dios le dio la sabiduría a los doctores para eso. [I would say do not fear because first of all nobody can prevent to die from breast cancer but the only one that can is God. You can try because God gave wisdom to the doctors for that reason.]

(group 1, 329)

But I can remember when I was growing up, when friends of my grandmother...someone that they knew that had cancer, she would, se percinaba [cross herself], you know, and she was like “Ay, pobresita...este...sea por Dios.” [“Oh, poor girl...eh...may it be for God.”] It was more like they just accepted it. It was like “that’s God’s will.” (group 2, 398)

I wouldn’t be surprise if I get it too but like these ladies that are here ‘when it is your turn, is your turn’ and you place everything in the hands of God and let it be his will and accept. (group 3, 360)
Como ya viene en la familia, yo tengo que primero aceptarlo. Atenderme al doctor y si me alivio pues gracias a Dios. Aceptarlo con fe. Hay que aceptar la voluntad de Dios con mucho valor. [Since it runs in the family, I have to first accept it. Seek treatment with the doctor and if I get better, then thanks be to God. Accept with faith. One has to accept the will of God with a lot of courage.]
(group 4, 428)

Eso [cancer], que todo lo que le pase a uno de enfermedad eso es por Dios. Dios es el que dispone todo...las enfermedades que a uno le pasen. [That (cancer), everything that happens to you regarding illness is due to God. God is the One that decides everything...the illnesses that may happen to you.] (group 5, 572)

**The nature of the illness**

Women of Mexican descent expressed a series of beliefs regarding the kind or type of illness they think cancer is. In other words, women attributed certain characteristics or qualities to cancer, in particular breast cancer. These qualities refer mostly to their interpretation of what they perceive are their culture’s health beliefs regarding the nature of cancer. Women in this study believed in four characteristics or qualities of breast cancer: 1) fatal illness, 2) contagious illness, 3) symptomatic illness, and 4) shameful illness.

**Fatal illness.** Women believe that cancer is an illness that inevitably brings death. More specifically, some women expressed that people die of cancer because it is an illness that almost always one cannot control or do anything about to avoid death, in spite of treatment. For example:
Pues yo digo que al final ya no se puede evitar porque el cancer crece y la gente se tiene que morir. Porque a veces si, operan a la persona, pero dicen que vuelve a retoñar, como quiera vuelve. Mi amiga tuvo una operacion y ya no logro reponerse. [Well, I say that at the end it cannot be prevented because cancer grows and people have to die. Because sometimes, the person has surgery, but it’s said that it sprouts again, no matter what, it returns. My friend had surgery and she never got well again.] (group 1, 380)

My mother is 78 but she has very bad heart problems, so if she were to develop cancer at this point in her life, she’d probably say, ‘I was gonna die from one thing or another so...you know, just, I’d rather take advantage of my quality of life than go through radiation and everything else out there. (group 2, 1010)

Me va [el doctor] a operar y a sacar lo que tengo y si es cancer no quiero que me corte [el busto]...pues no, yo dije “de todas maneras me voy a morir y me va ir avanzando, cual es la idea de que me corten.” [If you (doctor) are going to operate and to subtract what I have and if it’s cancer I do not want you to cut it (the breast)...so no, I said “if I will die anyway and it will continue to advance, what’s the point of having it cut.”] (group 4, 340)

Contagious illness: Women of Mexican descent pointed to the belief that other people might perceive a person with an illness such as cancer as having a contagious illness. That is, most women in this study do not believe cancer is contagious; but they think that other people, who may think that it is, may believe that they can get cancer by being in contact with a woman who has breast cancer. Thus, contagious illness may bring
an undesirable stigma to women of Mexican descent. Women in groups 2 and 3 expressed that issues about illnesses such as breast cancer are kept secret in Hispanic families; thus, women in groups 4 and 5 were asked to expand on the reasons for secrecy regarding illness among families of Mexican descent. Women responded that among the reasons for secrecy about illness is the fear of the stigma of having a contagious illness or the fear of having a shameful illness (see beliefs in page 91 in this section). Women explained:

Yo pienso que la gente de antes no quería hablar. Sobre todo los familiares. No querían que se enteraran que algún miembro tenía cancer porque era una cosa como...un leproso. Pues es muy contagioso. Si creían en eso. Creían que era contagio. [I believe that people way back didn’t want to talk about it. Specially the family. (They) did not want others to know that any family member had cancer, it is something like...a leprous. Since it is very contagious. Yes, they believed in that. They thought it was contagious.] (group 4, 65)

Simplemente, fíjate que hay gente que tiene diabetes y no quieren que se sepa, no platican, no le platican a otra gente que tienen. Porque mucha gente piensa que se le va a pegar la enfermedad [el cancer]. Piensan que se le vaya a pegar. Bueno, ya ahora no. Que no se pega. [Simply, there are people who have diabetes and they do not want it to be known by others, they do not talk about what they have with other people. Because many people think that they will get the illness (cancer). They think that they will get it. Well, not any more now. It is not contagious.] (group 5, 31)
Yo no sé mucho de cancer. Mucha gente piensa que cualquier enfermedad se pega, luego dicen que se pega. Como eso de la TB. [I don’t know much about cancer. Many people think that any illness is contagious, they say it can be transmitted. Like TB.] (group 5, 146)

Symptomatic illness. Women voiced the belief that a person is ill only if the persons “feels sick.” More specifically, a person is ill if there are symptoms of an illness present. Some women in this study believe that with breast cancer they would feel certain symptoms (e.g., burning sensation, pain, a lump). Otherwise, if women do not feel any symptoms, they assume that they must not have breast cancer. Women explained:

Cuando yo tenía ese ardor yo fui al doctor. Especialmente porque yo creía que era el cancer y como me ardía bastante, una ansia que me daba a mí que no andaba a gusto. Todo el día pensaba en eso. Yo decía “hay Dios, ya me pego el cancer a mí.” [When I had that burning sensation, I went to the doctor. Specially, because I thought that it was cancer and since it burned a lot, I was so anxious that I couldn’t enjoy myself. All day I thought about that. I said “oh God, I got cancer.”] (group 1, 222)

Es que en Mejico no es como aqui [Estados Unidos]. En Mejico no se usa que vaya a cada año al doctor. Si no está enferma, no va a ver al doctor. No se porque, sera porque no tiene el dinero para pagar para un doctor, o sera porque se sienten healthy! [In Mexico it’s not like here (United States). In Mexico they don’t make it a habit to go every year to the doctor. If you are not sick, you don’t go see a doctor. I don’t know why, if it is because they don’t have the money to pay for a
doctor, or because they feel healthy!] (group 2, 1120)

(Speaker 1) Y también a veces es la economía. Nada más vamos donde el doctor porque nos duele algo. Pero ir porque no te duele nada y que no tienes el dinero, causa problema. Porque hace uno un verdadero sacrificio para ir con el doctor. Pero cuando a uno no le duele nada, nos parece una tontería ir a pagar para que nada más nos examinen cuando no tenemos nada. (Speaker 2) Además como es tan caro. (Speaker 1) Bueno a mí ya no me lo cobran más que una mínima por la asegurancia a los ancianos pero de todas maneras como que “uno no hecha en saco roto!” [(Speaker 1) And sometimes too it's the economy. We only go to the doctor because we feel something (symptoms). But to go, when you have no pain and you don't have the money, that causes a problem. Because one is making a real sacrifice to go to the doctor. But when one doesn't feel pain, it seems foolish to go pay to be examined when we really don't have anything (any illness). (Speaker 2) It is also so expensive. (Speaker 1) Well, I don't pay anything any more but a small fee since I have insurance for the elderly (Medicare) but still it is like one does not “throw into an empty sack!” (cultural saying that in this case means 'putting one’s energy or money into something that does not exist.')]

(group 4, 690)

(Interviewer - porque no nos gusta ir al médico entonces) ...si uno se siente bien, yo digo de mi parte que me siento bien, que no tengo enfermedad.

[(Interviewer - why is it that we don't like to go see the doctor?) ...if one feels fine, I say that for myself since I feel fine, that I am not ill.] (group 5, 890)
**Shameful illness.** This belief refers to the idea that being ill in general brings shame to oneself and/or to one's family. Women in this study indicated that illnesses such as cancer tend to make a person(s) of Mexican descent feel disgraced, belittled, rotten, useless, and dishonored. In anticipation of the stigma of having a shameful illness, women indicated that Hispanic families keep secrecy when a family member is ill. Women believe that in an attempt to keep secrecy, their families never told women about a family member who had and died of breast cancer. Although the belief that cancer is a shameful illness was implicit in the comments of women in all five groups (e.g., indicated that they would feel “ashamed”), women in group 3 best summarized the meaning of having a shameful illness:

(Speaker 1) I am gonna say something that may sound so backwards but...there is families that if something is wrong with you...you go to the doctor and you do find something IS WRONG WITH YOU is almost like, how can I explain this...is almost like...like (Speaker 2) is disgraceful? (Speaker 1) Not a disgrace, I wish I could explain it like that, but is almost like...like it is a downfall if something is wrong. I know a family just like this. (Interviewer - Mejicanos?) (Speaker 1) Mejicanos, oh yeah, they were born here. Then one lady will tell the other oh, there is always something wrong with you. You are always looking for trouble. Stop looking. You should be ashamed of yourself. No estas buena, no eres de buen material [you are no good, you are not made of good material]. Is almost like a pride thing, like ‘pos yo voy a estar mejor que ella y mejor no voy a ver al doctor porque asi estoy mejor’ ['I am going to be better than her and I better
not go to see the doctor, that way I'll be better than her'). Is almost like... (Speaker 2) Belittling? (Speaker 3) You are a hypochondriac? (Speaker 1) No, how can I say this, help me [telling the group]. (Speaker 2) Belittling, demeaning, putting them down? (Speaker 1) Yeah, they do themselves. Among the guys the same way but is almost like... es una DESHONRA si no estan buenos y sanos y si estas enfermo, si sale uno enfermo, entonces es como... 'tu no SERVES para nada, tu no sirves.' [It’s a DISHONOR if you are not good and healthy but ill, if you come out ill then is like... ‘you are no good, you are USELESS.’] And that DOES exist! The only excuse this family has is that none of them were educated so they must have gone by the way their great-grandparents [of Mexican descent] raised them to be. (group 3, 677)

The Responsibility for the Illness.

Women of Mexican descent in this study indicated that they tend to question the person or supernatural power who they perceive is responsible for a physical illness such as cancer, particularly breast cancer. The person they usually question for getting breast cancer is themselves. That is, women question the degree of their personal responsibility for acquiring or finding breast cancer in their bodies. At the same time, women question the role of a supernatural power such as God to understand the reasons for getting cancer. Women also speculated regarding how much responsibility they would assume for adjusting to breast cancer if they were to develop this illness. More specifically, women expressed three main beliefs related to the responsibility for getting breast cancer: 1) "just world" beliefs, 2) self-denial of illness, and 3) acceptance of illness.
Just world belief. Women expressed a macroscopic belief that in the world there should be justice. That is, people should obtain from life what they deserve based on the type of actions they have done as human beings. The just world belief can be said to be based on the eye for an eye principle, people who do good deeds obtain good rewards and people who do bad/evil deeds are punished. In essence, women indicated that they and other women they knew were not responsible for getting breast cancer because they were all good human beings (e.g., caring mothers, religious women) who had not done any bad deeds to deserve being punished with breast cancer. Basically, women believe that good women ought not to get, suffer, and/or die from breast cancer. For example:

I was gonna comment on a cousin of mine that died. She was not old at all, you know. She got really depressed and wanted to know why her...and she always wondered why, why her? What did she do to deserve this? (group 2, 381)

I was angry when my friend passed away [died of breast cancer] because she was a beautiful lady and she had two darling little girls. I saw her there at the end and the pain she went through. I couldn’t understand why would she go through such pain when she was such a good person. I was angry about how she was suffering there at the end. (group 3, 294). You quoted me because she was a very religious, wonderful person. I couldn’t understand why her. (group 3, 398)

I am in limbo. I don’t know. My doctor said that mine could develop into that [breast cancer], that’s why I go every six months. Sooner I may hear, so like you, I am scared. I am not afraid of dying. I feel like I done my good deed in this earth. My son is grown and everything. (group 3, 305)
Self-denial of illness. Women in this study indicated that some people of Mexican descent refuse to believe that they could have an illness. Women expressed that they would rather not know that they have breast cancer than to know that they have it. Their refusal to believe they could have breast cancer seems to be linked to very strong pessimistic emotions (e.g., fear of finding breast cancer, fear of loosing their breast).

Thus, in an attempt to deny breast cancer and to avoid responsibility for finding it, women do not engage in breast cancer screening procedures. Women expressed:

(Speaker 1) Yo digo que a veces es el temor ‘I don’t want to do it because I am scared I am gonna find something.’ Que yo a veces me estoy bañando y eso [temor] y ya no me quiero hacer el examen [BSE] porque digo ‘no, a lo mejor si voy a tener una bolita y no quiero saber si tengo o no.’ (Various Speakers) Si, yo no quiero saber nunca (all laughed). (Interviewer - porque no queremos saber, no me toco y no...les pasa asi a otras?) (Speaker 2) A mi me pasa asi, yo digo ‘prefiero no saber si estoy enferma porque talvez de saber que estoy enferma, me muero mas luego digo yo.’ [(Speaker 1) Sometimes I would say is the fear ‘I don’t want to do it because I am scared I am gonna find something.’ At times I am taking a shower and that (fear), then I don’t want to do the exam (BSE) because I say ‘no, if I do it maybe I will have a lump and I don’t want to know if I have it or not.’ (Various Speakers) Yes, I never want to know (all laughed). (Interviewer - because I don’t want to know I won’t touch and no...does the same thing happen to other women?) (Speaker 2) That happens to me, I say ‘I prefer not to know if I am ill because maybe by knowing I am ill, I will die sooner.’] (group 1, 479)
(Speaker 1) And too, I was gonna say, a lot of times women, even when they may feel a lump, they won’t go, uh, it’s a fear. Because once if you don’t have somebody, if you have to go and they tell you yes, there is a possibility that you might have cancer, then it’s pretty final that you got it. But if you, if you don’t go see a person about it, then there is always the ‘not knowing.’ So I think is the finality of not being told. (Speaker 2) The fear. (Speaker 1) ‘This is something that needs to be looked at because your mammogram is abnormal or whatever.’ (Speaker 3) Ignorance is bliss. (Speaker 1) Uh, that’s right, not knowing is better. (group 2, 1576)

That, plus they [women of Mexican descent] don’t want to know because ‘I am looking for trouble....no, if I start going to the doctor like you do, that’s looking for trouble. I feel fine, I feel healthy, and as long as I feel this way I don’t have to go and find if something way in there that is wrong and it hasn’t come to the surface!’ (group 3, 645)

Acceptance of Illness. Women in this study appear to believe that acceptance of one’s illness is a desirable characteristic in a person of Mexican descent. Although women expressed that denial prevails among people of Mexican descent. Acceptance of illness means that people who develop an illness such as cancer should not disown it but accept it as part of who they are at that time in their lives. Acceptance seems to be a form of taking responsibility for one’s illness rather than failing to take responsibility by denying it. Women of Mexican descent who seem to accept better the diagnosis of breast cancer are those that accept the belief regarding predestination as a cause of cancer,
especially that cancer is "God's will" (see predestination beliefs in pages 88 and 89). The collective voices of women explained:

(Interviewer - think what your grandmother would say [about dying from breast cancer]) (Speaker 1) 'Ni modo' [that's it - cultural saying that indicates acceptance]. (Speaker 2) It's in God's hands. (Speaker 3) It's in God's hands. (Speaker 2) That's why I think that prayer is very prevalent. (Interviewer - they pray saying, 'I will pray so it will go away?') (Speaker 1) But if it doesn't [go away], 'que sea por Dios' [may it be for God]. That's what God wants. (Speaker 3) 'Que sea por Dios' [may it be for God]. (group 2, 908)

(Speaker 1) Because there was so much enjoyment for both of them [sexual enjoyment between husband and wife]. That is the price [breast cancer] they have to pay. That is what she said. Era Mejicana y acepto y el esposo acepto tambien porque es el precio [She was Mexican and she accepted it (breast cancer) and the husband accepted it too because that is the price]. (Speaker 2) That's a belief about breast cancer and a lot of people have those beliefs. Even if they are right or wrong, that's what they believe. That is the reason that it happened. (Speaker 3) Yeah, some believe that. (group 3, 1123)

Those women who do not accept their illness (i.e., self-denial) and/or its consequences (e.g., death) are thought to be adjusting poorly, especially if they do not accept "God's will."

(Speaker 1) Yeah. That's God's will. That seem to be their thinking. Not necessarily my mother's, but my grandmother's...I think they just accept it. To me
they just, you know. (Speaker 2) Not like Dale with mom. But she didn’t have cancer of the breast, she died [of] stomach cancer. And I know they were in denial. She couldn’t accept the diagnosis...much of a denial until she really got sick. When she got real sick, she accepted it. But it was like, she was in shock. I mean, they were determined that the doctor was wrong. (group 2, 411)

I have my executive director who doesn’t go to church or anything. When she found she had it, I would say ‘Kathy, I will pray for you.’ They were all happy-go-lucky and all that so when she found she had cancer it was like ‘what am I gonna do?’ And I thought ‘if she only had faith and all that maybe she would have been able to accept it a little bit better.’ It was like all her world fell apart. (group 3, 367)

Dios es el que dispone todo...las enfermedades que a uno le pasen (Interviewer - porque piensan ustedes que nos molestamos [cuando a una buena persona le ha dado cancer del seno]?) ...pos por ignorantes...ignorantes de eso [Dios dispone las enfermedades] ...de que si saben que la persona tiene cancer, bueno pues ya esta, deben de verlo como antes. Que se puede hacer? Aceptar. No se puede hacer ya nada. [God is the One that decides everything...the illnesses that may happen to you. (Interviewer - why do you think that it bothers us [that a good person gets breast cancer]?)...well because we are ignorant...ignorant of that (God decides over illnesses)...if people know that a person has cancer, well that’s how it is, they should see the person as before. What could be done? Accept. Nothing can be done.] (group 5, 573)
Propriety of Female Behavior

Women in this study expressed cultural beliefs regarding the propriety of female behavior among women of Mexican descent. Beliefs about propriety of female behavior seem to impact women's breast cancer screening behaviors in three ways. First, these beliefs may prevent women from engaging in breast cancer screening because they fear that the diagnosis of breast cancer will lead them to have their breast removed, which means they will lose their female identity. Thus, screening behavior is judged to be inappropriate. Second, beliefs about propriety of behavior may prevent women from touching their breast to do BSE or from going to health professionals for CBE and/or mammography, because these behaviors are believed to be against beliefs about female decency. Third, cultural beliefs regarding the propriety of female behavior may encourage women to go to female health care professionals to obtain a CBE and/or a mammogram. That is, for women of Mexican descent it is more culturally appropriate to have another female touch and see another female body. Thus, the beliefs in female identity, female decency, and female commonality are three cultural beliefs that impact the breast cancer screening behaviors of women of Mexican descent.

Female Identity: Women of Mexican descent believe that female physical traits (e.g., breast) are necessary conditions by which they define their own feminine identity and sexuality. The idea of having breast cancer triggers them to think about the possibility of losing their breast if the cancer is treated through surgery. Thus, women fear losing their breast because that would threaten their femininity. They also anticipate that other people will no longer consider them feminine if they are missing their breasts.
Women are especially concerned about the impact that losing their breast or femininity would have in their relationship with their partner or husband. They expect consequences such as losing their partner’s love and gaining their partner’s rejection. Women of Mexican descent who define their femininity by their physical traits may believe that breast cancer screening behaviors are not proper behaviors for them as females because of the consequences of these behaviors. Women explained:

Yo digo una de las cosas es no tener miedo, porque muchas veces cuando le dicen a la persona ‘tiene cancer,’ ‘hay no que me van a cortar mi pecho.’ Pues tenemos que, después que lo pronostican, ver que es lo que pueden hacer por nosotros [I would say that one thing is not to fear, because many times when the person is told ‘you have cancer.’ ‘Oh no, they will cut my breast.’ We have to see, after it has been diagnosed, what they can do for us.] (group 1, 334)

(Interviewer - so, they [women of Mexican descent] are too embarrassed, if they get breast cancer?) (Speaker 1) I think it is embarrassing, it’s not the breast cancer, it’s that losing part of their body. (Speaker 2) Their sexuality. (Speaker 1) Their sexuality.... because I would be embarrassed and I would be, and I’m very conscious of my body, and any time ‘cause I have lumps in my breast, the very first thing that comes to my mind is... (Speaker 3) I have it. (Speaker 1) No. But is the fear not only of your life, but also what is losing part of your body, what you do? (Speaker 2) And what your body will look like? (group 2, 474)
(Speaker 1) Maybe some people are back there that a woman should not have to be without a breast. A lot of people would think of a woman that she is not complete if a breast is removed... yeah! there would be a lot of husbands say that. (Speaker 2) Especially the ladies from Mexico because the husbands would not love them any more because they are missing a breast. Here with the Hispanic ladies that might not happen but I think that there because the men are so ‘machos allí en Mexico,’ [the men are so ‘machos’ in Mexico]. That might prevent them from being a woman. (Speaker 3) It could be. That seems to be a point. Maybe they are afraid that if they do have it [cancer] and they have to have the surgery [breast surgery] then their husbands will not love them. So they rather not know. (group 3, 1037)

Sería una noticia [diagnosis de cancer] que te llenaría de tristeza. Simplemente no estas tan preparada como para recibir una noticia de esas y muchas gentes se sienten mutiladas de su cuerpo. Yo conozco una persona que es una señora ya grande. Le quitaron primero uno [seno] y ahorita le van a quitar el otro. Para ella es fatal. [It would be news (breast cancer diagnosis) that would make you sad. You are simply not prepared to receive that kind of news and a lot of people feel mutilated from their body. I know a person that is an older lady. She got one (breast) removed first and now they will cut the other. To her, that is fatal.] (group 4, 386)

Pos lo rechazan a uno [por su pareja por no tener senos]. Porque ya no a estar uno completa. No que va a estar hueco. Pero no completa, ya no va a
functionar unocomo mujer. Todo el cuerpo de uno es parte del matrimonio. [Well, you are rejected (by your partner for not having your breast). Because you are not complete. That you will be empty. You are not complete, you don’t function as a woman any more. All your body belongs to the marriage.] (group 5, 540)

Female decency. Women of Mexican descent believe that females should conform to prevailing cultural standards of propriety regarding their body. More specifically, women believe that it is indecent for a female to touch or to see her own body, as well as to show or allow others to touch her body. If women touch and/or see their own breast they tend to feel embarrassed and/or to think that there is something wrong with doing so. Women also feel embarrassed and/or think it is wrong to allow others such as health professionals to touch and/or see their bodies. Feelings of embarrassment and thoughts of doing wrong seem to be aggravated if the health professional is a male. Women in this study explained:

(Speaker 1) I was also gonna say too, that I think the traditional Hispanic young woman is brought up to be modest about her body because I know when I came up to school here to the university, it was very hard to get used to going to P. E. classes with everybody, which strip naked in front of everybody. And the Mejicanas would be in the corner, you know, covering themselves, and so, I think that had to do with their body. You were just brought up not to show your body to anybody. (Interviewer - but does getting breast cancer mean that I have to expose my body and that I may feel uncomfortable? So Mejicanas may feel uncomfortable exposing their bodies?) (Speaker 1) Exposing your body period.
Yeah. (Speaker 2) I had a person that worked for me who was very young, she had been a teen parent, and have her last child at age 25. Two years later, lo and behold, she developed breast cancer and part of her reluctance to be diagnosed was that even though she had all those children, and had been through all those doctors, she was still young enough to experience what [Speaker 1] is talking about here. Just having anybody look at her body and feel her body, so she let it go a little bit too long and it was...it was very tragic. (Interviewer - she died?) (Speaker 2) Oh, yeah. (Interviewer - So she waited too long to go see the doctor outweighed by embarrassment?) (Speaker 2) By reluctance. (Speaker 3) My mom is 82, 82 I think. And uh, I know that for a while there she had a problem with going to the doctor because she was embarrassed. (group 2, 583)

Embarrassment to go to the doctor. I think that would be a cultural health, uh, reason for keeping women from going to the doctor. They are embarrassed to go to a doctor, specially if it's a male doctor. They don't want the doctor to see their body, to touch their body, to feel their body (group 2, 1173). (Speaker 1) Is a culture thing. It really is. (Various speakers) Aha! (Speaker 1) You just don't do that. (Speaker 2) They just thought it was indecent. (Speaker 1) You don't talk about it. You grew up with not...(Speaker 2) masturbating. (Speaker 1) Yeah, You didn't. You just grow up with that from your mother and your grandmother. So my gosh, you start touching yourself! (Interviewer - how would touching yourself you feel?) (Speaker 1) Well, you had to realize that it was something that you had
to do and that there was nothing shameful, or wrong about it, that it has to
be done. (Speaker 3) That brought something to mind when I started high-school
they would tell us to go take a shower and us Hispanic girls were so modest, a
‘no-no,’ that was so embarrassing. We would have to put a towel or something.
(Speaker 1) The other girls would just strip and us Hispanic girls would be
embarrassed! (Various speakers) Aha, I remember. (Speaker 1) When we go to
gym we would have to take all our clothes and put this...but they would undress
and care nothing. But we would! It was to us embarrassing. (Interviewer - how
would it be now?) (Speaker 1) To me is still the same I don’t undress, nah, nah.
(Speaker 4) I am the same way. (Speaker 3) When I go to SPAS, I put a towel or
something (all laughed). (Speaker 1) That is how we grew up, and in our mind set,
and that’s the way it is, even now, I would not take my health strong! (Speaker 2)
If not, you are embarrassed and your face starts turning red, purple, green, and all
colors! and the bolillas todas allí [the fat around the waist]. (Speaker 1) That is
why we all go to women doctors. (group 3, 529)

(Interviewer - que otras cosas nos pueden evitar o motivar a irnos a tomar
un mamograma?) (Speaker 1) Pues es todo, la verguenza que no te vayan a ver allí
desnuda. Buena esa es mi opinion. Yo pienso que es el punto principal. (Speaker
2) Si! (Interviewer - no importa que sea hombre o mujer?) (Various speakers) No
importa. Nos da igual. (Speaker 3) Pos yo aceptaria un poco mas la mujer que me
examinara. (Speaker 4) Tambien yo tendría mas confianza con una mujer. Me
sentiría mejor. [(Interviewer - what other things could prevent us or motivate us to
go obtain a mammogram?)  (Speaker 1) Well, that’s all, the embarrassment that somebody would see you there naked. Well, that is my opinion. I think that’s the main issue. (Speaker 2) Yes! (Interviewer - it doesn’t matter that it is a man or a woman?) (Various speakers) It doesn’t matter. It’s the same to us...  (Speaker 3) Well, I would accept a little better that a woman would examine me. (Speaker 4) I would also trust a woman more. I would feel better.] (group 4, 730)

(Interviewer - El examen clinico del seno es...que piensan ustedes que pueden ser las razones porque a veces nos da pena que nos vean nuestras parte intimas?)

(Speaker) Verguenza ...porque uno no esta impuesto. (Interviewer - explicame mas. Que quiere decir con eso?) (Speaker) Pues, el primer pap smear que tuve pues a mi me daba mucha verguenza. Iba yo que me chequeaba cuando estaba gorda, tenia mucha verguenza. Me sentia mal. Que ni queria ir al doctor.

[(Interviewer - CBE is...what are some of the reasons you think we don’t like to have somebody look at our intimate parts?) (Speaker) Embarrassment...because we are not used to it. (Interviewer - tell me more. What do you mean by that?) (Speaker) Well, when I got the first pap smear I was very embarrassed. I went to get checked when I was pregnant. I was very embarrassed. I felt bad. I didn’t want to go to the doctor.] (group 5, 852)

(Interviewer - ...porque la diabetes uno se la puede controlar. El cancer no se puede controlar?) (Speaker) Peor si uno se deja mucho, no va al doctor, cuando vaya, como yo cuando fui con la diabetes, ya iba yo bien mal. Cuando va uno, el cancer ya lo tiene muy arriba. (Interviewer - y eso nos pasa mas a las mejicanas?
Porque nos da miedo?) (Speaker) Uhum. Porque nos da miedo. Y no quiere uno ir al doctor. Con tal que no, que no nos toque el doctor. Verguenza! [(Interviewer because one can control diabetes. Cancer can’t be controlled?) (Speaker) It’s worst if one is delayed, one doesn’t go to the doctor, when one goes, like when I went with diabetes, I went very sick. When one goes, cancer is too advanced. (Interviewer - and that happens only to Mejicanas? Why are we afraid?) (Speaker) Uhum. Because we are afraid. One does not want to go to the doctor. So that the doctor will not touch us. Embarrassment!] (group 5, 513)

Female commonality. Women of Mexican descent feel a special bond with other women because they believe that females have various things in common. Women in this study expressed this feeling towards female health care providers because they perceive that these females share the same common experiences and the same type of body. Women also indicated that female health care providers are able to provide better support and understanding, as well as to inspire in them more trust than male health care providers. Women explained:

I, uh, as a Mejicana feel since I've had the experience of going to a man gynecologist and a woman gynecologist, I feel much more comfortable with a woman gynecologist. Much more. Not just because she's a woman but also because I think she experiences the same things that I experience. Whereas a man, they don't. And I think a woman gynecologist can deal with another woman a little bit easier. They seem to explain things a little better because they know exactly what they are talking about. (group 2, 1423)
(Interviewer - what about going to the doctor? Remember you were saying we Mejicanas go to a female doctor?) (Speaker 1) I feel the breast exam and the pelvic, the pap smear, I still have the nurse right there with me holding my hand. I am still like that but I know better. (Interviewer - where do you think that comes from?) (Speaker 1) Well...having somebody to talk to. (Speaker 2) I think is culture! Is the way we were brought up. We were still.... (Speaker 3) Yeah, I think that's a cultural thing there. (Speaker 4) Is the same.... (Speaker 5) I think is culture just like I said before when the Mejicanas go see the doctor 'como que tienen verguenza' [they are embarrassed] to disrobe themselves. You know, 'se ponen su... [they wear their] little gown.' A lot of Mejicanas here [United States] they don't care. Especially las Americanas [the Anglo Americans]. (Speaker 2) But I think it is still the cultural thing where the Hispanics 'somos mas vergonzosas' [we are more embarrassed]. I think it still applies to NOW, this time, not just to the old fashioned women but now. My daughter will prefer to go to a female doctor than to a man doctor. So I still think that still goes on, that's why I think it is a cultural thing. And she is a lot younger. (Interviewer - so why a female?) (Speaker 3) Because you are embarrassed for a man to see you and that's how most Hispanic women are. (Speaker 4) And you feel more comfortable with a female doctor doing a pap smear. (Interviewer - how is it that you feel more comfortable with a female doctor?) (Speaker 3) Because women have the same thing that you have! (all laughed). (Other) And if she is gonna see you, your boobs and everything else, you know she's got the same thing! (all laughed). (Speaker 4)
I feel that they are more understanding. I don't know I just feel more comfortable.

(group 3, 846)

(Interviewer - entonces preferimos ir con una mujer, que pasa, porque?)

(Speaker) Yo pienso que como una mujer tiene igual. Es como yo. (Interviewer - tiene igual que?) El cuerpo. Tiene lo mismo que yo. Me daría menos vergüenza con ella. [(Interviewer - we then prefer to go to a female, what's going on, why?)

(Speaker) I think that since a woman has the same. She is like me. (Interviewer - has the same what?) The body. She has the same thing as me. I would feel less embarrassed with her.) (group 4, 762)

(Interviewer - como sería si el doctor fuera una mujer en vez de hombre?)

(Speaker) Una mujer es como uno. No le da tanta vergüenza que como con un hombre. Yo tuve una doctora y era muy diferente al doctor. No hay nada para temer. (Interviewer - y como era ella...) (Speaker) Ella este, este, si sintieron mejor con ellas, las muchachas, porque uno se siente mejor que una doctora las está tocando que un hombre. Yo me sentí mejor cuando la doctora me examinó.

[(Interviewer - how would it be if the doctor was a female instead of a male?)

(Speaker) A woman is like oneself. One doesn't feel too embarrassed as with a man. I had a female doctor and it was very different from the [male] doctor. There is less to fear. (Interviewer - how was she?) (Speaker) With her, the women felt better with her, because one feels better that a female doctor touches one rather than a male. I felt better when the female doctor examined me (CBE).]

(group 5, 935)
Propriety of Health Professional Behavior

Women in this study expressed cultural beliefs regarding the propriety of health professional/health care provider behavior according to the perspective of women of Mexican descent. Among the cultural beliefs that prevent women from going to health professionals for CBE and/or mammography, is the belief that certain behaviors from health professionals make them untrustworthy, especially if the professional is a male. On the other hand, there is also a belief that health professionals who display certain behaviors towards women of Mexican descent are to be trusted. This trust is also known as confianza among people of Mexican descent. Confianza in health professionals seems to encourage women to engage in CBE and/or a mammography behaviors, especially if the professional is a female.

Distrust. Women of Mexican descent believe that health professionals need to avoid displaying certain behaviors that make these women distrust them. Furthermore, this distrust seems to be used by women as a strong justification to avoid engaging in health behaviors that women acknowledge are necessary to maintain their health. Women in this study indicated mostly that health professionals who are perceived as dishonest, naughty, incompetent, and disrespectful are to be distrusted. Women explained:

(Speaker 1) I have an interesting story too about my grandmother. She's 99 years old. She had been having an incontinence problem and so she, we had been trying to convince her to go to the doctor, and she wouldn't go, she wouldn't go, and my mother couldn't get her to go. Well, I finally talked to my mother and
said 'why won't she go?' And she said 'well, it has to do with something that happened last year....' My grandmother was 98 at that time, had never had a pap smear in her life...well, when he proceeded to do the pap-smear she was mortified. I mean, she just! and she didn't speak to my mother all the way home because she felt like she had been violated...so then when I found out why she had these feelings about going to the doctor again, I tried to help her, and then I tried to say 'okay, he needed to do that because he needed to find out if you had an infection. He was trying to prescribe something for you.' And she said 'que no creo, que es mañoso' [I don't believe it, he is naughty].... and so then I said, okay, what if I take you to a woman doctor? And her first response was 'las mujeres no hacen eso, solo los hombres, las mujeres que son doctores non van ha hacer esta cosa' [Female doctors don't do this, only the male doctors would do something like that] And in her mind it was like, you know, a male doctor shouldn't have to do that...(Speaker 2) It [cultural belief] is very important. (group 2, 636)

(Interviewer - what if 'es mañoso'? [what if he is naughty?] Is that particular of our culture?) (Speaker 1) Well, if he is not 'mañoso,' but you still hear this... (all laughed) (Speaker 2) I think the hang up with a man doctor being 'mañoso' is more of a Hispanic thing. I don't think that that's a general [other cultures] thing. (group 2, 1404)

(Interviewer - que nos han enseñado?) Pues eso de no ir con un doctor. A veces los doctores son aprovechados es lo que entonces uno tiene que cuidarse. (Interviewer - que es lo que nos han dicho?) Que a veces los doctores procuran
manosear sin necesidad. Y yo me acuerdo que de chiquilla, de unos trece o catorce
años, que yo fui con un doctor. Y no me acompañio mi mama. El doctor estubo
agarrandome hasta ya no mas. Con el tiempo vine a descubrir que lo que estaba
haciendo el doctor era muy malo. Pero como esas cosas, como le digo, no puede
uno decirselas a su mama porque le va a uno peor! Entonces yo me lo caye

[(Interviewer - what have we been taught?) Well, that about not going to the
doctor. Sometimes the doctors take advantage of you so you have to take care of
yourself. (Interviewer - what have we been told?) That sometimes the doctors try
to touch you without any need to do so. And I remember that when I was little,
about thirteen or fourteen years old, I went to a doctor. And my mother didn’t go
with me. The doctor kept touching me a lot. With time, I came to discover that
what the doctor was doing was wrong. But since those things, like I told you, we
cannot discuss them with our mothers because things would get worst! Therefore,
I didn’t say anything.] (group 4, 745)

(Interviewer - why do you think that we Mejicanas do not feel comfortable
[going to the doctor]? The embarrassment...?) (Speaker 1) The embarrassment. A
mi hace como 2 años que me hicieron un papanicolau aqui y aqui. Y luego la
ponen a uno allí y le hablan a otro doctor para que venga a ver tambien. (Speaker
2) Cuando estan training. Specially if it’s a young one. Un doctor joven.
(Speaker 1) Especialmente si es un doctor joven. (Interviewer - porque con un
doctor joven?) (Speaker 2) Aqui en esta clinica, no hay muchos doctores, son
praticantes, y como quiera no tiene experiencia... (Speaker 1) El doctor...vino a
ver tambien, y los muchachos y las muchachas! (Interviewer - porque no nos gusta ir al doctor entonces? Cual es el riesgo?) (Speaker 1) No es un riesgo. Nada mas que la verguenza. [(Speaker 1) About 2 years ago I had a pap smear done here. They (doctors) put you there and then they talk to another doctor to also come and look at you (vagina). (Speaker 2) When they are in training. Especially if it’s a young doctor. (Speaker 1) Especially if it’s a young doctor. (Interviewer - why with a young doctor?) (Speaker 1) Here in this clinic, there are not very many doctors, most of them are interns, and no matter what they don’t have much experience.... (Speaker 1) Doctor... came to see me too, and all the young men and women! (Interviewer - ...so why don’t we like to go to the doctors? what’s the risk? (Speaker 1) Is not a risk. It’s the embarrassment.]

Confianza (Trust). “Confianza” among women of Mexican descent means a deep feeling of trust in one’s health care provider or professional. “Confianza” also implies a feeling of reassurance and familiarity with the professional. Women of Mexican descent in this study believe that health professionals need to display certain behaviors that make women have “confianza” in them. Women perceive health professionals’ behavior as appropriate when, under cultural standards, the professionals show to be caring, trusting, and competent. Women who perceive these behaviors in their health care providers, especially physicians, seem to be more motivated to visit them and to attend to their recommendations. Confianza appears to be a stronger motivator for women to engage in breast cancer screening behaviors than even “female commonality.” That is, it matters
less to have a female doctor than to have a doctor whom one trusts deeply, even if it is a male doctor. Women expressed:

(Speaker) Bueno, pues yo, el doctor...pues lo conocemos por muchos años y el si es buenísimo, en todas las formas porque toda la gente que yo se que lo visita, los que visitan a él las alivia aunque ya estan así con cancer... (Interviewer – es que usted le tiene confianza?) (Speaker) Si! Las alivia... yo tengo mucho, mucho gusto que lo tengo y que atiene a mucha gente y que yo se que se van con enfermedades y que si las alivia. Y nosotros... (Interviewer - Entonces es que la confianza en un doctor es algo que las motivaría a ir hacer un examen?) (Speaker) Yo si voy. Mi hija a veces me dice ‘vamos a, voy a hacer mi papanicolau y vas comigo, te voy a hacer también para que vayas.’ Y yo si voy y ella me lleva y vamos. (Interviewer - usted tiene confianza en su doctor) (Speaker) Si. Yo si... (Interviewer – usted piensa que es importante para las Mejicanas tenerle confianza a su doctor? Para que no sea un mañoso?) (Speaker) Si. Si. [(Speaker) Well, me, the doctor...because we’ve known him for many years, and he is excellent, in every way because everyone that goes to him, I know he helps everyone that goes to him, even the ones that already have cancer...(Interviewer - is it that you have confianza, that you trust him?) Yes. He helps them... I am very, very glad to be able to see him. There are people, because he has a lot of people, and they go with illnesses and he does heal them. And we... (Interviewer - then, trust in a doctor is something that would motivate you to go get an exam?) (Speaker) I go. My daughter sometimes tells me, ‘let’s go, I’ll go get my pap smear and I’ll make
you (an appointment) and you go too.' And I go, she takes me, and we go
(Interviewer - you trust your doctor?) Yes. I do...(Interviewer – do you think that
it's important for Mejicanas to trust their doctor? So they don't end up with a
naughty one?) (Speaker) Yes, yes. (group 2, 1340)

(Speaker) My husband didn't want me to go see a male doctor when I
finally became pregnant and I didn't know any female doctors so I was gonna go
with my sister's doctor. You feel better if somebody tells you oh, this man is so
gentle. You are looking for somebody not to hurt you. So I went to him [husband]
and I said ‘I am sorry you wanted me to go to a female doctor but I don't know any
female doctors.’ In my time, this is back in '54, so there wasn't many female
doctors back then. So I said, ‘I am sorry but he [doctor] is very nice. So what I did
I took him [husband] with me next time and that made a world of difference and
he also said ‘I am glad he [doctor] is the only one that sees you beside me. So
don't you go be changing doctors! (group 3, 939)

(Speaker 1) Yo pienso de que no le hace que sea hombre o mujer, no mas
que me diga la verdad. Y que tenga un titulo. A mi me han atendido los dos y yo
no siento ninguna... (Interviewer - y usted?) (Speaker 2) Tambien. Cualquiera.
[(Speaker 1) I think that it doesn't matter a male or a female, as long as they tell
you the truth. And that they have a degree. I have been seen by both (male and
female) and I don't feel any... (Interviewer - and you?) (Speaker 2) Me too. Either
or. ] (group 5, 948)
Theoretical Analysis: Grounding the Theory

Core Category

The goal of grounded theory is to generate a theory that accounts for a pattern of behavior which is relevant and problematic for those involved. The generation of theory occurs around a core category (Strauss, 1987, p. 34). The core category is the 'main theme,' for what appears to be the main concern of or problem for the people of interest. The core category sums up in a pattern of behavior the essence of what is going on in the data. In other words, it is the central phenomenon around which all the other categories or theoretical themes are integrated by means of the paradigm model (Strauss & Corbin, 1990). This is analogous to a summary that provides an overview of a main idea followed by the important categories that have emerged. The core category, or theory, must be well integrated, easy to understand, relevant to the empirical world, and must explain the major variation in the process or phenomenon studied (Stern & Pyles, 1985, p. 15).

In this study, the core category is the phenomena that answers the main research question: How do cultural health beliefs about breast cancer and breast cancer screening techniques influence the breast cancer screening behaviors of women of Mexican descent? “Feeling healthy” is the core category or main theme that best explains how cultural health beliefs influence breast cancer screening behaviors of women of Mexican descent. Cultural health beliefs impact how women interpret “feeling healthy,” which in turn affects their assessment of the possibility that they might have or could develop breast cancer and their decision to engage in breast cancer screening behaviors.
Among women of Mexican descent, "feeling healthy" involves subjective feelings of well-being and a cognitive perception that they are not vulnerable to develop breast cancer. Women judge their vulnerability by the presence or absence of any indicators (e.g., causes, symptoms) that point to the possibility of having or developing breast cancer. Women's subjective feelings and cognitive perceptions of vulnerability are influenced by their cultural health beliefs regarding breast cancer. In essence, women who feel healthy, and do not perceive indicators that suggest otherwise, are more likely to fail to engage in breast cancer screening. Women are more likely to screen if they do not feel healthy and are cognitively aware of their susceptibility to develop breast cancer.

"Feeling indecent" is another theme or category, secondary but related to "feeling healthy," that was found to impact the breast cancer screening behaviors of women of Mexican descent. It was found that cultural beliefs about propriety of behavior also have a strong impact on breast cancer screening behaviors. "Feeling indecent" involves a cognitive perception that women's behavior is inappropriate when they engage in breast cancer screening and a subjective experience of abashing emotions (e.g., embarrassment) when they do so. Women judge the propriety of their behavior based on cultural beliefs regarding standards for appropriate female behavior (i.e., female decency) and health care provider behavior. In essence, women who perceive breast cancer screening behavior to be indecent are likely to feel embarrassed and avoid engaging in breast cancer screening. Women are more likely to screen if they believe braking cultural standards of behavior is appropriate for the sake of "feeling healthy," and are able to tolerate experiencing abashing emotions when they engage in breast cancer screening.
Laying Out the Theory

"Feeling healthy" coupled with "feeling indecent" are the themes or categories that best explain how cultural health beliefs about cancer and cultural beliefs about screening behaviors influence the breast cancer screening behaviors among women of Mexican descent. In this study, the theory around these two categories will be explained or layed out through the use of the paradigm model. That is, an explanation will be provided regarding how the interaction between causal conditions, intervening variables, action strategies, and perceived consequences impact breast cancer screening behaviors. This interaction will be further illustrated using the participant’s own voices. However, the quotes have been extracted from the interviews and rearranged in ways that best illustrate the paradigm. To ease the reading flow, the quotes that were originally in Spanish have been translated to English.

The role of health beliefs about the causes of breast cancer. Women of Mexican descent believe that breast cancer can be caused by detrimental sources, breastfeeding, physical determination, and/or divine predestination. Women in this study think that exposure to detrimental sources jeopardizes their good health and puts them at risk of developing breast cancer. To maintain their health or their sense of "feeling healthy" and to avoid the development of breast cancer, women are likely to engage in certain preventive and detection strategies. For example, among the preventive strategies that women take are oral measures such as eliminating coffee and nicotine and/or physical measures such as avoiding physical trauma to the breast ('un golpe'). Women who fail to take some preventive measures and cognitively perceive that they are vulnerable to
develop breast cancer, are more likely to consider taking breast cancer screening
detection strategies such as breast self-exam and mammography. Women also consider
going to the doctor for a 'check up,' referring to the clinical breast exam.

The above theoretical formulation about how beliefs in detrimental sources impact
breast cancer screening can be illustrated by the following paradigm statements:

I hurt myself (causal condition), I bumped myself (intervening variable -
belief in detrimental sources, un golpe) when I was a little girl,...so I told my mom
(context) and....she put some hot pads...but after like a week or two still hurt so
then my mom says ‘we better go to the doctor’ (action strategies - physical
measures and engage in breast cancer screening). And it was nothing...it was a
cyst that had formed and it was not cancerous (consequence) but at that time it
was the story about breast cancer (group 2).

I heard (causal condition)...that if you drink a lot of coffee (intervening
variable - belief in detrimental sources) you get all this little tumors in your breast
and they can develop into malignant tumors (phenomenon - cancer
development)...that’s why I have cut down on my coffee; ...that is why I have to
have a mammogram every year;...I examine myself [BSE] even more often (action
strategies - eliminate detrimental sources and engage in breast cancer screening)...[to prevent and detect breast cancer] (consequence - maintain health) (group 3).

Breastfeeding is believed to be both a cause and a preventive measure of breast
cancer. This interesting paradox refers mostly to whether the milk is extracted or not from
the breast, since stagnated milk is believed to cause breast cancer. To the extent to which
women of Mexican descent have breastfed their babies and how correctly they think they have done so, they will assess whether they are healthy or whether they are likely to develop breast cancer. Women believe that if they breastfed their babies they have prevented developing breast cancer in the future because the baby got out of the woman's body the milk that could otherwise become cancerous. Thus, women who have taken this preventive measure are less likely to engage in breast cancer screening. Women who breastfed may also think that they can develop breast cancer if they did not take certain measures to breastfeed correctly. Among the early preventive measures that some women take are positioning the baby correctly during breastfeeding or draining the milk out of the breast if the baby burped into the breast. If women perceive that they have taken these preventive measures, they are less likely to engage in breast cancer screening. This theoretical formulation on beliefs about breastfeeding as a causal and preventive breast cancer agent can be illustrated by the following paradigm statement (see also examples of breastfeeding beliefs under theoretical themes section, page 83):

(Speaker 1) People say (causal condition) that when you breastfeed and the baby burps your breast (intervening variable - belief in breastfeeding as a cause of breast cancer) that cancer also comes from that because the air that the baby burps stays inside (phenomenon - cancer development)...but quickly, after 72 hours the doctor made an incision and the bad milk was drained (action strategy - preventive measure) and now look at me, 'I am happily alive' (consequence 1 - maintain health)... (Speaker 2) I didn't do that, the baby burped air, and my breast got swollen (consequence 2 - indicator of breast cancer development) (group 1).
Physical predetermination is the belief most often mentioned by women of Mexican descent regarding the causes of cancer. That is, women believe that if they have certain physical or biological 'markers' such as genetic make-up or predisposing internal body conditions, they are more likely to develop breast cancer. On the other hand, women who do not perceive any personal physical predetermination factors are less likely to feel susceptible to develop breast cancer. Not surprisingly, according to beliefs in accepting and/or denying one's illness, women in this study did not indicate that they take any preventive strategies to maintain their health if they perceive that they are physically predetermined for breast cancer. Instead, a few such women indicated taking some detection strategies to check the status of their health and perhaps to detect breast cancer development. The formulation of how physical predetermination beliefs impact breast cancer screening behaviors is illustrated by the following paradigm statements:

The reason (causal condition) I don’t go more often [to obtain a mammogram] (action strategy - fail to engage in detection strategies) is because it [breast cancer] (phenomenon) is not in my family (intervening condition - belief in physical predetermination) [...low rates of breast cancer screening] (consequence). If it was like ya’ll or some of you that has it in the family (intervening condition - belief in physical predetermination), then I probably would go more (action strategy - engage in detection strategies). But it’s not in my genes (group 2).

Heredity some times (intervening variable- belief in physical predetermination)... that’s what I heard (causal condition). If cancer
The phenomenon is in the maternal side of the family. For example, in my case my doctor watches me very closely because the cancer on my family has been on the maternal side...they really watch me because I started getting my mammogram pretty early (action strategy - breast cancer screening)...[check status of one’s health and detect breast cancer development] (consequence) (group 3).

Divine predestination is another belief that women of Mexican descent hold strongly to explain developing breast cancer. Even more than with beliefs of physical predetermination, women in this study indicated taking few prevention or detection strategies to avoid the development of breast cancer if they believe they have been predestined for this illness. Among the prevention strategies are those of religious nature in which women ask God to protect them from developing breast cancer. Women also appear to engage in religious strategies to cope with breast cancer diagnosis. Women believe that ‘faith in and prayer to God’ will help them to better “accept the illness.”

Theoretically, beliefs in divine predestination, at best, seem to serve as barriers to breast cancer screening. Since beliefs in divine predestination encourage thinking that an illness is beyond one’s control and that one should adjust to an inevitable illness, the likelihood that women with these beliefs will take responsibility to engage in breast cancer screening appears to be minimal. The following paradigm statement illustrates this theoretical formulation:

I think (causal condition)...that if I were to get breast cancer (phenomenon)...I wouldn’t be surprised because ‘when it is your turn, is your turn’ (intervening variable - belief in divine predestination), and you place
everything in the hands of God (action strategy - religious strategy) and accept (consequence - perceived adjustment to breast cancer diagnosis) (group 3).

I get afflicted when I hear about illnesses (causal condition). I ask God (intervening condition - belief in divine force; action strategy - preventive religious strategy) to help me and to protect me from all illnesses and to protect my health (consequence - prevent breast cancer development and maintain health) because I don’t have insurance (intervening condition - structural and financial barrier) to go to the doctors (action strategy - avoid engaging in screening and treatment behaviors?). I ask God for the healing of all my body (action strategy - preventive religious strategy; consequence - maintain health) (group 1).

For some women of Mexican descent the beliefs in divine predestination seem to encourage them to take certain religious and behavioral strategies to possibly avoid breast cancer death and restore “feeling healthy.” Among the religious strategies that women take are “faith in and prayer to God” for protection and healing from breast cancer, as illustrated by the following paradigm statements:

I think (causal condition) with the Mejicanas (context) a lot of times they think that once they get it [breast cancer] (phenomenon), if they pray hard enough and if they have enough people praying hard enough for them (action strategy - religious and behavioral strategies), it [breast cancer] may go away (consequence - healing and avoidance of cancer death)...but if it doesn’t, ‘que sea por Dios’ [It’s in God’s hands]. That’s what God wants (intervening condition - beliefs in divine predestination) (group 2).
You have to have a lot of faith in God and in yourself (intervening condition - beliefs in divine force and internal locus of control; action strategy - religious strategy). My sister-in-law, she had a lot of faith (causal condition) and I saw her survive this [breast cancer] (consequence - avoid death; phenomenon - breast cancer). I see her real happy and healthy now, energetic (consequence - restoration of health). So it’s not good to let yourself down. You have to be positive and believe there is a God (intervening condition - internal locus of control and belief in divine force) (group 3).

The role of health beliefs about the nature of breast cancer. Women of Mexican descent think about their health in relationship to breast cancer not only in terms of its causes but also in terms of beliefs about its nature as an illness. For the most part, women who believe that the nature of breast cancer is symptomatic tend to wait until they feel a breast cancer symptom (e.g., a lump, pain) in order to perform BSE and/or engage in CBE and mammography screening. Thus, women who are “feeling healthy,” that is, they perceive no symptoms, are more likely to fail to engage in breast cancer screening behaviors than those who do not feel healthy or perceive certain symptoms. The following paradigm statements serve as examples, presented to highlight the role of the belief that breast cancer is a symptomatic illness:

I feel fine (causal condition - “feeling healthy”), nothing hurts me (intervening condition - belief in symptomatic illness), thanks God, and that is why I say why should I go see the doctor to check me [CBE]? (action strategy and consequence - avoid engaging in breast cancer screening) (group 1).
More than for any other health belief, women recognize the strong influence that the belief that one must feel a symptom in order to be ill has on their breast cancer screening behaviors. The absence of symptoms also reinforces the subjective and cognitive perception that women are healthy because they “feel healthy:”

In Mexico it’s not like here (U. S.) (context). In Mexico they don’t make it a habit to go every year to the doctor (action strategy - do not engage in breast cancer screening every year). If you are not sick (intervening condition - symptomatic illness), you don’t go see a doctor (action strategy - do not engage in breast cancer screening). I don’t know why, if it is because they don’t have the money to pay for a doctor (intervening condition - financial limitations), or because they feel healthy! (intervening condition - “feeling healthy,” or no symptoms) (group 2).

In the other hand, the presence of symptoms that are perceived to be symptoms of breast cancer make women feel subjectively and cognitively vulnerable the possibility that they could have breast cancer. It is until they no longer feel healthy that some women consider engaging in breast cancer screening:

I go [obtain a mammogram] because I have to (action strategy - engage in breast cancer screening), because I have this cyst (intervening condition - symptomatic illness) and if I don’t go get it checked then it (phenomenon - breast cancer) can develop, you know (consequence - breast cancer development). But I would think that if I had a mammogram in a year (causal condition) and it didn’t show anything [cyst] (intervening condition - symptomatic illness), the next year,
me myself, and just thinking about how painful it was and all that, I may be
ingclined not to have another exam the next year, maybe. I think I would have it
every other year (consequence - delay breast cancer screening) (group 2).

You just have to wait (action strategy - avoid breast cancer screening),
sometimes you have something that you don’t even know about...but it doesn’t
hurt! (intervening condition - belief in symptomatic illness). One time when
taking a shower (causal condition) I touched it [breast] and I felt something
[lump] so then I began to do it [BSE] (action strategy - engage in breast cancer
screening), quickly I called the doctor and he told me ‘I want you to come
immediately to be examined [CBE]’ (consequence - further engagement in breast
cancer screening and/or diagnostic testing) (group 4).

The cultural health belief that breast cancer is by nature a fatal illness also
influences whether women of Mexican descent will engage or not in breast cancer
screening. This belief further impacts the anticipated consequences of developing breast
cancer, the most commonly expected is that of death. In turn, the anticipation of death
also threatens women’s desire to maintain their subjective feelings of well-being or
“feeling healthy.” Furthermore, the anticipation of an inevitable death may discourage
some women from engaging in detection strategies such as breast cancer screening
because of the potential of being diagnosed with such a fatal illness. If women develop
breast cancer, they are also likely to believe that engaging in strategies to heal or treat
breast cancer in order to restore “feeling healthy” is futile. The following paradigm
statements show the connection between the belief in fatal illness and the likelihood of avoiding breast cancer treatment strategies:

I think (causal condition) that at the end you cannot avoid it [breast cancer death] (intervening condition - belief in fatal illness)....because sometimes the person has surgery (action strategy - seek medical treatment) but it is said that it [breast cancer] (phenomenon) will return, no matter what, it returns....my friend had surgery and she never recovered (consequence - anticipated death from cancer in spite of treatment) (group 1).

If you (doctor) (causal condition) are going to operate and to subtract what I have and if it’s cancer (phenomenon), I do not want you to cut it [the breast] (action strategy - avoid surgical treatment strategy)...so no, I said ‘if I will die anyway and it will continue to advance (intervening condition - belief in fatal illness), what’s the point of having it cut.’ That is better, if my time has come...it was all I thought, that I was not going to live very long... (consequence - anticipated death from cancer) that is how I reacted. (group 4)

Another perceived consequence of having breast cancer besides death is that it will bring shame, dishonor, and disgrace to oneself and to one’s family. Women of Mexican descent who anticipate these consequences are likely to believe that cancer is a shameful illness by nature. These women are also likely to anticipate certain negative reactions from themselves and their family members if they were diagnosed with breast cancer. Women anticipate antagonistic reactions, including being blamed and/or rejected, for having a shameful illness such as breast cancer. Thus, in an attempt to avoid the
diagnosis of a shameful illness and the consequent negative reactions it would bring, some women appear to avoid breast cancer screening. The above theoretical proposition is supported by the following paradigm statement:

I know a family just like this (causal condition). Mejicanos, oh yeah, but they were born here [U. S.] (context). Then one lady will tell the other, 'oh, there is always something wrong with you [e.g., breast cancer] (phenomenon). You are always looking for trouble (consequence - blame). Stop looking (action strategy - discourage preventive behavioral strategy?). You should be ashamed of yourself (consequence - shame). Is almost like a pride thing, like 'I am going to be better than her and I better not go see the doctor' (action strategy - avoid preventive behavioral strategy?). Is almost like...belittling, demeaning, putting them down?.... Yeah, they do themselves.... it’s a DISHONOR if you are not good and healthy but ill, if you come out ill [e.g., breast cancer] then is like...You are no good, you are USELESS. And that DOES exist! (intervening variable - belief in breast cancer as a shameful illness). (group 3)

The role of beliefs about responsibility for getting breast cancer. The degree to which women engage in breast cancer screening is also determined by their beliefs regarding whose responsible for them getting breast cancer. Most women believe that they would not be responsible or would not deserve getting or dying from this bad illness because they are basically good people. This belief seems to stem from the macroscopic belief in a “just world” in which people get out of life what they deserve based on being a ‘good’ versus a ‘bad’ person. Women who end up getting breast cancer without feeling
responsible for it, tend to attribute the responsibility to a divine force such as “God’s will.” Regardless of whose responsible for them developing breast cancer, women of Mexican descent anticipate certain antagonistic, pessimistic and anxious reactions from themselves and their family members if they were to be diagnosed with breast cancer. Women believe they would feel mostly angry, rejected, fearful, and distressed, and would expect a similar reaction from their family if they were no longer healthy. Some women believe that negative reactions and questioning “God’s will” are indicative of psychological maladjustment because one is failing to “accept the illness.” The following paradigm statements support the above proposition:

I was gonna comment on a cousin of mine that died (causal condition). She was not old at all, you know. She got really depressed (phenomenon - pessimistic emotion) and wanted to know why her... and she always wondered why, why her? what did she do to deserve it? (intervening condition - “just world” belief; consequence - lack of acceptance of illness) (group 2).

If I got sick [breast cancer] (causal condition)...my sisters would be very upset (phenomenon - pessimistic emotion)... I think that family are very human... right away they analyze you (action strategy - rationalization) and say ‘my God, you were always in church... always trying to do good and look, this is the way He paid you’... would rather that somebody who is out there in the streets doing nothing, doing bad things, ‘now that’s the one who should be getting that cancer, not you!’ (intervening conditions - just world belief). They [family] would cry....
stump...be upset... because they don’t understand how He allows things
(consequence - psychological maladjustment) (group 3).

Some women of Mexican descent who also anticipated negative reactions if they
developed breast cancer indicated that they would engage in prevention, detection, and/or
treatment strategies. These women are more likely to be educated and believe that
screening and treatment techniques are efficacious. Consequently, women expect that
their pessimistic and anxious reactions will be lessened and that they will potentially
survive breast cancer and restore “feeling healthy.” The following paradigm statements
illustrate this proposition:

The first time that they ever tell you [you have breast cancer (causal
condition), I probably get in shock...frighten, upset (phenomenon - pessimistic
emotions) ...but I would also think ...nowadays the technology (action strategies -
detection and treatment strategies?; intervening condition -belief in effectiveness
of detection and treatment?) ....you have a better chance of surviving the cancer
than way back (consequence - avoid death and restore health) (group 3).

[I would feel] bad (phenomenon - pessimistic emotions). In my mind....I
would be thinking (causal condition) all the time that I would die from that [breast
cancer] (consequence - anticipated death). But it is not like that, because the
young lady that I told you, she got surgery and got it [breast cancer] removed
(action strategy - seek breast cancer treatment; intervening condition - belief in
effectiveness of treatment) (group 5).
I would feel 'inferior.' Depressed. Sad (phenomenon - pessimistic emotions). Sad from thinking only about that [breast cancer], from thinking about things (causal condition), that there is not much time left (consequence - anticipated death), if you did not treat it in time (action strategy - seek treatment in time; intervening condition - belief in effectiveness of treatment). That is why I get a mammogram every year (action strategy - breast cancer screening; intervening condition - belief in detection and prevention) (group 1).

Self-denial of illness among women of Mexican descent is also another attempt by which some women maintain their sense of "feeling healthy." One of the most important findings of this study is that women of Mexican descent who fail to take responsibility or deny their potential for breast cancer illness are very likely to avoid engaging in breast cancer screening detection strategies. Women tend to believe that not knowing that one has an illness is far preferable to discovering that one has an illness. Conceiving the possibility of discovering an illness like breast cancer seems to trigger, for the most part, a very strong fear of its diagnosis. In an attempt to avoid triggering this fear, some women prefer to abstain from behaviors that would put them at risk of discovering that they have breast cancer. Thus, engaging in breast cancer screening is perceived as a risky rather than a preventive behavior. Women who engage in self-denial avoid touching their body to do BSE or going to obtain a CBE or a mammogram because of the potential of finding breast cancer. In order to engage in breast cancer screening behaviors, women must acknowledge or become aware of the potential for women their
age to develop breast cancer and overcome their fear of its diagnosis. The above proposition is illustrated by the following paradigm statements:

Sometimes I would say is the fear (causal condition and consequence - pessimistic emotions) ‘I don’t want to do it because I am scared am gonna find something’ (intervening condition - self-denial of illness). At times, I am taking a shower (context) and that [fear] (causal condition and consequence), then I don’t want to do the exam (BSE) (action strategy - avoid breast cancer screening) because I say ‘no, if I do it maybe I will have a lump (intervening condition - symptomatic Illness) and I don’t want to know if I have it or not’ (intervening condition - self-denial of Illness).... I never want to know (consequence - ignoring an illness) (group 1).

A lot of times women, even when they may feel a lump (intervening condition - symptomatic illness), they won’t go [obtain a mammogram] (action strategy - avoid breast cancer screening), uh..., its a fear (consequence - pessimistic emotions). There is a possibility that you might have cancer (intervening condition - fear of having cancer) ...if you have to go (action strategy - engage in breast cancer screening) and they tell you yes [breast cancer diagnosis] (causal condition and consequence) then it’s pretty final that you got it (consequence - discovering an illness). But if you don’t go [obtain a mammogram] (action strategy - avoid breast cancer screening) then there is always the ‘not knowing’ (causal condition and consequence). So I think is the
finality of not being told (consequence - ignoring an illness). The fear. Ignorance is bliss...uhum...that’s right, not knowing is better (intervening condition - self-denial of illness) (group 2).

I heard a lot of ladies say that (causal condition). Self-denial. They rather not know (intervening condition - self-denial of illness). They don’t want to know that’s why they think maybe if I go, I am going to find out [about cancer] (consequence - discovering an illness). So they keep postponing it [mammography] (action strategy - avoid breast cancer screening) and having it [mammography] (phenomenon) in the back of their minds (consequence - ignoring an illness) (group 3).

The role of beliefs about propriety of breast cancer screening behavior. Whether women of Mexican descent will engage or not in breast cancer screening detection strategies is also influenced by cultural beliefs regarding the propriety of behavior. Women of Mexican descent who are raised with the belief that their “female identity” or femininity is defined by their physical traits, may avoid engaging in improper behaviors such as breast cancer screening because this behavior may eventually lead them to lose their breast. Thus, because the behavior is considered inappropriate women feel indecent. Additionally, some women feel fearful of the diagnosis of breast cancer because of the possibility of undergoing surgical treatment, and the personal and interpersonal consequence that breast removal would bring to them. Personally, women not only fear losing their feminity but also anticipate some pessimistic (e.g., sadness) and antagonistic (e.g., anger) emotions. They anticipate similar reactions from others if they were
diagnosed with breast cancer and were treated through breast surgery. Furthermore, some women expect that their families, especially their partners or husbands, would blame and/or reject them for having their breast removed. Thus, the anticipation of breast cancer diagnosis, the fear of losing their breast, and the consequences of no longer being considered feminine, prevents some women of Mexican descent from engaging in breast cancer screening behaviors. The following paradigm statement illustrates the above theoretical proposition:

A lot of people would think of a woman that she is not complete if a breast is removed.... (intervening condition - belief in female identity/femininity).

Maybe they [women of Mexican descent] are afraid (phenomenon - anticipated fear) that if they do have it [cancer] (causal condition) and they have to have the surgery [breast surgery] (action strategy - seek surgical treatment) then their husbands will not love them (consequence - losing their husbands love). So they rather not know (consequence; action strategy - avoid breast cancer screening behaviors) (group 3).

Women of Mexican descent who are raised with “female decency” beliefs that it is inappropriate for a female to touch or to see/show her body, are likely to ‘feel indecent’ and avoid performing BSE or obtaining a CBE and/or a mammogram. All three of these breast cancer screening behaviors involve both touching and looking at the breast to detect any abnormalities that might suggest the possibility of breast cancer. Women who violate the cultural standard of propriety regarding touching and exposing their body tend to feel indecent and to experience strong abashing emotions (e.g., embarrassment) and to
judge their behavior as being ‘wrong.’ Failure to engage in breast cancer screening behaviors seems an active attempt by which women seek to avoid “feeling indecent.” Some women who do involve themselves in breast cancer screening detection strategies still appear to experience abashing emotions and feeling ‘wrong.’ However, these women manage to endure or tolerate this experience by drawing from the education that they have received from their health care providers or through using other coping strategies (e.g., cognitive self-talk) for the sake of maintaining “feeling healthy.” The following paradigm statements best illustrate the theoretical proposition of how cultural beliefs about “female decency” influence breast cancer screening behaviors:

I had (causal condition)...yeah, [a] mammogram (phenomenon), one of those in my life, five years ago (context). I don’t know why, but I just don’t like people to be looking at something that’s not theirs, that’s mine (intervening condition - female decency) and it embarrassed me (consequence - abashing emotion) and I have not gotten another one done (consequence - avoid obtaining a mammogram and avoid abashing emotions) (group 2).

I am sure that I heard that [touching one’s body is wrong]...from my mother (causal condition) ... ‘you mustn’t touch here, you mustn’t touch there...it is not decent, it is not proper’ (intervening condition - female decency belief) ... so for a year I couldn’t do it [BSE] (phenomenon; action strategy - avoid breast cancer screening). Then, ‘you have to because...,’ that’s my doctor speaking, (action strategy - drawing from education by health care provider) but I was embarrassed (consequence - abashing emotions but “feeling healthy”) (group 3).
I think that I would not feel right (causal condition and consequence), as it is natural, to be looking to myself in a mirror and touching (action strategy - avoid breast cancer screening) like one is told [to do BSE] (phenomenon) ...it seems wrong to me (consequence - feeling 'wrong'). It seems wrong to me, as if it is something that ought not to be normal, maybe it's foolishness.... That was never discussed. It was considered something wrong, that one would be doing that [touching one’s body] (intervening condition - female decency) (group 4).

The abashing emotions and feelings of doing ‘wrong’ that women of Mexican descent experience when they expose their body seem to be intensified when the health care provider is a male. Some women appear to ‘feel indecent’ when they have a male provider whom they distrust due to his inappropriate behavior. Women distrust a male when he displays behavior that is perceived as ‘mañoso’ (naughty) or indecent and immoral. More specifically, women believe that a male physician tends to examine their breast and vagina (i.e., pap smear) because his intentions are to touch and see the bodies of his female patients in a sexual manner. This perceived behavior by a male is judged to be indecent. Women who have this type of distrust tend to make an active attempt to avoid engaging in breast cancer screening when the procedures (i.e., CBE and mammography) are performed by a male. In a less naughty note, women of Mexican descent distrust their health care providers in general, regardless of their gender, when they perceive them as disrespectful, dishonest, and incompetent. Even when women are not “feeling healthy,” that is, even if they are symptomatic or perceive indicators that point to the possibility of developing breast cancer, they are likely to avoid consulting a
health care provider whom they distrust. In order to engage in breast cancer screening behaviors, women must be cared for by a health care provider who inspires their trust. The following paradigm statements illustrate these theoretical propositions (see also examples of distrust under theoretical themes section, page 111), showing a range of health care providers’ behaviors perceived by women as inappropriate:

I also wanted to say about the [male] doctors like the ladies were saying, they are naughty, it’s true. I had a friend who lived with a doctor and she said he used to say that we think that they don’t get horny...Yes, they are naughty, and evil, and ugly, and behave very... (intervening condition - distrust in male doctors who are perceived as indecent). I went to a doctor (action strategy - going to a male doctor), I won’t say who, but, he was very rude because when I went there to have that [pap smear] (phenomenon - CBE)...I would go and every time he would laugh (causal condition)....every time I would assume the position to be examined. (Interviewer - so, this prevents Mejicanas from going to the doctor at times?) Yes. (consequence - avoid breast cancer screening, CBE) (group 2).

And another thing is the doctor. They may want to take your money (intervening condition - distrust doctors who are perceived as dishonest). That’s what my grandmother said ‘he just wanted the money.’ (causal condition) ‘It’s throwing money away. Going to the doctor is throwing money away (consequence). With that money, I can go buy some herbs (action strategy - seek alternative medicine) and find better relief than with what the doctor will give me’
About 2 years ago (context) I had a pap smear (phenomenon) done here. They (doctors) put you there and then they talk to another doctor to also come and look at you (vagina)...specially if it’s a young doctor (causal condition; intervening condition - distrust doctors who are perceived as disrespectful).

(Interviewer - so why don’t we like to go to the doctors? (action strategy - avoid going to the doctor/CBE) Is not a risk. It’s the embarrassment (consequence - abashing emotions) (group 5).

Women in this study expressed that they feel less indecent if the health care provider who examines their body for breast cancer screening is a female. Overall, women with a sense of “female commonality” prefer female health care providers over male health care providers. Women of Mexican descent feel a special bond with a female health care provider because they believe that females share the same body and the same common experiences. Having a female physician, nurse, or radiologist seems to function as a motivational factor to engage some women in breast cancer screening behaviors because they seem to ‘feel less indecent,’ thus, less embarrassed. The following paradigm statements illustrate several ways in which having a female health care provider serves as a facilitator to motivate women to engage in CBE and mammography breast cancer screening procedures:

I don’t know if it is the Hispanic heritage in me or if it is my personality (causal condition) but I have this thing about seeing a female doctor. I don’t want
to see men (intervening condition - female commonality). When I first started seeing a female gynecologist (action strategy - seek a female health care provider), I think about 10 years ago (context), I couldn’t believe that I had waited that long to start seeing a female gynecologist (phenomenon - CBE; action strategy - breast cancer screening) because I am much more comfortable with a female doctor (consequence) (group 2).

When the Mejicanas (causal condition) go see the doctor [for CBE] (phenomenon - breast cancer screening) they are embarrassed to disrobe themselves (intervening conditions - abashing emotions and female decency) ...

...My daughter will prefer go to a female doctor than to a man doctor (action strategy - choose a female physician)...because you are embarrassed for a man to see you... (consequence - abashing emotions) you are more comfortable with a female doctor (intervening conditions - female commonality) to do a pap smear (consequence - obtain a CBE) (group 3).

(Interviewer - what other things would prevent or motivate us to go get a mammogram?) (phenomenon; action strategy - breast cancer screening). Well, I think that the embarrassment that somebody will see you there naked (intervening condition - abashing emotions and female decency) ....I would accept more to have a woman examine me (action strategy - choose a female radiologist?). I would trust a woman more. I would feel better (intervening condition - female commonality). Maybe since I was little I was taught that (group 4).
More important than female commonality for women of Mexican descent to engage in breast cancer screening, is the “confianza” or trust that women have in their health care provider regardless of gender. “Confianza” is a strong motivator for women to seek health professional interventions to maintain their health and prevent, detect, or treat breast cancer. Women who perceive health care providers as caring, trusting, respectful, and competent, seem to judge their own breast cancer screening behaviors as more appropriate, thus, women ‘feel less indecent.’ Furthermore, women tend be more motivated to visit their health care providers and to attend to their recommendations. Women who have “confianza” in their physician, nurse, or radiologist seem more likely to engage in their recommended monthly BSE, annual CBE, and annual mammography detection strategies. The following paradigm statements illustrate the importance of confianza among women of Mexican descent:

(Interviewer - what do you believe Mejicanas would think about going to a male or female doctor?) (action strategy - engage in breast cancer screening regardless of gender of health care provider). I don't think in my family it matters whether it’s a male doctor or a female. As long as we have TRUST in the doctor and ‘we pass it down to each other.’ It is mostly the trust that you have in the doctor (intervening condition - “confianza”). I think is the education (intervening condition - cultural education regarding ‘trust’ and/or education about breast cancer screening?). I would like to think that all of us here have been educated to where it really doesn't matter as long as we trust them (consequence - engage in breast cancer screening) (group 3).
CHAPTER IV

DISCUSSION

This study gained a better understanding of the cultural health beliefs that influence the breast cancer screening behaviors of women of Mexican descent age 50 and over. More specifically, the study contributed to the literature by developing a culturally-based theoretical model to understand the relationship between cultural beliefs and breast cancer screening behaviors. This theoretical model is important because it is an initial attempt to understand in an articulated conceptual framework the psychological constructs that women have developed regarding breast cancer and breast cancer screening techniques. More importantly, the Cultural Health Belief Model (CHBM) developed is a framework of interconnected cultural health beliefs that gives meaning and explanation to the process by which women of Mexican descent decide to engage in breast cancer screening.

Theoretical models for predicting and improving compliance with breast cancer screening are non-existent for women of Mexican descent (Borrayo, 1997). Thus, the CHBM can help design new efforts to understand and improve compliance with breast cancer screening recommendations. That is, the CHBM can be used for the development of psychologically and culturally sensitive interventions for attitude change to increase breast cancer screening behaviors (Dawson & Thompson, 1989) and decrease the high rates of cancer deaths (Texas Cancer Counsil, 1994) among women of Mexican descent.
Overview of Research Process and Findings

Research Question

The study answered the question: How do cultural health beliefs about breast cancer and breast cancer screening techniques influence the breast cancer screening behaviors of women of Mexican descent? The nature of this question requires an answer that goes beyond description to explain a process. While description can provide factual knowledge about cultural health beliefs, facts alone do not explain the underlying process by which cultural health beliefs influence behavior. Thus, the use of grounded theory was adequate to answer the dissertation's research question. Grounded theory methodology helps to discover and generate explanations about processes by identifying the dimensions and the conditions under which they occur and vary. Furthermore, grounded theory methodology has formal rules of procedure which produce a substantive theory about the process of interest, in this case, the process by which cultural health beliefs about breast cancer and breast cancer screening techniques influence the breast cancer screening behaviors of women of Mexican descent.

The research question was answered by providing a detailed description of the cultural health beliefs and then integrating them around psychological phenomena that conceptualizes how beliefs influence behavior. In this section, the process around two relevant phenomena, "feeling healthy" and "feeling indecent," is explained to summarize the proposed CHBM. The CHBM is then discussed within a sociocultural and a socioeconomic context to better understand the conditions under which the model is likely to predict the breast cancer screening behaviors of women of Mexican descent.
Summary of the Cultural Health Belief Model

“Feeling healthy” followed by “feeling indecent” are the psychological phenomena that best explain how cultural health beliefs about cancer and cultural beliefs about screening behavior influence the breast cancer screening behaviors of women of Mexican descent. Cultural beliefs impact how women interpret “feeling healthy” and “feeling indecent” which in turn affects their decision to engage in breast cancer screening behaviors. The interpretation women give to their beliefs influence their behavior through subjective feelings and cognitive awareness of their health status and their susceptibility to develop breast cancer. Furthermore, the anticipation of personal and interpersonal consequences of developing breast cancer impacts women’s interpretations and ultimately their decision to engage in breast cancer screening. To illustrate the decision making process, an explanation of the phenomena found follows.

The interpretation of “feeling healthy” is in part influenced by women’s cultural health beliefs about the causes, nature, and responsibility for breast cancer illness. Women’s cognitive awareness of their susceptibility to develop breast cancer comes primarily from their interpretation of what they believe are four major causes of breast cancer: detrimental sources, breastfeeding, physical predetermination and divine predestination factors. Women’s beliefs in these causes strongly influence their assessment of whether they are healthy or can potentially develop breast cancer. The belief in “physical predetermination” causes such as heredity is the most influential of these beliefs. Women’s cognitive awareness of being susceptible to develop breast cancer due to a family history of cancer makes these women less likely to “feel healthy”
and consequently more likely to screen. The opposite is true for women without a family history of cancer, they are aware of being less susceptible to breast cancer and are more likely to “feel healthy,” consequently, less likely to engage in breast cancer screening.

To a lesser extent, beliefs in detrimental sources, breastfeeding, and divine predestination as causes of cancer also influence women’s assessment of whether they can potentially develop breast cancer. Based on their assessment, women take or decide not to take certain preventive and detection measures to maintain their sense of “feeling healthy.” Among the measures some women take to prevent getting breast cancer are avoiding detrimental sources, breastfeeding correctly, and praying for divine protection. Cognitive awareness that they have taken these measures in the past or currently, impacts women’s sense of “feeling healthy” and further influences women’s decision to engage in breast cancer screening behaviors. Detection, through breast cancer screening strategies, is more often predicted by women who perceived they have failed to take these preventive measures and who feel vulnerable to breast cancer.

Cultural health beliefs about the nature of breast cancer illness also impact women’s interpretation of “feeling healthy” or being vulnerable to breast cancer. Women’s interpretation of the nature of the illness influences both their subjective feelings of physical well-being and their cognitive awareness of their susceptibility to develop breast cancer. Depending on the existence and the strength of health beliefs that the nature of breast cancer is symptomatic, fatal, shameful, and/or contagious, women will decide to engage in breast cancer screening. The belief that breast cancer is a “symptomatic illness” is the most influential belief on women’s decision to engage in
breast cancer screening. That is, women who do not perceive any symptoms and “feel healthy” are likely to not engage in breast cancer screening. On the other hand, women do not “feel healthy” if they perceive certain symptoms that they believe are indicative of breast cancer. Thus, women who no longer “feel healthy” and become cognitively aware of their susceptibility are more likely to engage in breast cancer screening behaviors.

To a lesser extent, the cultural health beliefs that the nature of breast cancer is fatal, shameful, and contagious also influences women’s decision to engage in breast cancer screening. Based on past experiences with other illnesses, women anticipate certain personal and family reactions to “feeling healthy” versus “having breast cancer” and the consequences of both, but especially of having breast cancer. Anticipated reactions of having breast cancer such as fear, blame, and rejection for having breast cancer, and perceived consequences such as death and negative stigma, seem to influence women’s decision not to engage in screening. That is, women do not screen in order to avoid getting a diagnosis of an illness that will bring unwanted reactions and consequences. Women who anticipate they will be able to tolerate the anticipated reactions and consequences are more likely to screen for the sake of “feeling healthy.”

Cultural health beliefs regarding who is responsible for the development of breast cancer, women themselves or a supernatural power, also influence the degree to which women anticipate negative reactions and consequences, which in turn influences their decision to engage in breast cancer screening. Women who question the degree of their own responsibility usually end up thinking that they are not responsible since they are basically ‘good’ people who do not deserve a ‘bad’ illness such as breast cancer. This
belief stems from a macroscopic belief in a "just world." Women with a "just world" belief tend to anticipate feeling mostly angry, distressed, and rejected if they were to develop breast cancer, and with such anticipations they are more likely to avoid screening. Women prefer to believe that because they are 'good' people they should be "feeling healthy" and do not need to be screening for something 'bad,' breast cancer.

Women of Mexican descent believe that if they develop breast cancer, without feeling personal responsibility, it is because a supernatural power such as "God's will" is responsible for the development of this illness. Women who believe that breast cancer is dependent on a supernatural power are more likely to avoid engaging in breast cancer screening behaviors. If the illness is someone else's responsibility, it is understandable why it is hard for women to conceptualize breast cancer as an illness that can be prevented and screened. Thus, women with this belief are more likely to rely on their sense of "feeling healthy" and to wait until they have developed breast cancer to engage in after-the-fact strategies such as breast cancer diagnostic procedures, prayer for divine healing and/or medical treatment. The belief that illness is the responsibility of a supernatural power also influence women's anticipation of a good or bad psychological adjustment to breast cancer diagnosis and potential breast cancer death. "Acceptance of the illness" and/or death from the illness sent by "God" is perceived by women of Mexican descent as the best indicator of good psychological adjustment.

"Self-denial" is an important form of failing to take responsibility for breast cancer illness. Except that this belief is not about responsibility for the development of breast cancer but about responsibility for 'finding' or for screening for breast cancer.
Thus, getting the diagnosis of a distressing illness becomes one’s responsibility. Since some women of Mexican descent would rather not know that they have breast cancer than to know that they have it, these women are more likely to avoid screening. That is, self-denial is an attempt by women to maintain their sense of “feeling healthy.” Some women of Mexican descent who do not feel healthy also avoid engaging in breast cancer screening because they are fearful of the formal diagnosis of breast cancer. These women cope with their fear of the diagnosis by engaging in cognitive denial of the possibility of having breast cancer and by not engaging in breast cancer screening.

“Feeling indecent” is another phenomenon, secondary but related to “feeling healthy,” that appears to reduce the breast cancer screening behaviors of women of Mexican descent. “Feeling indecent” involves a cognitive perception that women’s behavior is inappropriate when they engage in screening and a consequent subjective experience of embarrassment. Women judge the propriety of their screening behavior, regardless of whether they “feel healthy” or susceptible, based on cultural beliefs regarding standards for appropriate female behavior and health care provider behavior.

The beliefs in female decency, female identity, and female commonality refer to beliefs about the propriety of female behavior. “Female decency” is the most influential of these beliefs. The extent to which women believe that females should conform to prevailing cultural standards regarding not touching and exposing their body, will determine the degree to which women “feel indecent” when they engage in breast cancer screening. Women who dislike touching or exposing their body tend to “feel indecent” and are more likely to avoid performing BSE and going for CBE and/or mammography.
Since, the belief that it is inappropriate to touch/show one's body is so pervasive among women of Mexican descent, those women who are more likely to screen are those who cognitively prioritize their sense of "feeling healthy" over "feeling indecent."

Women of Mexican descent who believe that their "female identity" is defined by their physical traits avoid engaging in improper behavior such as screening because this behavior might lead them to lose their breast. Women fear a breast cancer diagnosis because they anticipate that the treatment for it will be the removal of their breasts. Some women also anticipate interpersonal consequence of losing their breast, among the most important is the loss of their partner's love. Women who are more likely to engage in screening are those who cognitively prioritize their sense of "feeling healthy" over their fear of losing their female identity and its potential interpersonal consequences.

"Female commonality" is the belief that all women have a common bond because they share the same experiences and have the same type of body. Based on this belief, it is more appropriate to be seen and touched by a female health care provider than by a male. Women with a strong belief in "female commonality" are more likely to engage in breast cancer screening if the provider is a female. Consequently, women also "feel less indecent" about their screening behavior. However, some women do engage in screening when the provider is a male who inspires their trust. Thus, more important than gender of the provider to encourage women to screen is the trust that they have in their provider.

The extent of the health care provider's behavioral conformity to standards of appropriate behavior among persons of Mexican descent, will influence whether women distrust or trust their providers. If the provider's behavior is judged to be appropriate,
women are likely to feel “confianza” (trust) and will engage in breast cancer screening. If the provider’s behavior is judged to be inappropriate, women will distrust the provider. For the most part, women who distrust their health care providers are likely to “feel indecent” about their own behavior and avoid engaging breast cancer screening procedures such as CBE and mammography with that provider.

Apart from “feeling healthy” or susceptible to develop breast cancer, or “feeling indecent” about engaging in breast cancer screening, women of Mexican descent face socioeconomic and sociocultural barriers that prevent them from screening.

Socioeconomic factors such as levels of acculturation, income, and education are strong factors that determine women’s breast cancer screening behaviors (Harlan et al., 1991; Treviño et al., 1991). Socioeconomic factors are also likely to be associated with the cultural health beliefs of women of Mexican descent (Perez-Stable, Sabogal, Otero-Sabogal, Hiatt, & McPhee, 1992). Women’s place of birth, the society (Mexico or U. S.) in which they were raised, and the society in which they currently live (U. S.), are among the sociocultural factors which impact women’s cultural health beliefs (Gordon, 1994), and consequently, women’s breast cancer screening behaviors (Peragallo, Fox, & Alba, 1998). However, the complex interaction among sociocultural variables, socioeconomic factors, cultural health beliefs, and breast cancer screening behaviors of women of Mexican descent is not well understood. The dissertation proposes some hypotheses regarding this interaction by discussing the CHBM in light of findings from previous studies on Hispanic women’s cultural beliefs and breast cancer screening behaviors.
The Cultural Health Belief Model in a Sociocultural Context

Traditional Health Beliefs and Western Health Beliefs

Women of Mexican descent in this study included immigrant women born in Mexico (n = 16) as well as native women born in the United States (n = 18). Both immigrant and native women have been exposed, to one extent or another and to different degrees, to the health beliefs and practices that exist in Mexico coupled with the health beliefs and practices of the United States. That is, women have a dual system of cultural health beliefs as a result of being exposed to two cultures (Cohen, 1979). Recent studies (Castro, Furth, & Karlow, 1991; Gordon, 1994) investigating the health beliefs of persons of Mexican descent support the notion that folk schemata of health beliefs from Mexico do not necessarily exist to the exclusion of Westernized schemata of health beliefs.

Immigrant women from Mexico to the United States are more likely to come from rural settings in Mexico (Donato, 1993). However, approximately 80% of these immigrant women have settle in urban areas in the United States. In spite of urban settlement, many retain the cultural patterns, values, and beliefs of rural Mexico (Gordon, 1994). That is, immigrant women from Mexico tend to retain a very traditional identity and preserve their cultural health beliefs. Due to their strong oral traditions (Sherrard-Sherrade & Barrera, 1995), immigrant women are likely to transmit their cultural values and health beliefs to their offspring. Thus, women of Mexican descent born in the United States may also embrace traditional health beliefs from Mexico, although they are more likely to have more assimilated beliefs to the dominant society (Rodriguez, 1983).
In this study, the beliefs that originate from the culture in rural Mexico were identified as “traditional health beliefs” and beliefs that originate from a more modern culture, such as that in the U. S. urban society, were identified as “Western health beliefs” (Chandler, 1979). However, it is important to acknowledge that in Mexico, Western medicine is also recognized and practiced. In order to avoid confusion, “traditional or folk health beliefs” refer to those based on assumptions and traditions that have evolved over the centuries in Mexico (Gordon, 1994) and have been passed down from generation to generation. Western health beliefs refer to beliefs that are based on the assumptions of modern society and medicine (e.g., cause-and-effect relationships, disease prevention). This distinction does not imply, however, that the Western health beliefs that women embrace about breast cancer and breast cancer screening are more accurate than traditional health beliefs. In fact, a previous study by Perez-Stable et al. (1992) found that some Western health beliefs that persons of Hispanic descent hold about causes and symptoms of cancer are inaccurate, that is, unsupported by conclusive scientific data.

The CHBM proposed in this study for women of Mexican descent is dual, includes traditional health beliefs and Western health beliefs. The CHBM also exists in a continuum, that is, at various dimensions between traditional and Western health beliefs. The term “cultural health beliefs” includes both traditional and Western health beliefs. In this discussion, the cultural health beliefs found in this study are compared to the cultural health beliefs that have been found in other studies with Hispanic women, including women of Mexican descent.
Health beliefs about the causes of breast cancer. Women of Mexican descent participating in this study expressed both traditional health beliefs and Western health beliefs regarding the causes of breast cancer. Traditional health beliefs seem to be those that women have learned from their ancestors. Women have typically heard from their mothers and grandmother that physical trauma (i.e., "un golpe"), breastfeeding incorrectly, and sexual activity (i.e., handling of the breast) are specific causes of breast cancer. A supernatural cause such as divine predestination (e.g., God’s will) is also a traditional belief about illness that is given as an explanation for breast cancer. These traditional health beliefs have also been found in other studies with Hispanics, including women of Mexican descent. Perez-Stable et al. (1992) initially used a focus group methodology with 20 Hispanic men and 20 Hispanic women to identify causes of cancer and attitudes toward having and preventing cancer. A questionnaire with the identified causes and attitudes was developed and administered through telephone interviews. Perez-Stable et al. found in their sample of Hispanics (n = 844) that 53% believed that cancer is caused by physical trauma, 31% by sexual relations, 14% by breastfeeding, and 7% by divine predestination.

Women of Mexican descent in this study also expressed Western health beliefs regarding the causes of cancer. While the incidence of breast cancer cannot be predicted with certainty, there are some factors associated with the disease that have been mistaken as “causes” of breast cancer. Women mentioned only one risk factor, heredity, as a possible “cause” of breast cancer. There are other factors associated with breast cancer such as age, never giving birth, first birth after age thirty, extended fertility, and obesity
(Cole & Amoateng-Adjepong, 1994), which women in this study failed to mention.

Women instead mentioned erroneous beliefs in detrimental and behavioral sources that are typical of modern society such as smoking cigarettes, caffeine, processed food, contaminated food, too much fat, radiation, pollutants, diet and hormone pills, sedentary lifestyle, and stress, as possible causes of breast cancer. Some of these detrimental sources (e.g., caffeine, smoking, diet) may appear in the popular media as possibly being associated with cancer, but none has yet been unequivocally linked scientifically to breast cancer (Cole & Amoateng-Adjepong, 1994).

Other studies with Hispanic women have found some of the same Western health beliefs that were found in this study’s sample of women of Mexican descent. Saint-Germain and Longman (1993) conducted in-depth face-to-face interviews with 409 Hispanic women, most of Mexican descent, over the age of 50 years living in a metropolitan area. Approximately 38% of the sample named family history (heredity), 44% smoking cigarettes, 63% diet and lifestyle, 26% medication and radiation, and 18% alcohol and drugs, as risk factors among others for developing breast cancer. Perez-Stable et al. (1992) found in their sample of Hispanics, most of Mexican and Central American descent, similar misconceptions about the causes of cancer. In the sample of 844 Hispanics, 97% mentioned smoking cigarettes, 83% environmental pollutants, 55% alcohol intake, 61% food additives, 47% microwave ovens, and 23% caffeine, among several other detrimental sources erroneously believed to cause cancer.
In comparison to previous studies that have only identified beliefs about causes, this study goes a step beyond to explain how cultural health beliefs about causes of breast cancer may influence the breast cancer screening behaviors of women of Mexican descent. In essence, women seem to utilize their cultural health belief system regarding causes of breast cancer to assess, at the subjective and cognitive level, the state of their physical health ("feeling healthy"). This assessment will influence, at least partially, women’s decision to engage in breast cancer screening. Women are more likely to engage in breast cancer screening behaviors, if they perceive indicators or causes that threaten their health and make them feel susceptible to develop breast cancer. That is, for example, women with a family history of breast cancer are more likely to indicate that they perform BSE, and/or engage in CBE and mammography screening with more frequency. In the other hand, if women do not perceived any indicators that suggest they are susceptible to develop breast cancer, women are less likely to engage frequently in breast cancer screening.

**Health beliefs about the nature of breast cancer.** Women of Mexican descent in this study expressed the traditional health beliefs that the nature of breast cancer as an illness is fatal, contagious, shameful, and symptomatic. The most strongly recognized of these beliefs by women appears to be the belief that the nature of breast cancer is symptomatic. The belief in a symptomatic illness is also the most influential belief on women’s decision to engage in breast cancer screening behaviors.

Women voiced the belief that there are certain symptoms that characterize breast cancer. The symptoms most commonly mentioned by women were pain, a lump, and a
burning sensation. Women also made comments about symptoms under the vague label “feeling sick.” It is likely that by the time women feel a breast cancer symptom or feel sick overall, breast cancer will be diagnosed at an advanced stage, when it is too late to be treated successfully. More encouraging is that few women thought it was possible for someone to have breast cancer and not feel sick but “healthy.” If these women would decide to engage in breast cancer screening, breast cancer may be found at an early stage, when it can be treated successfully. However, most women indicated that the presence of symptoms would serve as a strong and best indicator of the possibility of having breast cancer. Furthermore, these women said that if they no longer felt healthy they would engage in breast cancer screening behaviors.

Women in this study also perceived that breast cancer screening or “going to the doctor for a check-up” was even a risky behavior, because the fear of finding something seemed to predominate over the fear of not finding cancer if it is present. Saint-Germain and Longman (1994) found the same beliefs and fear in their sample of Hispanic women. In their study, going to the doctor without feeling ill but “feeling healthy” was seen not only as a waste of scarce resources, but also as “just asking for trouble,” since “doctors are sure to find something wrong with you” and “you can’t trust tests” (p. 261).

Other studies on women of Hispanic descent have also found the belief that the nature of breast cancer is symptomatic. Saint-Germain and Longman (1993) found that nearly all the women in the sample (n = 409) could name at least one of the recognized signs and symptoms of breast cancer. The sign mentioned most often was a lump (84% of the sample), followed by ache or pain (42%), nipple discharge (17%), differences in
breast size (10.5%), heat (10%), puckering (6%), and scaly skin (5%). In addition to these commonly acknowledged signs of breast cancer, however, a number of erroneous signs or symptoms were mentioned by fewer respondents, including fever or hot flashes; pain in the back or chest; rash, itching or change in color; bruises; sores that won’t heal; nipple changes; and general nausea, dizziness, or “feeling sick.” Some of these signs are associated with other types of cancer or with cancer treatments but none is recognized as a sign or symptom specifically applicable to breast cancer.

Salazar (1996) found that women believed that symptoms of some sort will occur if breast cancer is present and that these symptoms will be an incentive to seek health care. Otherwise, women believe that if there were no symptoms and they were feeling healthy, there was no reason to access services: “I haven’t felt the least bit of discomfort. You only need to have this exam [mammography] when you feel a pain in your breast. You need to get this exam when you have a lump or some discomfort. At the moment, that’s when one needs to go...because cancer of the breast usually causes pain” (p. 441). Another woman said: “If I felt something was wrong, if I was sick, then I would go to the doctor. I feel fine so why should I go have this exam? I just feel no need for it” (p. 441).

In this study, the belief that breast cancer is a “fatal illness” is another health belief about the nature of breast cancer voiced by women of Mexican descent that seems to influence women’s decision to engage in breast cancer screening. Among some of the things women have heard about the nature of breast cancer is that it is an illness that has no cure, thus, individuals who get cancer cannot escape their fate and they die. Based on
this belief, breast cancer screening may be seen a futile behavior towards finding an illness that even if it is found on time, it cannot be cured.

Saint-Germain and Longman (1994) and Salazar (1996) using a focus group methodology with Hispanic women found similar beliefs about the nature of breast cancer illness. Saint-Germain and Longman found that women of Hispanic descent who had been seen by a doctor within the past year expressed more severe turmoil at the thought of developing breast cancer than women who had not seen a doctor. Women expressed that they viewed breast cancer as a "death sentence" (p. 265). Perez-Stable et al. (1992) also found that 46% (387) of their Hispanic sample believed that having cancer is like getting a death sentence. That is, persons of Hispanic descent believed that breast cancer is an illness that inevitably causes death even if treatment is received. Salazar also found that Hispanic women fear the diagnosis of breast cancer: "One knows clearly, cancer is something big, true? And something fatal" (p. 441). The belief that breast cancer is fatal is linked to the traditional belief that there is little an individual can do to alter fate, "fatalism" (Sandoval & de la Rosa, 1986).

Other beliefs about the nature of breast cancer that were found in this study, are that breast cancer is a "contagious" and a "shameful" illness. Women have heard that other people of Mexican descent try to stay away from those who have cancer or avoid having any type of contact with the corpse of those who have die of cancer because it is a contagious illness. Women also indicated that in more traditional families when a member has cancer or dies of cancer, the rest of the family tries to keep it as a family secret. Secrecy is maintained to avoid bringing shame and dishonor to the individual and
the family since cancer, like other chronic illnesses, is considered in the Mexican culture to be a shameful illness.

Saint-Germain and Longman (1994) found that cancer was characterized by their sample as a disease that one could get from being in a hospital, or from being around other people with cancer or corpses of people who had died from cancer. Other women said that they wouldn’t allow other people to touch them if they were to get cancer. In other words, women believed that breast cancer is a contagious illness. Perez-Stable et al. (1992) also found that 4% (34) of their sample believed also that cancer is contagious. The present findings are somewhat different from the two previous studies in that most women of Mexican descent said that “other” people of Mexican descent believe that cancer is contagious. Thus, women expressed that if they were to develop breast cancer, they would not like for other people to know in order to avoid the stigma that is associated with the illness. This attitude has been found also to be a coping strategy to avoid more serious implications for establishing and maintaining social support in the presence of illness (Klonoff & Landrine, 1994).

Health beliefs about the responsibility for breast cancer. This study found three main beliefs that pertain to allocating responsibility for getting breast cancer: just world beliefs, acceptance of illness, and self-denial of illness. Women in this study believe that in a “just world” there should be justice so that “good people” like them should not develop a “bad illness” like cancer. Women indicated that in the event of getting breast cancer some women of Mexican descent would question whether themselves and/or a supernatural power was responsible for allowing a bad illness to happen to them. Women
also believe that if women of Mexican descent developed breast cancer they would deny or accept having the illness. Acceptance of breast cancer is perceived as an act of responsibility and as an indicator of psychological adjustment. Women also believe that they can avoid personal responsibility for finding breast cancer if they deny to themselves the possibility that they could develop the illness. Avoidance of responsibility through psychological self-denial leads women to avoid engaging in breast cancer screening.

"Just world" and acceptance of the illness appear to be after-the-fact beliefs. That is, women use these two beliefs to explain getting cancer after they have been given a definitive diagnosis. Thus, this belief is less relevant to taking responsibility for breast cancer screening. Saint-Germain and Longman (1994) heard comments from Hispanic women which suggest they believed that they would not get breast cancer because "I don’t do anything wrong" (p. 259). Other women wondered why God would send them this illness. Another common theme was "estar conforme" (to accept or conform to). Hispanic women indicated that illnesses should be accepted as God’s will, “about which little can be done” (p. 259). Others said that would accept it, but they would not like it. One women concluded, “I guess the hardest thing is to accept it” (p. 259).

Self-denial appears to be the health belief regarding responsibility that most directly impacts the breast cancer screening behaviors of women of Mexican descent. Previous studies have found that Hispanic women, especially older women, tend to deny more strongly that they could develop breast cancer. Saint-Germain and Longman (1994) found in their sample of 409 Hispanic women that 43% of them provided statement that indicated denial. They provided statements such as, “I won’t get it” or “I wouldn’t want to
know if I had it” (p. 264). Denying the possibility for developing breast cancer or finding its diagnosis leads to failure to engage in breast cancer screening. In order to get a sense of the distribution of denial and other attitudes among their sample, Saint-Germain and Longman used Weissman’s 1979 Coping with Cancer scale (as cited in Saint-Germain and Longman, 1994). Coding ranged from a score of 1 for weak or mild to a score of 4 for strong or severe manifestation. The average score on denial was strong (just under 3). Other comments by Hispanic women in Saint-Germain and Longman’s study suggest that they did not want to know a diagnosis because they were more threatened than reassured by the treatments available for breast cancer such as surgical breast removal. Losing their breast further meant losing their female identity and burdening their family.

The data suggests that women of Mexican descent engage in self-denial and avoid breast cancer screening because they are threatened by the diagnosis of breast cancer and its anticipated consequences (i.e., personal and interpersonal). Again, breast cancer screening is perceived as a risky behavior because the fear of finding cancer predominates over the fear of not finding if it is present (Meyerowitz & Chaiken, 1987).

Cultural beliefs about the propriety of behavior. Traditional cultural beliefs about propriety of female and health professional behavior with respect to breast cancer screening techniques were mentioned by women of Mexican descent participating in this study. That is, women recognized that traditional beliefs in female decency discouraged most of them from touching and seeing their body to do BSE, or allowing others to touch or see their bodies to conduct CBE and mammography. These findings are consistent with other studies (e.g., Salazar, 1996) which have interviewed Hispanic women and have
found that these women do not like to expose their bodies: "The Latin women have moral beliefs; it comes from their roots. We don’t want to expose our breasts" (p. 441).

Furthermore, touching and exposing their bodies causes women of Hispanic descent to feel embarrassed, especially if the procedure is performed by a male health care provider: "It would embarrass me that a man I didn’t know manipulated my body in this manner. It embarrasses us Mexican women more than it does a White person to have an exam like this [mammography]. I will go to the doctor when I have my babies. Otherwise it is just too difficult to endure" (p. 441).

Saint-Germain and Longman (1993) found in their sample of 409 Hispanic women that 7% of the sample thought that doing BSE was embarrassing while 33% thought that having CBE done to them was embarrassing. Women in their study qualified their statements to the interviewer to indicate that they were more embarrassed by having a male rather than a female doctor, a phenomenon previously found by Lurie and Lawrence (1972) among women of Mexican descent. Saint-Germain and Longman did not ask women if engaging in mammography was embarrassing. Salazar (1996) found that there was a strong sense of embarrassment among Hispanic women which was said to be an important barrier to participating in mammography screening. Many women related their abashing emotions to their moral and cultural beliefs.

Based on the present findings and findings from previous studies, the theory postulates that beliefs in maintaining female decency provoke strong feelings of embarrassment when women participate in breast cancer screening. Thus, in order to avoid feeling embarrassed, some women of Mexican descent do not engage in BSE, CBE
Belief in female commonality is another belief about propriety of behavior that was voiced by women of Mexican descent in this study. Women believe that they share a strong bond with female health care providers because they share some common experiences and have the same type of body. Beliefs in female commonality serve as both barriers and facilitators to breast cancer screening. Women indicated that many women of Mexican descent abstain from participating in health care services if these are not provided by a female provider and some women feel more motivated to participate when the health care provider is a female. Seeking the services of a female was seen as more culturally appropriate among women of Mexican descent than having a male health care provider. However, there were participants who expressed positive sentiments about their male health care providers but this depended on “confianza,” described below. Other women were equally satisfied with a male or a female health care provider, although they said they were more comfortable with a female.

In Salazar’s (1996) study some of the Hispanic women interviewed stated that they would only go to a female health care provider for mammography. Others said that having a female nurse present when a male physician performed the exam made it more acceptable to have the procedure done by a male. The ideal would be, according to one woman, “a woman doctor who did not charge too much” (p. 442). Saint-Germain and Longman (1994) receive similar reports of preference for a female to perform the clinical breast exam.
Beliefs about the propriety of health care professional behavior were expressed around issues of distrust and trust ("confianza") towards the professional. Distrust in health care providers whose behavior, under traditional cultural standards, shows disrespect, incompetence, and insensitivity, was found to discourage women from engaging in breast cancer screening. This distrust extends even towards female health care providers who do not conform to more traditional standards of appropriate behavior, although having a female health care provider is important among women who find female commonality encouraging. Health care providers who conform to traditional standards of behavior are more likely to gain the trust or "confianza" of women. This suggests that women of Mexican descent need to establish deep trust in their health care providers in order to attend to their recommendations regarding breast cancer screening. These findings are consistent with studies that have found that persons of Mexican descent tend to respond more readily to directions and treatments when it is clear that the health care provider incorporates cultural beliefs and values into the plan of care (Harwood, 1981; Marsh & Hentges, 1988).

Zea, Quezada, and Belgrave (1997) indicate that given the high value Hispanics place on relational orientation, developing a relationship with their health care provider becomes a critical treatment element. They believe that only then will "confianza" take place, which is basic to complying with treatment recommendations. Zea et al. suggest that in a time of shrinking resources, where managed care physicians are mandated to restrict the time they spend with patients, Hispanic patients will not be well served if not enough time and/or quality time is spent in developing "confianza."
The Cultural Health Belief Model within the Health Belief Model Context

The Health Belief Model (Rosenstock, 1966) has been the Western theoretical model most widely used to investigate the psychological factors, such as health beliefs, associated with preventive behaviors of non-Hispanic Caucasian women and women of Hispanic descent (Hyman et al., 1994, Richardson et al., 1987). The Health Belief Model (HBM) was first modified by Champion (1991) and incorporated into a scale to understand the use of two breast cancer screening techniques, breast self-exam and mammography, among mostly non-Hispanic Caucasian women. Borrayo’s (1997) study was the first to use Champion’s scale with a sample of women of Mexican descent to test the fitness of the entire HBM for predicting their breast cancer screening behaviors. Overall, health beliefs as defined by the HBM were found to be weak predictors of breast self-exam and mammography, especially for women of Mexican descent born in Mexico. This study was proposed as a result of insatisfaction with Borrayo’s findings using a Western health belief model to understand and predict the psychological and cultural constructs that impact the behaviors of women of Mexican descent.

The following section compares and contrasts findings from previous studies using the health belief constructs proposed by the HBM: Susceptibility, Seriousness, Benefits, Barriers, and Confidence, in light of the cultural health beliefs found in this study. The section also discusses how the proposed CHBM might better explain the low rates of breast cancer screening behaviors of women of Mexican descent. Suggestions are provided on how to further test the HBM by modifying it according to the CHBM and using more culturally sensitive methodologies.
Susceptibility. Refers to the perceived likelihood of developing an illness, in this case breast cancer illness (Champion, 1990). Although Susceptibility is proposed to be a strong motivator to engage in preventive behaviors (Rosenstock, 1988), perceived Susceptibility has not been found to be a strong predictor of breast cancer screening behaviors (BSE, CBE and, mammography) of women of Hispanic descent (Richardson et al., 1987; Zapka et al., 1989). Champion (1992) and Jenest (1991) suggest from their findings that even though Hispanic women consider breast cancer serious, they do not feel susceptible to breast cancer which may result in low rates of breast cancer screening among this population. Borrayo (1997) found that perceived Susceptibility was not a strong predictor of BSE or mammography compliance for either women born in Mexico or women born in the United States. Borrayo’s study used Champion’s (1991) HBM scale in which Susceptibility included items such as: “I think I will get breast cancer in the future;” “I am more likely than the average woman to get breast cancer;” and “There is a good chance I will get breast cancer in the next 10 years;” among others.

In light of this dissertation’s findings, the construct of Susceptibility may be a strong predictor of breast cancer screening but it may have a different meaning and implications for women of Mexican descent than that suggested by the HBM (Rosenstock, 1966). Women construe being “susceptible” to develop breast cancer influenced by their cultural health beliefs about this illness. More specifically, women who are less likely to feel susceptible are those who hold more traditional health beliefs about causes (e.g., “un golpe” and/or breastfeeding), nature (e.g., symptomatic), and responsibility (e.g., self-denial) regarding breast cancer. For example, a woman may
think that because she has breastfed correctly and she has no symptoms of breast cancer, she is has ‘less chances than the average women to get breast cancer in the future.’ Therefore, she does not need to engage in breast cancer screening.

“Symptomatic illness” appears to be the strongest influence on how susceptible women feel, thus, it is also the strongest influence on their interpretation of how serious breast cancer is. This subjective and cognitive interpretation is the best predictor of whether or not women will engage in breast cancer screening. However, another cultural variable to recognize is that regardless of whether they “feel healthy” (no symptoms) or “susceptible,” women of Mexican descent are also likely to engage in “self-denial” due to their fear of developing breast cancer, and thus, fail to screen anyway.

If the HBM items were modified to reflect more cultural sensitivity, they would probably be more accurate predictors of the breast cancer screening behaviors of women of Mexican descent. The items may be modified to include more specific statements about the instances in which women may feel susceptible. For example, “I think I will get breast cancer in the future because I have bumped my breast;” “I am more likely than the average woman to get breast cancer because I failed to breastfeed;” and “There is a good chance I will get breast cancer in the next 10 years, because of the history of breast cancer in my family.”

**Seriousness.** Refers to the perceived personal harm related to the illness, in this case breast cancer illness (Champion, 1990). Although Seriousness is proposed to be a strong motivator to engage in preventive behaviors (Rosenstock, 1988), perceived Seriousness has been omitted by most studies using the HBM to predict breast cancer
screening behaviors (e.g., Hyman et al., 1994). However, Stillman (as cited in Hyman et al., 1994) indicates that the literature supports that breast cancer is uniformly perceived as serious by all women, including women of Hispanic descent, and thus, is not a good predictor of breast cancer screening behaviors. Borrayo (1997) found that perceived Seriousness was not a significant predictor of breast cancer screening behaviors (BSE and mammography) of women of Mexican descent, whether they were born in Mexico or the United States. Borrayo used Champion’s (1991) HBM scale in which Seriousness included items such as: “The thought of breast cancer scares me;” “If I get breast cancer, my life will never be the same;” “If I get breast cancer, it’ll threaten my intimate love relationships;” “If I get breast cancer I will feel negatively about my body” and “If I develop breast cancer, I will feel less feminine;” among others.

According to the CHBM proposed in this study, the construct of Seriousness as stated by the HBM may not be a strong predictor of breast cancer screening of women of Mexican descent since all women may perceive significant personal harm if they were to develop breast cancer. For women with more traditional health beliefs, breast cancer is a serious illness because according to their cultural health beliefs it is a fatal, shameful, and contagious illness. For example, women may be scared by the thought of breast cancer since this illness is like “getting a death sentence” due to its fatal nature. Women may also feel that their lives will never be the same because of the stigma and consequent rejection and blame they will suffer for having a shameful and contagious illness. Women of Mexican descent may also perceive great harm based on their beliefs regarding “female identity.” Most women in this study expressed that breast cancer is serious because if
they were to loose their breast, they would ‘feel less feminine and negatively about
themselves.’ In anticipation of these personal and similar interpersonal consequences,
women of Mexican descent view screening as a risky rather than preventive behavior,
view which contradicts that of Western health beliefs.

Benefits. Refers to the perceived positive attributes related to breast cancer
screening (Champion, 1990). Although perceived Benefits are proposed to be a strong
motivators to engage in preventive behaviors (Rosenstock, 1988), perceived Benefits has
not been found to be a strong predictor of breast cancer screening behaviors (BSE, CBE
and, mammography) of women of Hispanic descent (Richardson et al., 1987; Zapka et al.,
1989). Instead, Borrayo (1997) found that perceived Benefits from performing BSE was a
predictor of monthly BSE compliance for both women born in Mexico and women born
in the United States. After adjusting for socioeconomic factors and health professional
interventions, Benefits was significantly but negatively associated with BSE compliance.
That is, women who perceived positive attributes related to BSE screening were less
likely to screen. These findings contradict the basic assumptions of the HBM in that,
according to this model, perceived positive attributes would predict greater compliance
with breast cancer screening guidelines. However, in light of this study’s findings, the
negative relationship between perceived Benefits and compliance with monthly BE
performance is understandable and can be predicted.

The CHBM suggests that ‘perceived Benefits,’ as defined by the HBM, might be
perceived quiet differently for women of Mexican descent. According to the HBM, there
are Benefits to BE screening because breast cancer illness can be found on time if the
person engages in this behavior at least once a month. For example, Champion’s (1991) HBM scale for BE Benefits included items such as: “If I do monthly BE, I will not worry as much about breast cancer;” “If I do BE every month during the next year, I will decrease my chances of dying from breast cancer;” and “If I complete BE monthly, I will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs;” among others. This study, instead found that women of Mexican descent who engage in “self-denial” would rather not know that they have breast cancer than to know that they have it. Their refusal to believe they could have breast cancer seems to be linked to very strong pessimistic emotions due to anticipated consequences (e.g., fear of finding breast cancer, fear of losing their breast).

The CHBM suggest that in an attempt to deny breast cancer and to avoid responsibility for finding it, women of Mexican descent do not perceive benefits from engaging in breast cancer screening procedures. For example, women think that by doing monthly BE, they will worry more about breast cancer than if they did not screen due to the negative consequences they anticipate. They also believe that if they do BE every month during the next year, they will increase their chances of dying from breast cancer because cancer is fatal. Another concern is that if they complete BE monthly, they will increase their chances of requiring radical or disfiguring surgery if breast cancer occurs. Thus, breast cancer screening is perceived as a behavior that is inappropriate and risky due to the potential of finding cancer and the anticipated consequences of its diagnosis. The CHBM then gives meaning to the negative relationship between perceived Benefits and compliance with monthly BE performance found in Borrayo’s (1997) study.
In Borrayo’s (1997) study perceive Benefits from obtaining a mammogram was not a significant predictor of years since last mammogram above and beyond socioeconomic factors and health professional interventions, for either women born in Mexico or women born in the United States. However, the relationship between Benefits and mammography was also negative, which suggests that it is possible that women who perceived positive attributes related to mammography screening were less likely to screen. The Benefits items for mammography were worded similar to those of BE Benefits. Thus, the same cultural health beliefs about responsibility regarding BE screening (e.g., self-denial) may apply to mammography screening. Some Benefits items for mammography, however, were different. For example, “If I get a recommended mammogram, I will feel good about myself.”

According to the CHBM proposed in this study, beliefs about propriety of behavior can best explain why women of Mexican descent, especially those who are more traditional, would not feel good about themselves if they were to obtained a recommended mammography. For example, “female decency” beliefs that it is not proper to allow others to see and touch one’s body suggest that women would instead feel indecent. “Feeling indecent” further leads to strong abasing emotions such as embarrassment when women engage in breast cancer screening. These beliefs about propriety of female behavior may better explain why ‘perceived Benefits’ are seen more as ‘perceived costs’ for engaging in mammography screening. The same beliefs about “female decency” apply to BE screening since women are likely to “feel indecent” and wrong when they touch their body to perform BE.
Barriers. Refers to the perceived negative attributes related to breast cancer screening (Champion, 1990). It is proposed that perceived Barriers significantly discourage preventive behaviors (Rosenstock, 1988), however, findings for breast cancer screening behaviors have been mixed. Some studies (e.g., Zapka et al., 1989) have found that perceived Barriers are not strong predictors of breast cancer screening behaviors (CBE and mammography) of women of Hispanic descent. While others (e.g., Hyman et al., 1994) have found that perceived Barriers are predictors of mammography screening. Borrayo (1997) found that perceived Barriers to performing BE were significant predictors of monthly BE compliance for both women born in Mexico and women born in the United States, but more strongly for women born in Mexico. After adjusting for socioeconomic factors and health professional interventions, Barriers was significantly and negatively associated with BE compliance. That is, women who perceived negative attributes related to BE screening were less likely to screen. These findings corroborate the basic assumptions of the HBM in that, according to this model, perceived negative attributes would predict decrease compliance with breast cancer screening guidelines. In light of this study’s findings, the negative relationship between perceived Barriers and compliance with monthly BE performance is understandable and can be predicted for women of Mexican descent.

The CHBM suggests that ‘perceived Barriers,’ as defined by the HBM, may also be perceived as Barriers to performing BE by women of Mexican descent. For example, Champion’s (1991) HBM scale for BE Barriers included items such as: “I feel uncomfortable doing BE;” “Doing BE is embarrassing to me;” “Doing BE would be
unpleasant” and “It is hard to remember to do BE;” among others. This study found that women of Mexican descent who hold strong beliefs about “female decency” are likely to feel that it is uncomfortable and unpleasant to do BE because they are like to feel embarrassed about touching and seeing their body. The CHBM then supports the negative relationship between perceived Barriers and compliance with monthly BE performance found in Borrayo’s (1997) study.

In Borrayo’s (1997) study perceive Benefits from obtaining a mammogram was not a significant predictor of years since last mammogram above and beyond socioeconomic factors and health professional interventions, for either women born in Mexico or women born in the United States. However, the relationship between Barriers and mammography was also negative, which suggests that it is possible that women who perceived negative attributes related to mammography screening were less likely to screen. The Barriers items for mammography were worded similar to those of BE Benefits. Thus, the same cultural health beliefs about “female decency” may apply to mammography screening. Some Barriers items for mammography, however, were different. For example, “Having a mammogram usually costs too much money;” “Having a mammogram is painful;” and “Having a mammogram takes too much time.” All of these Barriers were mentioned by women during the focus group interviews. However, they were not included in the CHBM because these are perhaps “real” barriers to mammography screening, especially for women without economic resources and insurance. Pain and time are also real Barriers, including for non-Hispanic Caucasian women of low socioeconomic status (Farley & Flannery, 1989).
Confidence. Refers to the perceived ability to detect abnormal breast lumps through BE performance (Champion, 1990). It is proposed that perceived Confidence significantly encourages BE performance (Hershey, Morton, Davis, & Reichgott as cited in Hammond, 1994), however, this proposition has been tested mostly with non-Hispanic Caucasian women (Hammond, 1994). Some studies (e.g., Gonzales & Gonzales, 1990; Richardson et al., 1987) have develop scales to measure self-efficacy of BE among low-income Mexican American women. The self-efficacy construct is similar to that of perceived Confidence to perform BE. Gonzales and Gonzales (1990) have found that perceived efficacy to perform BE is significantly associated with correct BE performance and frequency of BE.

Borrayo’s (1997) study used Champion’s (1991) HBM scale to measure perceived Confidence to perform BE. Borrayo (1997) found that perceived Confidence to perform BE were significant predictors of monthly BE compliance for both women born in Mexico and women born in the United States, but more strongly for women born in Mexico. After adjusting for socioeconomic factors, health professional interventions, and all the other HBM constructs, Confidence was significantly and positively associated with BE performance. That is, women who perceived they had the ability to detect abnormal breast lumps through BE performance screening were more likely to screen. These findings corroborate the basic assumptions of the HBM in that, according to this model, perceived ability to perform a preventive behavior increase a person’s compliance with preventive guidelines. This study’s findings, may help to further understand the positive relationship between perceived Confidence and BE compliance. The CHBM
suggests that 'perceived Confidence,' as defined by the HBM, may be indeed perceived as confidence to perform BE by women of Mexican descent, which may further be influenced by women's "confianza" in their health care providers.

Borrayo's (1991) HBM scale for BE Confidence included items such as: "I know how to perform BE;" "When doing BE, I feel the area between my armpit and my breast;" "I am confident that I can perform BE correctly" and "I am sure of the steps to follow for doing BE;" among others. That is, the BE Confidence assess indirectly women's self-efficacy, which has further been found to be significantly associated with correct BE performance and frequency of BE (Gonzales and Gonzales, 1990). This may be because personal efficacy is essential to skillful performance of a health behavior due to the cognitive link between underestimation of abilities and poor performance (O'Leary, 1985).

Skillful performance of BE has been found to be influenced by health care providers instruction to women regarding how to perform BE, especially when individual tuition is provided (Clarke, Rassaby, White, & Hirst, 1991). In light of this study's findings, individual tuition may be particularly important to women of Mexican descent because personalized attention may not only increase their self-efficacy but may also encourage women to have "confianza" in their provider. Furthermore, women who develop "confianza" in their health care providers are more likely to follow the recommendations of their providers and perform BE more regularly. The CHBM proposes that 'perceived Confidence' may be mediated by women's "confianza" in their providers, thus, the importance of cultural sensitive interventions is supported.
The Cultural Health Belief Model and Acculturation

It has been proposed that the process of acculturation (Padilla, 1980) may change beliefs, attitudes and values about cancer and its early detection by screening tests (Perez-Stable et al., 1992). Accordingly, investigating beliefs about health and illness across levels of acculturation may help clarify cultural determinants of motivation to participate in screening and preventive health programs and to comply with recommended treatments (Castro et al., 1991). Among persons of Mexican descent, there is a wide spectrum across levels of acculturation in their acceptance of, and participation in traditional Mexican culture activities and health practices (Olmedo & Padilla, 1978).

Thus, it is important to understand the cultural health beliefs of women of Mexican descent regarding breast cancer and breast cancer screening across levels of acculturation. Women participated in five focus groups which differed significantly from one another in their average level of acculturation. Groups one, four, and five had a General Acculturation Index (AI) between 1.00 and 2.39 which was used as an indicator of lower level of acculturation. Groups two and three had an AI between 2.40 and 5.00 which indicated a higher level of acculturation (Baleazar, Castro, & Krull, 1995).

Overall, women in this study who hold more traditional health beliefs about causes (e.g., “un golpe,” breastfeeding), nature (e.g., fatal, shameful), and responsibility (e.g., acceptance) regarding breast cancer were observed to be born in Mexico and to be somewhat less acculturated (i.e., groups 1, 4, and 5). These findings are consistent with previous studies (Castro et al., 1991) that have found that women of Mexican descent who are least acculturated and most strongly identified with the Mexican culture, are
likely to have a system of health beliefs about illness in general which is more traditional, “non-Westernized.” Women who are more acculturated (i.e., groups 2 and 3) were less likely to say that they hold strongly traditional health beliefs about causes, nature, and responsibility of breast cancer.

The cultural health beliefs and behaviors of women of Mexican descent were observed to be influenced also by Western health beliefs regarding biological and behavioral causes of cancer (e.g., heredity, cigarette smoking) and beliefs about the nature of cancer (e.g., asymptomatic illness). Some women were also more willing to take responsibility (e.g., engaging in breast cancer screening) for finding out whether they had breast cancer rather than denying the possibility that they could develop it. Women expressed that they have acquired these beliefs mostly from health care professionals, from media sources such as newsprint, television, and radio, or from their own efforts to seek information. Women who expressed these Western health beliefs were not just those in the more acculturated groups (i.e., groups 2 and 3), although theirs were more accurate, but women in the less acculturated groups (i.e., groups 1, 4, and 5) also mentioned Western health beliefs. These findings do not support the proposition that low-acculturated persons do not believe in Western beliefs of cause-effect relationships and disease prevention (Noll & Spielberg, 1967). Instead, the present findings may be more consistent with recent studies (Castro et al., 1991) that have found that among women of Mexican descent the acceptance of cause-effect relationships might outweigh acceptance of traditional health beliefs, even across levels of acculturation.
In spite of differences in levels of acculturation between the groups, women in the five groups did not differ significantly in their breast cancer screening behaviors. Overall, there was no statistically significant relationship between acculturation and breast cancer screening behaviors, even though the sample was heterogenous on the acculturation measure. A larger sample and more statistical control may be needed to find a relationship between acculturation and breast cancer screening behaviors in a group of women that is heterogenous on acculturation. However, other studies have found conflicting results regarding the relationship between acculturation and cancer screening behaviors of Hispanic women. For example, Marks et al. (1987), found, after adjusting statistically for socioeconomic factors, that acculturation in older Hispanic women (55+ years old) was not associated with mammography, CBE or BSE. It is important to note also that the population in that study was extremely homogenous and low on the acculturation measure, with 80% (480 women) interviewed in Spanish.

In contrast, Borrayo (1997) found, after adjusting statistically for socioeconomic factors, that acculturation was a significant predictor of BSE and mammography for women of Mexican descent born in the United States who were heterogenous on the acculturation measure. Acculturation was not a significant predictor of BSE or mammography for women born in Mexico who were more homogenous and low on the acculturation measure. In light of the present findings, it may be that women born in Mexico are low on acculturation and more traditional in their cultural health beliefs regarding causes (e.g., breastfeeding), nature (e.g., symptomatic), and responsibility (e.g., self-denial) regarding breast cancer. For example, a woman of Mexican descent may
“feel healthy,” at the subjective and cognitive levels according to more traditional health beliefs, and does not engage in breast cancer screening behaviors because she does not perceive herself to be at risk of developing breast cancer. A more acculturated woman, with less traditional health beliefs and more accurate (due to education) and more Western health beliefs (e.g., prevention) about breast cancer and breast cancer screening, may be more likely to engage in breast cancer screening in spite of “feeling healthy” at the subjective level. Thus, the association and/or interaction of acculturation with traditional and Western health beliefs may help to better predict breast cancer screening behaviors than acculturation or cultural health beliefs alone.

One must be careful making interpretations regarding the relationship between breast cancer screening and psychosocial variables such as acculturation and health beliefs since these variables may be also confounded with socioeconomic variables. Women in the more acculturated groups also had higher levels of education and income. Caution should be taken to avoid investigating acculturation and socioeconomic factors apart from each other when attempting to understand breast cancer screening behaviors. This may be because socioeconomic factors and acculturation are usually highly correlated (Griffith & Villavicencio, 1985). Negy and Woods (1992) emphasize the importance for research involving acculturation to account for socioeconomic factors in order to delineate the factors’ specific influences on other variables. Most research has found socioeconomic factors to be more important than cultural or other factors in access to health care. Socioeconomic status also seems to constitute an important influence on how women perceive breast cancer (Saint-Germain & Longman, 1993).
The Cultural Health Belief Model in a Socioeconomic Context

Some authors have noted methodological problems in attempting to understand the confounding relationship between culture, socioeconomic status (SES), and psychological and physical health (Angel & Guarnaccia, 1989; Borrayo & Guarnaccia, 1997). These authors suggest the need to control for socioeconomic status in research involving ethnic minorities, by including SES as a variable or by using participants from the same SES group only. Betancourt and Lopez (1993) also argue that most ethnic minorities share a similar low SES, and controlling for this variable could remove some of the variance associated with ethnicity or vice versa. Therefore, these authors suggest that researchers should carefully assess the specific contribution of culture, ethnicity, and socioeconomic status to their findings.

This study controlled for the influence of SES on cultural health beliefs of women of Mexican descent by purposefully sampling participants at different levels of education and income rather than using participants from the same SES group. Women were mostly assigned to groups according to their level of education: low (second grade on but without a high school education); low to middle (sixth grade on but no more than high school), middle (with a high school education but no higher than college); and high (with a college education or higher). In an attempt to reflect the distribution of levels of education among the population of person of Mexican descent living in the United States, the groups selected were: two low level (i.e., groups 1 and 5), one low to middle group (i.e., group 4), one middle (i.e., group 3), and one high level group (i.e., group 2). As expected, the five groups were significantly different from each other in their average
level of education and income. Overall, education was positively and highly correlated with income.

Women who hold more traditional health beliefs about causes, nature, and responsibility regarding breast cancer were observed to be born in Mexico and to have lower levels of education and income (i.e., groups 1, 4, and 5). These findings are consistent with previous studies which have found that women of Mexican descent of lower social class living in rural (Clark, 1970; Rubel, 1960) and urban settings (Schreiber & Homiak, 1981) express traditional health belief about various illnesses and folk syndromes such as “mal de ojo” (evil eye) and “susto” (fright), among others. Women with higher SES (i.e., groups 2 and 3) indicated that they did not hold traditional cultural health beliefs themselves but expressed awareness that other women in their families did hold them, especially women such as their mothers and grandmothers who were older and with lower SES. However, women with higher SES acknowledged the influence that some cultural beliefs, in particular those regarding propriety of behavior, still have on their breast cancer screening behaviors. For example, women said that they dislike touching and exposing their bodies because they still feel it is “wrong” and embarrassing, although they have learned that this behavior is appropriate when it is done to maintain their health and performed by a trained professional.

Selecting women according to their level of education and income and placing them in homogeneous groups helped in this study to differentiate somewhat the influence of culture and SES on health beliefs. Other studies have been criticized (Farge, 1977; Weaver, 1973) for their use of unreliable participant observation methodology, for
overgeneralizations to all persons of Mexican descent based upon data from limited rural samples, and for the assumptions that observed beliefs and behaviors reflected "culture" when these may have been due predominantly to lower social class status.

Contrary to what was expected in this study, there were no significant differences in breast cancer screening behavior among the five groups, although the groups were significantly different in education and income. Overall, education and income were not significantly correlated with breast cancer screening behaviors as would be expected, especially for paid procedures such as CBE and mammography. Insurance coverage was significantly correlated only with mammography. Insurance was not significantly correlated with education or income. That is, women across levels of education and income performed breast cancer screening behaviors with similar frequency and recency.

It was observed, however, that women in groups (i.e., groups 2 and 3) with a higher average income and education had a tendency to perform BE with higher frequency during the past year than women with lower education and income (i.e., groups 1, 4, and 5). Women with higher education and income also had a tendency to report obtaining a mammogram and CBE more recently (fewer years since the procedures were last obtained) than women with lower education and income.

It is surprising that income and education (SES) are not associated with breast cancer screening behaviors, and that there are no differences in behaviors across groups since the five groups are significantly different from each other in SES levels. Most studies on the breast cancer screening behaviors of Hispanic women have shown that the lower rates of breast cancer screening are primarily associated with lower education and
lower income (Marks et al. 1990, Trevino et al., 1991). Borrayo (1997) found that women of Mexican descent age 50 plus who perform BE with lower frequency had significantly lower income and lower levels of education. With regard to mammography, women who had more years since they obtained their last mammogram had significantly lower income. No significant relationship was found between mammography and education. Although education has been found by other studies to be related to mammography, it makes sense that in order to obtain a mammogram, a woman, regardless of her education, has to have the necessary resources or coverage to afford such a screening procedure.

Borrayo (1997) also found differences in breast cancer screening behaviors among women of Mexican descent based on their place of birth. Women who were born in Mexico performed BE with less frequency during a 12 month period and had more years since they obtained their last mammogram than U. S. born women. Women also differed in their attained level education and annual personal income based on their place of birth. Women born in Mexico had less years of education and lower annual income. The present study likewise found differences in breast cancer screening behaviors, level of education, and annual income between women born in Mexico and women born in the United States. Women born in Mexico had more years since they obtained their last mammogram than women born in the U. S.; however, there were no significant differences in BE frequency or CBE recency. Women born in Mexico had fewer years of education and lower annual income than women born in the United States.

In addition, Borrayo (1997) found, using the Health Belief Model (Rosenstock, 1966) and the Multidimensional Health Locus of Control (Walston et al., 1978) concepts,
that women born in Mexico had a stronger belief in their perceived Susceptibility to
cancer and its Seriousness, a stronger belief in perceived Barriers to perform BE, and a
stronger belief in the role of Chance and Powerful Others than U. S. born women. The
present study found that women born in Mexico were more traditional in their health
beliefs about the causes, nature, and responsibility regarding breast cancer than women
born in the United States. Women born in Mexico were also observed to hold erroneous
Western health beliefs about causes of breast cancer more than did U. S. born women.
Thus, findings from this study and Borrayo’s 1997 study suggest that women of Mexican
descent born in Mexico have more preventive health disadvantages and thus appear to be
at greater risk for late-stage breast cancer diagnosis than U. S. born women.

Overall, women reported low rates of breast cancer screening behaviors. Only
23% of the sample reported performing BE twelve times a year, only 56% reported
obtaining a mammogram within the past year, and 64% reported obtaining a CBE within
the past year. Since in this study SES was not found to be significantly associated with
breast cancer screening but place of birth was, maybe differences in traditional health
beliefs could explain the lower rates of breast cancer screening among women of
Mexican descent better than differences in SES. The sample used in this study was
unique in that both women born in Mexico and women born in the U. S. were sampled
across levels of education, income, and acculturation. However, their breast cancer
screening behaviors were not significantly associated with any of these socioeconomic
factors. Nevertheless, the proposition that cultural health beliefs better explain the low
breast cancer screening rates needs to be test with a larger sample.
Recommendations for Breast Cancer Screening Interventions

This study proposes that the CHBM around the phenomena of "feeling healthy," as previously identified by Rose (1978), and "feeling indecent," is the culturally-based theoretical model that best explains the low rates of breast cancer screening among women of Mexican descent. According to the CHBM, women do not engage in breast cancer screening regularly, in part, because their cultural health belief system is not congruent with Western health beliefs in "prevention" of an unfelt illness. According to Western models (e.g., Health Belief Model; Rosenstock, 1966), preventive health behavior refers to any behavior directed to the prevention or detection of an illness (e.g., breast cancer) at the asymptomatic stage (Kassl & Cobb, 1966). Instead, the CHBM proposes that women of Mexican descent, due to their cultural health beliefs, are more likely to perceive breast cancer screening as a risky rather than preventive behavior. Thus, women of Mexican descent do not engage in breast cancer screening behaviors.

The CHBM does not deny socioeconomic and structural barriers that exist against breast cancer screening among women of Mexican descent, but it proposes a conceptual framework of psychological constructs and dynamics not previously identified and explained for this population. Accounting for these psychological variables can help modify breast cancer screening intervention programs for their successful implementation with these women. Prevention of breast cancer deaths through early screening remains an important goal for women of Mexican descent as the women have low 5-year survival rates, lower than non-Hispanic white women, mainly due to late breast cancer detection (Elder et al., 1991).
Since prevention of breast cancer deaths among women of Mexican descent is an important goal, it is important that health care professionals, educators and providers, learn more about cultural health beliefs and values in order to be successful in their breast cancer screening interventions programs. The following section will discuss some recommendations on how interventions programs, in light of this study’s most significant findings, can be modified and implemented for women of Mexican descent.

Health care professionals may intervene with women of Mexican descent, as well as with other Hispanic women, in culturally sensitive ways such as incorporating cultural health beliefs into the their intervention programs and by viewing culture as an enabler rather than a resistant force to successful interventions. Women participating in this study voiced the importance of viewing health care providers as people of trust. In general, trust, or “confianza,” is perceived by people of Mexican descent when the behavior of the health care professional is appropriate under cultural standards. By incorporating cultural health beliefs, health care professionals can inspire women’s “confianza.” When “confianza” takes place, compliance with health recommendations is very likely (Zea et al., 1997).

With regard to breast cancer screening interventions, health care professionals can gain their client’s “confianza” if they are sensitive to cultural beliefs about the propriety of behavior of both female patients and health care providers. Health professionals need to know that “female identity” and “female decency” beliefs about propriety of female behavior discourage women from engaging in breast cancer screening. Health professionals need to be aware that participating in screening leads women to “feel
indecent” which further causes them to feel extremely embarrassed and threatened by the possibility of losing their breast. It is mostly the anticipation of embarrassment that seems to discourage women from actively engaging in breast cancer screening.

Awareness of embarrassment as a deterrent to screening among women of Mexican descent, as well as other women of Hispanic descent, can assist educators modify their outreach programs. For example, the embarrassment of breast cancer screening could be acknowledged as a short-term sacrifice on the woman’s part in order to safeguard her health for her family’s sake in the long run (“familialism,” Zea et al, 1997). Education programs could incorporate other cultural values such as “respeto, sacrificio, ejemplo” (respect, sacrifice, and exemplary behavior; Solis et al., 1985) and “female commonality” but in novel ways. Older, well-respected women of the Hispanic community could be encouraged to set an example for other women by getting breast cancer screening themselves. This approach was successful for recruiting subjects to participate in the present study. Older women who were well respected in the community (e.g., church leaders) invited other women to participate in focus group discussions about breast cancer. This was the most successful approach to get community women of Mexican descent to participate in the groups.

Educational programs need to address in culturally sensitive ways the misconceptions women of Mexican descent have about the “causes” of breast cancer, even when these misconceptions are deeply rooted traditional health beliefs (e.g., “un golpe”). If the proposition that women use their cultural health belief system to decide whether they will participate in breast cancer screening is true, then it is expected that
women will make erroneous decisions to screen or not when they hold erroneous beliefs about the causes of breast cancer. For example, if women do not smoke cigarettes, consume alcohol or caffeine, have breastfed correctly, and/or have no family history of cancer, they are likely to “feel healthy” and believe that they are not at risk of developing breast cancer and thus, will fail to engage in breast cancer screening. Therefore, women of Mexican descent need to be better educated about known risk factors and erroneous risk factors of developing breast cancer. For example, women can be educated regarding factors most likely to put them at risk such as being over the age of 50 years and having physical conditions such as obesity (Cole & Amoateng-Adjepong, 1994). It is important that women understand that “feeling healthy” due to a healthy lifestyle or the lack of family history of breast cancer does not protect them from this illness (ACS, 1995).

Educational or intervention programs that promote breast cancer screening behaviors must acknowledge the cultural meanings of health and illness among women of Mexican descent. In light of this findings, cultural health beliefs about the nature of breast cancer are among the most influential beliefs on what it means to be healthy (“feel healthy”) and what it means to be ill or susceptible to illness. The belief that the nature of breast cancer is symptomatic is consistent with the cultural meanings or definitions of health and illness among persons of Mexican descent.

Health among persons of Mexican descent is defined mostly by the absence of pain, a well-fleshed body, and a high level of physical activity (Rose, 1978). If a person is not in pain or otherwise visibly affected by symptoms, then she is not ill. In the present study, women of Mexican descent said that feeling symptoms was the strongest indication
that they were no longer healthy. Some women indicated that it was only when they felt symptoms that they would consider engaging in breast cancer screening. Otherwise, they believed that if they were “feeling healthy,” they would be wasting their time, energy, and money, screening for an illness that was not there. Women explained that, for example, in Mexico people do not make it a habit to go to the doctor every year for a physical or any other screening procedure. Women acknowledged that economic resources are also scarce in Mexico but explained that the lack of resources was not a stronger barrier to screen because health care is basically free under the social security system in Mexico. Other women also said that even though they are covered by Medicare in the United States, they do not engage in breast cancer screening because it seems foolish to them to screen for an illness that is not felt. Thus, educational or intervention programs need to seriously address cultural health beliefs that may function as barriers to regular breast cancer screening as recommended by screening guidelines.

Intervention programs need to address also the personal and interpersonal meanings of having breast cancer that derive from other cultural health beliefs about the nature of breast cancer. Since breast cancer is by nature a fatal, shameful, and contagious illness, women anticipate distress, shame, and stigma from having breast cancer. A culturally sensitive approach to address the personal and interpersonal meanings of having breast cancer could be using cultural values such as “interdependence” and “connectedness” (Garcia & Zea, 1997). Small group discussions about the importance of regular breast cancer screening could also discuss the meanings associated with having breast cancer and how to overcome them for the sake of “feeling healthy.” For example,
using small, kin-based or church-based groups (Israel, 1985) lead by an older woman who have first hand experience with breast cancer, can be used to allow women of Mexican descent, opportunity to work through the personal and interpersonal meanings of breast cancer, rather than to simply focus on the technical aspects, manifestations, and treatments of the illness. With regard to breast cancer screening, giving women the knowledge and reassurance that they can detect breast cancer, that it can be treated, and that there is life after breast cancer are important topics to discuss in the group.

Intervention programs also need to address issues of responsibility regarding breast cancer and breast cancer screening. Although it may be difficult to address macroscopic beliefs about life (e.g., “just world” beliefs, “God’s will”), other beliefs about personal responsibility must be addressed. Self-denial towards the possibility that one could develop breast cancer must be recognized and it’s underlying assumptions and implications need to be discussed. Due to the personal and interpersonal feelings that the possibility of breast cancer arouses, especially in relation to significant others, women could be encouraged to participate in breast cancer screening by having a relative remind and accompany them when they go for screening (e.g., daughters, sisters). To accomplish obtaining social support towards breast cancer screening, it is important that health care providers explain to all family members, preferably together, rather than to the woman alone the importance of preventive screening in preserving the woman’s “health,” for her own sake and for the sake of the family. Women and their families also need to be educated about screening techniques and health care services to access them.
Directions for Future Research

Part of the problem regarding lack of success with breast cancer intervention programs, has been that in an attempt to help health care educators and providers encourage preventive behaviors in their ethnic minority patients, information given to these professionals has been obtained from inadequate research. For the most part, research done with Hispanic women has lacked adequate theoretical models, research methods, and supporting data to understand the psychological factors that influence the breast cancer screening behaviors of women, in particular of women of Mexican descent. For example, most research has been done using theoretical models developed from a Western health beliefs perspective and then tested through inadequate methods (Borrayo, 1997) with a heterogenous group of Hispanic women. That is, the assumption behind this research and its finding is that the psychological dynamics and behaviors of Hispanic women can be understood from an “etic system” of health beliefs rather than from an “emic system” (Dana, 1993, p. 71).

It is necessary to recognize that an emic or culturally-based health belief model, such as the CHBM, may be a better theoretical model for guiding research on the breast cancer screening behaviors of women of Mexican descent than etic Western models. Thus, future research on the breast cancer screening behaviors of women of Mexican descent should be done using appropriate theoretical models. The CHBM is an initial attempt to provide a guiding model for future research. There is a need, however, to conduct more research on the model itself. The following section discusses some aspects of the CHBM that need to be further tested to complete grounding its theory.
Triangulation remains an important methodological goal to increase the validity and reliability of the CHBM. Although Salazar’s (1996) and Saint-Germain and Longman’s (1994) findings were used for triangulation across data sources for the model developed in this study, quantitative methods would complete grounding the theory. For example, the validity of the focus group data could be measured by how closely it correlates to data obtained by other methods of data collection, such as written surveys (Ward, Bertrand, & Brown, 1991). If similar results are produced, this would strengthen the findings of both grounded theory methods and quantitative methods through triangulation.

The CHBM can be further strengthened by integrating it into a scale or questionnaire and testing it with a greater number of women of Mexican descent. The questionnaire can provide items built from the categories identified through the paradigm model (conditions-> phenomenon-> context-> intervening conditions-> action strategies-> consequences). To illustrate this suggestion, an item could read:

If I could get (condition) breast cancer (phenomena) after age 50 (context), I:

a) Would avoid finding out (strategy) because I would rather not know (intervening conditions/responsibility for the illness) that I may die of cancer.

a) Accept it (strategy) because cancer is a fatal illness (intervening conditions/nature of the illness), and prepare for death.

b) Visit my doctor annually for a CBE (strategy) because cancer can be detected on time and treated medically (intervening condition/health belief) to avoid death.

Each item can be given a numerical score to yield quantitative data. A more
A culturally appropriate psychometric method will probably be needed since older women of Mexican descent seem to have difficulty answering a questionnaire with items that use a Likert-type scale (Borrayo & Guarnaccia, 1997a), or by modifying the questionnaires structure (e.g., yes, no, don’t know).

The data can then be analyzed through quantitative methods. There is a need for future studies to measure whether women differ in their cultural health beliefs, within the traditional to Western health beliefs continuum, based on their levels of education and income. Studies could also investigate whether cultural health beliefs, as proposed by the CHBM, predict breast cancer screening behaviors above and beyond socioeconomic status. Furthermore, studies could be done to understand the interaction between cultural health beliefs and SES, and the contribution of this interaction to the breast cancer screening variance. For example, through multiple regression one can statistically account for sociodemographic variables and health professional interventions, in order to investigate how much cultural health beliefs contribute to the breast cancer screening variance above and beyond the previously accounted variables and to detect any significant interactions. Thus, quantitative testing of the CHBM would support the model’s validity and generalizability. The accumulation of evidence through repeated investigation by other studies would further strengthen the model. In addition, the CHBM can be tested and compared to the more often used health belief models (e.g., Health Belief Model; Rosenstock, 1966) to predict the breast cancer screening behaviors of women of Mexican descent. This endeavor may further support the proposed superiority of the CHBM over other models that are not culturally grounded.
Limitations

The methodological limitations of this study suggest that caution should be taken in interpreting and extending this study’s findings. First, all the data were obtained by self-report from a selected urban population of women of Mexican descent. The accuracy of self-report data through focus group methodology has been questioned (May & Foxcroft, 1995). May and Foxcroft point to the bias in self-reports on health beliefs and behaviors that is introduced by the respondents’ prior assumptions about the interviewer’s expectations. Among the biases in self-reports is the “politeness phenomena” or perceptions of how what participants believe internally will be interpreted by the actual and potential audience. For example, a woman participating in the FGIs could have been concerned about disappointing the interviewer and/or other women in the group if she voiced her lack of motivation to participate in breast cancer screening and her fear of getting a breast cancer diagnosis. However, women did voice ‘undesirable’ behaviors anyway.

Ross and Mirowsky (1984) found that Hispanics tended to answer in ways they perceived to be correct, regardless of their behavior or experience of the question content. These types of responses are particularly found among low-income Hispanics and can be interpreted as the deferential responding of persons of lower socioeconomic status. In this study, 20 (58%) out of the 34 participating women were of lower socioeconomic status (U. S. Bureau of the Census, 1995). These twenty women were in three groups that were somewhat homogeneous in sociodemographic variables. There were, however, differences in opinion and knowledge among women in the groups regarding health
beliefs and breast cancer screening. It is possible that some women, especially those in
the low SES groups, tended to agree with and to give similar answers to those of women
whom they perceived to be correct. Similarly, in the questionnaire women could have
reported performing breast cancer screening behaviors as they perceived was correct and
expected of them. Thus, measures of breast cancer screening behaviors may not be
accurate reflections of their actual behaviors.

A second limitation of this study is that specific questions about knowledge of
breast cancer screening techniques and their importance were not assessed in this study.
Previous research has found a strong relationship between knowledge of breast cancer
screening techniques and breast cancer screening behavior (Price, 1994). Most women in
this study expressed awareness that breast cancer screening techniques existed and said
that they were important; however, some did not know that they were important for early
breast cancer detection. Although knowledge was not measured nor were women directly
asked about their knowledge, it was observed that there was variability among women
within and across the five groups with respect to their knowledge and accuracy of their
knowledge about breast cancer screening techniques (e.g., appropriate age for
mammography, risk of radiation). Nevertheless, knowledge remained an important
variable to assess in this study in order to obtain more reliable findings to make more
precise generalizations to women of Mexican descent living in the United States.

Due to initial commitments to not further contact the women after their
participation in the study, and due to time constraints and budget limitations, it was not
possible to check the validity of the theory with the informants who supplied the original
data. It would have been ideal to mail a summary of the theory ("feeling healthy") to the women who participated in the FGIs asking them to provide feedback on the accuracy and fitness of the theory to their beliefs and experiences. That is, women would have been asked if the theory explains how their cultural health beliefs about breast cancer and breast cancer screening impact their breast cancer screening behaviors. Validating the theory with the informants would have helped to further complete grounding the theory. Thus, this validation remains an important goal for future research on the cultural health belief model proposed here.

Because non-probability, purposive sampling was used with focus group methodology, the findings from this study may not be generalizable to larger groups. Thus, finding from this study are limited to women living in the urban cities where they were interviewed rather than to a larger group of women of Mexican descent living in the United States. Testing of the CHBM with larger samples throughout the U. S. States and in different settings (urban vs. rural) would be needed to strengthen its generalizability.

**Contributions**

The present study provides a valuable contribution to the scarce literature on the breast cancer screening behaviors of Hispanic women. A limited number of studies have attempted to understand the psychosocial factors that contribute to the low rates of breast cancer screening of Hispanic women in general. Of these studies, few have specifically investigated women of Mexican descent. This study contributes to the literature by proposing a theoretical model to understand how cultural health beliefs impact the breast cancer screening behaviors of women of Mexican descent age 50 and older. More
specifically, the model explains how cultural health beliefs about breast cancer illness and breast cancer screening techniques interact and influence the breast cancer screening behaviors of women of Mexican descent.

Furthermore, the CHBM developed in this study contributes towards the efforts of preventing breast cancer deaths among women of Mexican descent by providing an explanation of the influence of culture on behavior to help health care professionals develop more effective health promotion interventions with this population of women. Historically, health promotion efforts to encourage breast cancer screening have in general failed to succeed with the Hispanic population. This may be because scant attention has been given to understand the beliefs Hispanic individuals have about what constitutes or means to be healthy and what constitutes or means to be ill within their cultural context (Zea, Quezada, & Belgrave, 1997). Understanding cultural meanings of health and illness is important because these beliefs appear to influence or mediate health related behavior and illness outcomes (Landrine & Klonoff, 1993). Failing to consider cultural health beliefs is likely to result in prevention and intervention programs that will not succeed.

Thus, the cultural health belief model proposed in this study appears to be helpful for the creation of culturally sensitive interventions to increase the breast cancer screening behaviors of women of Mexican descent as recommended by the ACS. Increasing the low rates of screening behaviors among women of Mexican descent may in turn contribute to the early diagnosis of breast cancer and decrease the high rates of breast cancer death in this population of Hispanic women.
APPENDIX A

LETTER OF INVITATION TO FOCUS GROUP
Dear Participant,

Thank you for accepting our invitation to attend the discussion at [place] in [city] on [day], [date]. The [place] is on [directions]. We would like you to be our guest for a typical Mexican snack which will begin at [time]. The discussion will follow the snack and conclude at [time].

Since we are talking to a limited number of people, the success and quality of our discussion is based on the cooperation of the people who attend. Because you have accepted our invitation, your attendance is anticipated and will aid in making the research project a success.

The discussion you will be attending will be a forum of women of Mexican origin in the community of [name]. We will be discussing what women of Mexican origin think about health and illness or disease, especially breast cancer. Our aim is to help professionals assist women like you to stay healthy. Your assistance, by participating in this group’s discussion, will be greatly appreciated. This is strictly a research project approved by the University of North Texas, and no sales or solicitation will be made. At the conclusion of the session we will be giving you a canvas tote bag [and $10 cash] of our appreciation.

If for some reason you find you are not able to attend, please call us to let us know as soon as possible. Our phone number is (940) 591-1478.

We look forward to seeing you on [date].

Sincerely,

Evelinn A. Borrayo, M.A.
Forum Moderator
APPENDIX B

INFORMED CONSENT IN ENGLISH
Informed Consent to Participate in University of North Texas Focus Group Discussion on Women's Health

I, ____________________________, agree to participate in this study to discuss what women of Mexican origin think about health and illness, especially breast cancer. I am aware that this is a research project conducted by the University of North Texas.

As a participant in a group discussion, I understand that my comments will be audio-taped. I have been informed that any information obtained in this study will not be linked to my name. At the conclusion of this study the audio-tapes will be destroyed. Under this condition, I agree that any information obtained from this research study may be used in any way thought best for publication or education.

I understand that there is no personal risk or discomfort directly involved with this research study, in fact, it may help me think more about my health. I also understand that I am free to withdraw my consent and discontinue participation in the group discussion at any time. A decision to withdraw from the study will not affect the services available to me or my participation in _______ [name of community center, home, or church where group meetings will be held] ______.

If I have any questions or problems that arise in connection with this study, I may contact the researcher, Evelin A. Borrayo at (940-565-3289) or Dr. Sharon Rae Jenkins, the faculty supervisor, at the University of North Texas Department of Psychology (940-565-4107). If I have problems with this study, I may also contact the University of North Texas Committee for the Protection of Human Subjects (940-565-3940).

(Date) ________________  ________________________________
(Signature of Participant)

(Date) ________________  ________________________________
(Investigator)
APPENDIX C

INFORMED CONSENT IN SPANISH
Información Para Concentrar Participar en la Discussion de Grupo sobre la Salud de la Mujer de la Universidad del Norte de Texas

Yo, ____________________________, acepto participar en este estudio para discutir que piensan las mujeres de origen Mexicano sobre la salud y enfermedad, especialmente del cáncer del seno. Yo estoy conciente que este es estrictamente un proyecto de investigación conducido por la Universidad del Norte de Texas.

Como participante en la discusión de grupo, yo entiendo que mis comentarios serán audio-grabados. Yo he sido informada que cualquier información obtenida en este estudio no será ligada a mi nombre. Al concluir este estudio los audio-cassettes serán destruidos. Bajo esta condición, yo acepto que cualquier información obtenida en este estudio de investigación sea usado de la manera que se piense mejor para publicación o educación.

Yo entiendo que no hay ningún riesgo o molestia directamente relacionado con este estudio de investigación, de hecho, me puede ayudar a pensar más en mi salud. Yo también entiendo que soy libre de retirar en cualquier momento mi consentimiento y descontinuar mi participación en la discusión de grupo. La decisión de retirarme de este estudio no afectará los servicios disponibles a mí ni mi participación en ________ [nombre de el centro, hogar, iglesia comunitario donde se llevaran a cabo las reuniones].

Si yo tengo preguntas o problemas que surjan en conexión con este estudio de investigación, yo puedo contactarme en español con la investigadora de este estudio, Evelin A. Borrayo (94-565-3289) o en inglés con la Dra. Sharon Rae Jenkins, supervisora de este estudio al Departamento de Psicología de la Universidad del Norte de Texas (940-565-4107) o en con la Dra. Beatrice Treviño al teléfono (512-936-1656). Si yo tengo algún otro problema con este estudio de investigación, también puedo contactar al Comité de Protección de Sujetos Humanos de la Universidad del Norte de Texas (940-565-3490).

_________ (Fecha) ___________________________________________ (Firma del Participante)

_________ (Fecha) ___________________________________________ (Investigador)
APPENDIX D

QUESTIONNAIRE (ENGLISH)
University of North Texas Research on Women's Health

The following information helps us to analyze the research and is totally confidential. Thank you.

SECTION I

Please answer all the questions. Answer based on what you really believe and do, not what you think you should do or what a doctor or nurse would want you to do. Thank you for your time.

Please circle one answer:

1. Have you ever been diagnosed as having any type of cancer? Yes  No
   1a. If you circled yes, what type of cancer?

2. Has any blood relative of yours ever had breast cancer? Yes  No
   2a. If you circled yes, what relative?

3. Has a doctor or nurse taught you how to examine your breasts? Yes  No

4. Have you examined your breasts in the past month? Yes  No

5. How many times have you examined your breasts in the past year? 0  1-2  3-5  6-9  10-12

6. When was your last mammogram? Last year  2 years ago  3 years ago  More than 3 years ago  Never had one

7. When was your last Pap Smear? Last year  2 years ago  3 years ago  More than 3 years ago  Never had one

8. How often do you consult a doctor for a physical exam?

9. Has a doctor recommended for you to have a mammogram every year?

10. Approximately how many times have you had a mammogram in your life?

11. Approximately how old were you when you had your first mammogram?

SECTION II

1. Your age? [Years]

2. Your current marital status? [Circle one]

3. Where did you do most of your schooling? Mexico  or  USA

4. Place an 'X' in the box that best described the highest level of education you completed:

<table>
<thead>
<tr>
<th>Grade School</th>
<th>High School</th>
<th>College</th>
<th>Post Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  2  3  4  5  6  7  8  9  10  11  12  1  2  3  4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Are you now employed? Yes  No  or retired? Yes  What is/was your occupation?

6. Do you have: Medicare? Yes  Private insurance? Yes  No health insurance coverage? Yes

7. Circle the range that best describes the total annual income from all sources for yourself:
   Less than $5,000  $5,001-$10,000  $10,001-$20,000  $20,001-$40,000  More than $40,000
SECTION III

Please answer the following questions only if you are Mexican-American (or Mexican). Circle only one answer.

1. Do you speak—>
   - Only Spanish
   - Spanish better than English
   - Both Spanish and English equally well
   - English better than Spanish
   - Only English

2. Do you read—>
   - Only Spanish
   - Spanish better than English
   - Both Spanish and English equally well
   - English better than Spanish
   - Only English

3. Was your early life [childhood and teenage years] spent in—>
   - Only in Mexico
   - Mostly in Mexico
   - Equally in Mexico and the USA
   - Mostly in the USA
   - Only in USA

4. Is your current circle of friends—>
   - Almost all Hispanics/Latinos
   - Mainly Hispanics/Latinos
   - Equally Hispanics & Non-Hispanics from the U.S.A.
   - Mainly Non-Hispanics from the U.S.A.
   - Almost all from USA

5. In relation to having an Hispanic/Latino background, do you feel—>
   - Very Proud
   - Proud
   - Somewhat Proud
   - Little Pride
   - No Pride

6. Place an 'X' in the box that answers the following questions:

<table>
<thead>
<tr>
<th>Where were you born?</th>
<th>U.S.A.</th>
<th>Mexico</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where was your mother born?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where was your mother's father born?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where was your mother's mother born?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where was your father born?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where was your father's father born?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where was your father's mother born?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your time in helping us understand how women think about breast cancer and health!

________________________________________ Date __/__/____

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APPENDIX E

QUESTIONNAIRE (SPANISH)
Investigación sobre la Salud de la Mujer de la Universidad del Norte de Texas
La siguiente información ayuda a analizar esta investigación y es totalmente confidencial.

SECCIÓN I

Por favor conteste todas las preguntas. Responda de acuerdo con lo que usted realmente piensa y hace. No responda pensando en lo que debería hacer, o en lo que su médico o enfermera quisiera que usted hiciera. Gracias por su ayuda.

Encierre su respuesta en un círculo

1. ¿Ha sido usted alguna vez diagnosticada con algún tipo de cáncer? SI NO
   1a. Si responde SI, ¿qué tipo(s) de cáncer?

2. ¿Ha sido alguna parienta suya diagnosticada con cáncer del seno? SI NO
   2a. Si responde SI, ¿qué parentesco tiene con usted?

3. ¿Le ha enseñado el doctor o una enfermera como examinarse sus senos? SI NO

4. ¿Se examinó usted los senos el mes pasado? SI NO

5. ¿Cuántas veces se examinó usted los senos el año pasado? 1.-2 3-5 6-9 10-12

6. ¿Cuándo fue su último mamograma? Hace 1 año 2 años 3 años 3 años uno

7. ¿Cuándo fue su último Papanicolau? Hace 1 año 2 años 3 años 3 años uno

8. ¿Qué cuántos años tiene? __________

9. ¿Qué cuántos años tiene? __________

10. ¿Aproximadamente cuántos mamogramas se ha hecho tomar en su vida? __________

11. ¿Aproximadamente cuántos años tenía cuando se hizo tomar su primer mamograma? __________

SECCIÓN II

1. ¿Cuántos años tiene? __________

2. ¿Cuál es su actual estado civil? (por favor encierre su respuesta en un círculo).
   Soltera Casada Divorciada Separada Co-habitante (vive con pareja) Viuda

3. Donde curso usted la mayor parte de su educación? Mexico __ o U.S.A. __

4. Por favor ponga una 'X' en el cuadro que mejor describa el nivel más alto de educación que usted completo.

<table>
<thead>
<tr>
<th>Primaria</th>
<th>Secundaria</th>
<th>Técnico/Vocacional o Universidad</th>
<th>Postgrado</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 4+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Usted __________

5. ¿Está usted actualmente trabajando? __ o retirada? __ Cual es/fue su ocupación? __________


7. Encierre en un círculo la serie que mejor describa el ingreso total por año de su familia:
   Menos de $5,000 $5,001-$10,000 $10,001-$20,000 $20,001-$40,000 Mas de $40,000
SECCION III

Por favor conteste las siguientes preguntas, solo si es Mexican-American(o Mexican). Círcule solamente una respuesta.

1. Usted habla---->  
Sólo español  Español mejor que inglés  Español e inglés igualmente bien  Inglés mejor que español  Sólo inglés

2. Usted lee---->  
Sólo español  Español mejor que inglés  Español e inglés igualmente bien  Inglés mejor que español  Sólo inglés

3. Pasó su edad temprana[niños y adolescencia] en---->  
Sólo en México  La mayor parte en México y en U.S.A.  Igualmente en México y en U.S.A.  Principalmente en USA  Sólo en U.S.A.

4. Actualmente su círculo de amigos es ---->  
Casi todos son Latinos  La mayoría son Latinos  Igualmente Hispeanos y anglos de U.S.A.  La mayoría son anglos de U.S.A.  Casi todos anglos de U.S.A.

5. Tener origen hispano o latino hace que usted se sienta ---->  
Muy orgullosa  Orgullosa  Algo orgullosa  Poco orgullosa  Nada orgullosa

6. Marque con una 'X' el cuadro que conteste las siguientes preguntas:

<table>
<thead>
<tr>
<th>Dónde nació usted?</th>
<th>U.S.A.</th>
<th>México</th>
<th>Otro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dónde nació su madre?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dónde nació su abuelo de parte de su madre?</td>
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</tr>
<tr>
<td>Dónde nació su abuela de parte de su madre?</td>
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<tr>
<td>Dónde nació su padre?</td>
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<tr>
<td>Dónde nació su abuelo de parte de su padre?</td>
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</tr>
<tr>
<td>Dónde nació su abuela de parte de su padre?</td>
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</tbody>
</table>

Gracias por ayudarnos a comprender qué piensan las mujeres acerca del cáncer del seno y de la salud! ________________________________ fecha ___/___/___
REFERENCES


Sandavol, M. C., & de la Rosa, M. C. (1986). A cultural perspective for serving the Hispanic client. In H. P. Lefley & M. C. Pedersen (Eds.), *Cross-Cultural Training for*
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