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The relationship between health attitudes, beliefs, health locus of control and use of breast cancer screening modalities in elderly Hispanic women

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**THE RELATIONSHIP BETWEEN HEALTH ATTITUDES, BELIEFS,
HEALTH LOCUS OF CONTROL AND USE OF BREAST
CANCER SCREENING MODALITIES
IN ELDERLY HISPANIC WOMEN**

A Thesis

by

DEBRA KAY GILLETT

ROSAMARIA ORTIZ

**A Cluster Research Study
Submitted to the Graduate School of the
University of Texas-Pan American
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE IN NURSING**

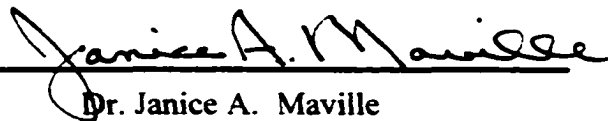
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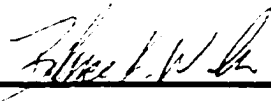
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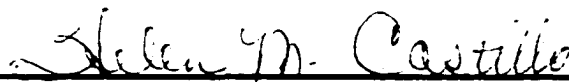
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Gillett, D. K., & Ortiz, R., The Relationship Between Health Attitudes, Beliefs, Health Locus of Control and Use of Breast Cancer Screening Modalities in Elderly Hispanic Women. Master of Science in Nursing (MSN), May 2000, 83 pp., 10 tables, references, 62 titles.

A non-experimental design was used to examine the relationship between health attitudes, beliefs, locus of control and the use of breast cancer screening modalities in elderly Hispanic women in this pilot study. Leininger's Theory of Culture Care Diversity and Universality and the Health Belief Model were the supporting theoretical frameworks. Research was conducted at the *Amigos del Valle* senior centers in Hidalgo County and included 52 English-speaking elderly Hispanic volunteer participants. Instruments used for data collection were the Health Care Attitudes and Beliefs Scale and the Multidimensional Health Locus of Control Scale. Results of this study revealed that there appears to be a relationship between age and an attitude of fatalism in elderly Hispanic women and the use of breast cancer screenings by elderly Hispanic women. Recommendations for further research regarding cultural congruent care among elderly Hispanic women are given.

DEDICATION

To the victims and survivors of breast cancer.

ACKNOWLEDGEMENTS

Our Families

Dr. Janice A. Maville

Dr. Bruce Wilson

Dr. Barbara Tucker

Amigos del Valle

Dr. Juan Gonzalez

ACKNOWLEDGMENTS

To my beloved husband Louis who has always supported my educational endeavors and always persevered. To my parents Severita and Domingo Rendon who gave me the gift of faith. My gratitude to Soccoro and Louis Z. Ortiz for their prayers and love. To my children, Marisol, Louis, and Carolina who helped by providing me with a constant sense of humor and encouragement. To Joel Valentin and Gabriel Andres; may their future be joyful and bright. Thank you Raw Power and Light for the love, support, energy and humor. For the best sister whose presence and love was strongly felt from afar.

Rosa

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Debbie

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CHAPTER I

INTRODUCTION

The breast is the second most common site of cancer among women, and breast cancer is second only to lung cancer as the leading cause of cancer deaths among women in the United States (American Cancer Society, 1999; Dambro, 1997; Tierney, McPhee, & Papadakis, 1998). In 1999 nearly 50,000 women were expected to die in the United States from breast cancer (American Cancer Society, 1999; Dambro, 1997; Tierney et al., 1998). In Texas mortality rates for breast cancer were 18.5 per 100,000 in 1997 (Texas Department of Health [TDH], 1999). In Hidalgo County in southern Texas, female breast cancer mortality rates were 21.0 per 100,000 and accounted for 51 deaths in 1997 (TDH, 1999).

Research studies indicate that mortality rates for breast cancer vary by race and ethnicity (American Cancer Society, 1999; Balcazar, Castro, & Krull, 1995). Blacks and non-Hispanic whites are the ethnic groups most studied regarding breast cancer, with gaps in data concerning Hispanics and other minorities (Ruiz & Caban, 1995).

According to the American Cancer Society (1999), biomedical, epidemiological, and behavioral research is needed to improve the understanding of the impact of cancer

on minority groups. The National Institute of Health has required inclusion of minorities, including Hispanics and women, in study populations due to the dearth of research in these groups (Ruiz & Caban, 1995).

Hispanic women have been shown to have a lower occurrence of breast cancer than non-Hispanic white women, but more often result in a poor prognosis for survival (Bentley, Delfino, Taylor, Howe, & Anton-Culver, 1998; Longman, Saint-Germain, & Modiano, 1992; Salazar, 1996). The poor prognosis for survival in Hispanic women may be related to diagnosis of breast cancer at a later stage than non-Hispanic whites (Bentley et al., 1998).

The incidence of breast cancer increases with age (Lierman, Young, Powell-Cope, Georgiadou, & Benoliel, 1994; Tierney et al., 1998; Uphold & Graham, 1998).

According to the Report of the United States Preventive Services Task Force (1996), incidence of breast cancer increases from 127 cases per 100,000 for women aged 40-44 to 229 per 100,000 for women aged 50-54, 348 per 100,000 for women aged 60-64, and 450 per 100,000 for women aged 70-74. Women over the age of 50 account for more than 70% of new diagnoses of breast cancer (Lierman et al., 1994). Older women tend to have more advanced stages of breast cancer at the time of diagnosis (Lierman et al., 1994). Research has shown patients between 55 and 64 years of age have a 50% higher probability of distant metastasis at diagnosis compared with younger women (American Cancer Society, 1999; Lierman, Kasprzyk, & Benoliel, 1991; Lierman et al., 1994).

Mammography, clinical breast examination (CBE), and breast self-examination (BSE) are three screening modalities employed in the discovery of early stage tumors (American Cancer Society, 1999; Budden, 1998; Champion, 1990; Fletcher, O'Malley,

Earp, Morgan, Lin, & Degnan, 1990). Breast cancer screenings may identify cancers at an earlier and more treatable stage (Schrag, Kuntz, Garber, & Weeks, 2000).

Barriers to the use of BSE, CBE, and mammography by women in general have been attributed to a lack of knowledge, social influences, lack of confidence, attitude towards breast cancer, perceived susceptibility to breast cancer, seriousness of breast cancer, and lack of health motivation (Champion, 1990; Nettles-Carlson, Field, Friedman, & Smith, 1988). Hispanic women face additional barriers related to the lack of culturally-congruent health care, language barriers, distance to health care, lack of available health care or health care funding, education, a fatalistic attitude, and fears of cancer diagnoses (Bakemeier, Krebs, Murphy, Shen, & Ryals, 1995; Bentley et al., 1998; Hubbell, Chavez, Mishra, Magana, & Valdez, 1995; Longman et al., 1992; Mishra et al., 1998). Elderly women experience lack of dexterity, reduced range of motion, and decreased tactile ability that creates difficulties performing breast self-examination (Baulch, Larson, Dodd, & Deitrich, 1992).

In summary, breast cancer is a serious concern for elderly Hispanic women, given that their mortality rates from breast cancer are greater than that of non-Hispanic white elderly women. Although it has been shown that Hispanic women utilize screenings for breast cancer with less frequency than their non-Hispanic white counterparts, the variables that affect use of breast cancer screening modalities are not well understood. Furthermore, there is a paucity of research regarding elderly Hispanic women and variables affecting the use of breast cancer screening modalities.

Purpose of the Study

The purpose of this study was to discover if there is a relationship between health attitudes and beliefs, locus of control, and the use of breast cancer screening modalities by elderly Hispanic women. Champion (1990) stated that knowledge about variables that influence the practice of breast cancer screening modalities is needed so that interventions to increase this behavior can be developed.

Hypotheses

The hypotheses for this study were: (a) There is a relationship between health attitudes and beliefs and adherence to breast self-examination (BSE), clinical breast examination (CBE), and mammography among elderly Hispanic women and (b) There is a relationship between locus of control and use of breast cancer screenings in elderly Hispanic women.

Significance of the Problem

In order to promote early detection of breast cancers, the American Cancer Society has recommended that women utilize all three breast cancer screening modalities: breast self-examination, clinical breast examination, and mammography (American Cancer Society, 1999). Hispanic women and elderly Hispanic women remain significantly behind other ethnic and racial groups in the use of BSE, CBE, and mammograms (Hubbell et al., 1995; Navarro et al., 1995). Nurses face the challenge to teach and motivate elderly Hispanic women to utilize BSE, CBE, and mammograms within a culturally based construct (Hubbell et al., 1995).

The goal of this study was to identify health beliefs and attitudes of elderly Hispanic women and their use of breast cancer screening modalities. This knowledge

may allow nurses to design interventions to increase the use of breast screenings by elderly Hispanic women. Being aware of the cultural influence on health practices may allow nurses to influence the use of breast cancer screenings by this population and may have an impact in decreasing mortality rates.

Definitions

1. **Hispanic:** A subject who self-reports to belong to this ethnic group (Perez-Stable, Hiatt, Sabogal, & Otero-Sabogal, 1995).
2. **Elderly:** Persons over 60 years of age (LeFrancois, 1993).
3. **Health beliefs:** Perceptions that influence health care behaviors (Bundek, Marks, & Richardson, 1993).
4. **Attitudes:** Any of the major integrating forces in the development of personality that give consistency to the behavior of an individual and dictate convictions about good or bad, right or wrong, desirable or undesirable (Bundek et al., 1993).
5. **Health Locus of Control:** Degree to which a person believes his or her actions are responsible for health or illness (Frank-Stromborg & Olsen, 1997).
6. **Breast cancer screening modalities:** Methods of detecting breast cancer that include: Breast self-examination, clinical breast examination, and mammogram.
7. **Breast self-examination:** Monthly inspection and palpation of one's breasts to become familiar with the usual appearance and feel of breast tissue in order to detect changes that may be indicative of breast cancer (American Cancer Society, 1995; Seidel, Ball, Dains, & Benedict, 1991).

8. **Clinical breast examination:** Breast examination performed by a trained health professional for the purpose of assessing breast tissue for early signs that may be indicative of breast cancer (American Cancer Society, 1995).
9. **Mammography:** Use of low dose x-rays to visualize the internal structure of breast tissue for diagnosis of breast cancer (American Cancer Society, 1995).

Assumptions

Five assumptions were identified for this study. They were as follow:

1. All subjects understood the questions and answered truthfully.
2. Those who assisted subjects in completing questionnaires did not bias responses.
3. The instruments were appropriate to the elderly Hispanic population.
4. All subjects understood the explanation of the three breast cancer screening modalities.
5. Subjects were representative of the population under investigation.

Limitations

Limitations for this pilot study included six areas recognized by the researchers. The limitations were as follow:

1. The small sample size limited extensive analysis of data collected.
2. Results may not accurately reflect all elderly Hispanic women in Hidalgo County.
3. The population was not randomly selected and may not be representative of the population studied.
4. The instruments were not translated into Spanish in order to preserve the reliability and validity.

5. Lack of literacy prevented some subjects from participating in the study.
6. There were a limited number of English-speaking literate subjects available at the research sites, restricting the number of subjects included in the study.

Theoretical Framework

Two theories were chosen as a framework for this pilot study: Leininger's Theory of Culture Care Diversity and Universality and the Health Belief Model. Leininger describes transcultural care as it applies to the delivery of health care (Leininger, 1995). The Health Belief Model attempts to identify factors that explain why people use health services (Becker, 1974; Rosenstock, 1966). These two frameworks are discussed.

Theory of Culture Care Diversity and Universality

Madeleine Leininger's Theory of Culture Care Diversity and Universality described human beings as inseparable from their cultural background, social structure, worldview, history, and environmental context (Leininger, 1995). Nursing, according to this model, acts as a bridge between culture and health care. Leininger further described three kinds of nursing care: cultural care preservation and maintenance, cultural care accommodation or negotiation, and cultural care repatterning (Leininger, 1991). Leininger's Theory of Culture Care Diversity and Universality promotes culturally congruent care which Leininger described as assisting, supporting, facilitating, or enabling health care providers to help clients within their own cultural context (Leininger, 1996).

Health care beliefs and attitudes are reinforced by one's family and community over generations (Leininger, 1995). Leininger (1991) addresses fitting nursing care to these attitudes and beliefs through nursing care that preserves cultural beliefs, or by

accommodating cultural beliefs by tailoring health care interventions to them. Culturally sensitive health care may need to repattern attitudes and beliefs to help clients. It has been recommended that interventions using culturally appropriate models be used for cancer risk reduction among the Hispanic population (Balcazar et al., 1995). More studies are needed using Leininger's theory to study how culturally appropriate nursing care could affect breast health in elderly Hispanic women (Baldwin, 1996).

Leininger's Theory of Cultural Care Diversity and Universality was selected for this research due to its recognition of the influence culture plays in motivating members of various ethnic groups regarding health care patterns and practices. This theory is applicable to the decisions of elderly Hispanic women to utilize breast cancer screenings because it recognizes the influence of culture on the client's health beliefs, attitudes, and locus of control. The theory also supports the concept that culture affects the nursing process. Culturally congruent care is needed to target specific groups such as Hispanic elderly women. Culturally congruent care is essential for success in any health care program (Balcazar et al., 1995).

Health Belief Model

The Health Belief Model (HBM) proposed that attitudes influence health related actions (Becker, 1974; Rosenstock, 1966). Four variables of the Health Belief Model were perceived susceptibility, perceived seriousness, perceived benefits, and perceived barriers (Becker, 1974; Rosenstock, 1966). According to the Health Belief Model, a person is more likely to pursue a health-promoting behavior when she sees herself as susceptible to a given condition, believes the condition is serious, perceives few barriers to the behavior, and believes in the benefits of the behavior in curing or preventing the

condition. Health motivation and perceived control were two additional variables that were later added to the Health Belief model (Champion, 1988).

According to the Health Belief Model, triggers or cues are necessary for action to take place (Champion, 1988). This may be an internal cue, such as perception of illness, or an external cue, such as the impact of the media or a friend (Rosenstock, 1966). The feeling of susceptibility and seriousness of an illness provides the force to action (Rosenstock, 1966). The perception of benefits and barriers directs the action taken (Rosenstock, 1966).

The Health Belief Model was chosen in addition to Leininger's theory because this pilot study sought to understand why people take health-promoting actions and what prevents this action. Leininger's theory provides insight into the effects of culture on health care behaviors, and the HBM provides insight into why certain health care behaviors take place.

CHAPTER II

REVIEW OF LITERATURE

The review of related literature includes statistics of breast cancer, risk factors for breast cancer, and methods for breast cancer detection, including breast self-examination, clinical breast examination, and mammogram. Additional breast cancer issues addressed are breast cancer among ethnic groups, ethnicity and breast cancer detection, breast cancer among Hispanics, and breast cancer among elderly Hispanics. Health attitudes and beliefs, including susceptibility, seriousness, benefits, barriers, and locus of control are also discussed.

Breast Cancer Statistics

The American Cancer Society predicts that one in twenty-eight women will die from breast cancer (American Cancer Society, 1995). In the United States, the mortality rate for breast cancer for Hispanics was 12.8 per 100,000 in 1996 for all ages. In 1996 the mortality rate for breast cancer in Texas was 18.5 per 100,000 and 21.0 per 100,000 in Hidalgo County (TDH, 1999). Early detection of breast cancer may affect mortality rates (American Cancer Society, 1999; Smart, 1990).

The new cases of breast cancer discovered each year in the United States corresponds to a new breast cancer diagnosis every three minutes (Leight & Leslie, 1998). The incidence of breast cancer in 50-year-old women is nearly eight times that in

30-year-olds, and the annual incidence in 70-year-old women is three times that in 50-year-olds (Vogel & Yeoman, 1993).

Risk Factors for Breast Cancer

Risk factors for breast cancers include a personal or family history of breast cancer, early menarche, late menopause, lengthy exposure to post-menopausal estrogens, recent use of oral contraceptives, never having children or having the first live birth at a late age, higher education, higher socio-economic status, and a high-fat diet (American Cancer Society, 1999; Dambro, 1997; Tierney et al., 1998; Uphold & Graham, 1998). The three most significant risk factors for breast cancer are female gender, increasing age, and personal history of breast cancer (American Cancer Society, 1995; Lierman et al., 1991; Lierman et al., 1994; USPSTF, 1996.)

Methods of Breast Cancer Detection

There are no proven methods of preventing breast cancer. Screenings may increase the probability of detection of breast cancer at an early stage and, thus, increase long-term survival rates (Gray, 1990).

When breast cancers are diagnosed early as a localized lesion women have a greater than 90% chance of being cured of their disease (American Cancer Society, 1989). Survival rates for both Hispanic and non-Hispanic white women drop from 80% for localized disease to 55% once the cancer has invaded tissue outside the breast (American Cancer Society, 1999). Methods used to reduce mortality from breast cancer through early detection are: breast self-examination, clinical breast examination, and mammography (Budden, 1998; Champion, 1990; Fletcher et al., 1990).

Breast Self-Examination

Breast self-examination is the monthly inspection and palpation of one's breasts for the purpose of early detection of changes in breast tissue that could be cancerous. BSE is simple, economical, safe, and consumer-involved. It does not require specialized equipment and can be done at home (Coe et al., 1994; Mishra et al., 1998). BSE can be done without confronting many of the barriers in our health care system (Mishra et al., 1998). Women performing BSE find 73% of all malignant breast tumors (Coe et al., 1994). BSE allows the detection of lumps as small as one centimeter (Coe et al., 1994). Breast cancer patients who perform regular BSE are diagnosed with smaller lesions (American Cancer Society, 1995; Edgar, Shamian, & Patterson, 1984; Foster et al., 1978; Leight & Leslie, 1998; Lierman et al., 1991).

Although breast self-examination has been found effective for the detection of breast cancer, controversy exists regarding its effects on mortality rates (Budden, 1998; Champion, 1990; Champion, 1992; O'Malley & Fletcher, 1997; United States Preventive Services Task Force [SPSTF], 1996). Even though the effectiveness of BSE has not been proven to reduce mortality from breast cancer, the American Cancer Society, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the National Cancer Institute continue to recommend BSE as a means of early detection of breast cancer (American Cancer Society, 1999; O'Malley & Fletcher, 1997; Ruiz & Caban, 1995; USPSTF 1996).

BSE education by a doctor or nurse has been shown to have a positive impact on patients' adherence to monthly BSE (Champion, 1987; Edgar et al., 1984). After

instruction by nurses. patients have been found to have a greater knowledge of breast cancer and BSE (Edgar et al., 1984; Nettles-Carlson et al., 1988).

Clinical Breast Examination

Clinical breast examinations (CBE) are recommended annually for women over the age of 50. CBE performed by a trained health care professional includes the inspection and palpation of breast tissue (American Cancer Society, 1995). According to a study by Longman, Saint-Germain, and Modiano (1992), CBE performance is related to having a regular doctor, access to health care, and an insurance plan that covers the screening. The effectiveness of CBE alone has not been proven, but when used with mammography, the percentage of breast cancers discovered is increased (USPSTF, 1996). It has been shown that only about one-third of breast cancers can be detected by palpation (Tierney et al., 1998).

Mammograms

Mammograms are low-dose X-rays that allow visualization of the internal structure of the breast. Mammograms are the only reliable means of detecting breast cancer before a mass can be palpated (Tierney et al., 1998). Mammograms have been shown to reduce breast cancer mortality by at least 30% in women over the age of 50 (American Cancer Society, 1995; Smart, 1990). The American Cancer Society (1995) has stated that sensitivity of mammograms for discovering breast cancer is higher than that of CBE or the BSE. Mammograms that are negative for breast cancer are 90% accurate (American Cancer Society, 1995). About 35-50% of early breast cancers can be discovered only by mammograms (Tierney et al., 1998).

Recommendations from various medical professional organizations are for all women over the age of 40 to receive a mammogram every one to two years (USPSTF, 1996). At age 50, women are recommended to obtain a yearly mammogram (USPSTF, 1996) Those women who are at high risk due to personal or family history of breast cancer should have mammograms at an earlier age and annually or according to the recommendation of a physician (USPSTF, 1996).

In a study of Hispanic women, Salazar (1996) found that Hispanic women were less likely to utilize mammograms than non-Hispanic white women. Salazar stated that health education programs are critical to the identification of the barriers and facilitators of mammograms. This study concluded that lack of participation in mammograms may be related to the fact that programs designed to inform and encourage screening practices are not sensitive to the special needs and concerns of Hispanic women.

Breast Cancer Among Ethnic Groups

Research shows mortality rates for breast cancer vary by race and ethnicity (Balcazar et al., 1995). Factors that account for racial differences in survival rates of breast cancer include socio-demographic factors and pathological characteristics of cancer typical to certain ethnic groups, such as stage of cancer at detection, characteristics of the tumor, and the presence of other illnesses (American Cancer Society, 1995). Blacks and non-Hispanic whites are the ethnic groups most researched regarding breast cancer, with less data concerning Hispanics and other minorities (Ruiz & Caban, 1995).

Ethnicity and Breast Cancer Detection

Ethnicity has been found to be a barrier to use of breast cancer screening modalities (Lashley, 1987). Hispanics are less likely to engage in preventive health care practices than non-Hispanic whites or Blacks and have a fatalistic outlook that may be a barrier to screening (Bakemeier et al., 1995; Hubbell et al., 1995; Tortolero-Luna, Guber, Villarreal, Palos, & Linares, 1995). Hispanic women lack knowledge regarding the use of breast cancer screenings (Balcazar et al., 1995; Tortolero-Luna et al., 1995). Hispanic women have greater misconceptions about the causes of cancer and the effectiveness of breast cancer screenings (Balcazar et al., 1995; Tortolero-Luna et al., 1995).

Hispanics are less convinced of the value of early detection in preventing death from breast cancer (Navarro et al., 1995). Hispanic women remain significantly behind other ethnic and racial groups in the use of cancer screening tests (Navarro et al., 1995). Attempts to encourage Hispanic women to participate in early detection screenings for breast cancer have failed for the large part due to lack of culturally sensitive material and the failure to address special problems of this population (Longman et al., 1992). Hispanic women have a lower incidence of breast cancer compared to non-Hispanic White women, but they are more likely to be diagnosed at a later stage, and their over-all survival rate is lower (Bentley et al., 1998; Perez-Stable et al., 1995; Modiano, Villar-Werstler, Meister, & Figueroa-Valles, 1995).

Breast Cancer Among Hispanics

Breast cancer is the most commonly diagnosed cancer among Hispanic women in the United States (Mishra et al., 1998; Trapido et al., 1995). According to the American Cancer Society, biomedical, epidemiological, and behavioral research is needed to improve our understanding of the impact of cancer on minority groups (American Cancer Society, 1999).

Hispanic women have been shown to have a lower occurrence of breast cancer than non-Hispanic white women, but more often result in a poor prognosis for survival (Longman et al., 1992; Salazar, 1996). Hispanic women are at greater risk for presenting with breast cancer at a later stage, with larger tumors, and with regional or distant metastases and have a higher mortality rate (American Cancer Society, 1995; Bentley et al., 1998; Longman et al., 1992; Modiano et al., 1995; O'Malley, Kerner, Johnson, & Mandelblatt, 1999). Research suggests that breast cancer in Hispanic women is biologically more aggressive than that of non-Hispanic white women (Bentley et al., 1998). Data regarding the causes and risk factors for breast cancer in Hispanic women in the United States is scarce and often outdated (Modiano et al., 1995).

A study of age and ethnicity as related to breast cancer screenings showed Hispanic women were less likely than non-Hispanics to participate in BSE, CBE, and mammography (Tortolero-Luna et al., 1995). This study showed older Hispanic women lacked knowledge regarding the use of breast cancer screenings (Tortolero-Luna et al., 1995). Hispanic women had greater misconceptions about the causes of cancer and the effectiveness of breast cancer screenings (Tortolero-Luna et al., 1995).

Breast Cancer Among Elderly Hispanics

As Hispanic women age, breast cancer risk increases (Bentley et al., 1998).

Research has shown a 50% increase in the proportion of patients aged 55 to 64 years with distant metastasis at diagnosis compared with younger women (American Cancer Society, 1999; Lierman et al., 1991; Lierman et al., 1994). In the United States, mortality rates for breast cancer for Hispanic elderly women was 56.5 per 100,000 for women aged 65-74. For Hispanic women aged 75-84, the mortality rate in the United States rose to 85.6 per 100,000 (National Center for Health Statistics, 1996) The over-all breast cancer survival rate for elderly Hispanic women is lower than for non-Hispanic white women (Bentley et al., 1998; Perez-Stable et al., 1995; Modiano et al., 1995).

Health Attitudes and Beliefs

Health beliefs have been identified as variables that influence action (Rosenstock, 1966). These variables include (a) a psychological readiness to take action, and (b) the extent to which a course of action is perceived to be beneficial in reducing a threat (Rosenstock, 1966). The degree to which an individual feels susceptible to a condition and the severity of the impact perceived on his life determines his or her action (Rosenstock, 1966). Perceived susceptibility and seriousness reflect feelings of vulnerability to a health problem and motivate people to action. Beliefs are subjective and not based on fact or the efficacy of the action (Champion, 1992; Murray & Zentner, 1997; Pender, 1996; Stillman, 1977).

Cultural beliefs affect the health practices of ethnic groups, including Hispanics (Baldwin, 1996; Bentley et al., 1998). Rokeach (1968) suggested that health beliefs and attitudes affect how Hispanics perceive and maintain their health. Feelings of fear and

hopelessness and an attitude of fatalism, as well as other health beliefs, affect Hispanic women's health practices (Bakemeier et al., 1995; Hubbel et al., 1995; Vernon et al., 1991).

An attitude is an evaluation of a behavior, and is a predictor for a variety of actions and intentions to perform health-promoting strategies (Finlay, Trafimow, & Jones, 1997). Attitudes may be formed from experiences and knowledge attained as a child and carry over into adult life, continuing to dictate health care practices (Bakemeier et al., 1995; Perez-Stable et al., 1995). Attitudes or beliefs concerning cancer may affect use of screening practices. A woman's participation in cancer screenings is affected by her attitude towards cancer (Salazar & Carter, 1993). Some attitudes which affect behavior concerning cancer screenings are: fear of a painful procedure, fear of discovering cancer, fear of telling the spouse news about cancer, and a fatalistic viewpoint (Hubbell et al., 1995).

Attitudes and beliefs identified by the Health Belief Model are susceptibility, seriousness, perceived benefits and barriers, and health motivation. Each variable's role in determining health behavior will be discussed.

Susceptibility

Susceptibility is the perceived personal risk of contracting a disease (Champion, 1993). Susceptibility to breast cancer is a belief that has been studied as a motivator to health-promoting action (Rosenstock, 1966). If a person perceives herself to be susceptible to a disease, an inner force motivates her to action (Rosenstock, 1966). The actual efficacy of the action is not the determining factor, but rather what the subject believes will be the outcome (Rosenstock, 1966). Women who performed BSE more

frequently perceived themselves to be more susceptible to breast cancer than other women (Champion, 1993; Massey, 1988). Women who reported having a mammogram have been shown to perceive their risk (susceptibility) as higher than those who had not had a mammogram (Vernon et al., 1991).

Seriousness

Seriousness is the perceived degree of personal harm related to a disease (Rosenstock, 1966). An example of perceived seriousness would be a patient stating: Breast cancer is an extremely serious disease (Rosenstock, 1966). Research has shown that women with the lowest levels of perceived harm were the least likely to know about BSE (Massey, 1988). Women perceiving themselves at risk for breast cancer have been shown to perform BSE more regularly (Massey, 1988).

Benefits

Benefits are the perceived positive rewards from an action (Rosenstock, 1966). Women are more likely to participate in a health-promoting behavior if they perceive a benefit (Champion, 1993). A person's beliefs about the effectiveness of a course of action may affect his decision to take action (Rosenstock, 1966).

Barriers

Barriers are perceived negative consequences related to an action (Rosenstock, 1966). Barriers may be attitudes that adversely affect BSE adherence (Champion, 1993). Barriers to health related actions include lack of information, psychological factors, fear, anxiety, modesty, shyness, and lack of knowledge regarding performance of the necessary action (Rosenstock, 1966). A major barrier to performing BSE is uncertainty of knowing how to distinguish normal from abnormal breast tissue (Stillman, 1977).

Hispanics may have additional barriers to health care that include: lack of health care access, including a lack of health insurance, under-representation in health care fields, lack of education, and cultural and language differences (Longman et al., 1992). Demographic characteristics of Hispanics that may be barriers include lower educational and socioeconomic levels (Longman et al., 1992). These distinct demographic characteristics and barriers have a direct impact on the risk of cancer in Hispanics and on the development of prevention and control strategies (Longman et al., 1992; Ramirez, Villarreal, Suarez, & Flores, 1995).

Cultural beliefs may be barriers to early breast cancer detection (Balcazar et al., 1995). In a research study, Hispanic women preferred not to know if they had breast cancer, would fear telling their husbands, and believed they were more likely than other ethnic groups to get breast cancer (Hubbel et al., 1995). Fear of cancer has been suggested as the most important barrier to breast cancer preventive practices (Lierman et al., 1994). Many Hispanic women have misconceptions about breast cancer and cancer screenings that may inhibit their use of breast cancer screenings (Morgan, Park, & Cortes, 1995).

Health Locus of Control

Health locus of control is the expectation that a person's behavior leads to a certain outcome and addresses internal and external factors that affect behaviors. Locus of control describes the degree to which a person believes his/her behavior will affect outcome (Wallston, Wallston, DeVellis, Stein, & Smith, 1999). Internal control refers to beliefs and attitudes that predict behaviors. External locus of control may refer to chance

circumstances or a control by others that may predict behaviors (Bundek et al., 1993; Wallston et al., 1999).

Locus of control may affect health practices, therefore understanding beliefs about the factors that control health outcomes gives insight to health-related behaviors (Bundek et al., 1993; Wallston et al., 1999). Locus of control may relate to the use of medical screening practices (Bundek et al., 1993). Locus of control, as well as susceptibility, seriousness, barriers, and health motivation have been shown to predict intent to practice BSE (Champion, 1988).

One study of elderly Hispanic women found a positive relationship between internal locus of control and the use of cancer screening practices by this population (Bundek et al., 1993). In this study, health locus of control beliefs were strongly related to prediction of screening behaviors of elderly Hispanic women (Bundek et al., 1993).

In summary, mortality from breast cancer among elderly Hispanic women is higher than non-Hispanic Whites. Typically, elderly Hispanic women are diagnosed with breast cancer at a later stage, resulting in higher mortality. This correlates with underutilization of breast cancer screening modalities by these women.

CHAPTER III

METHODOLOGY

This pilot study used a non-experimental approach in researching the relationships among health attitudes, beliefs, and locus of control and breast cancer screening among elderly Hispanic women. The Institutional Review Board of the University of Texas-Pan American (UTPA), the chief executive officer of *Amigos del Valle* Senior Centers, and the director at each locale approved the study. This section addresses sample, instruments, and procedure.

Sample

The sample for this pilot study was a convenience sample of English-speaking elderly Hispanic women who volunteered to participate. The sample was recruited from three *Amigos del Valle* senior citizens centers located in Mission, McAllen, and Donna, Texas. The study was explained, and a written consent of participation was obtained from each subject. Subject confidentiality and anonymity was assured and maintained. Subjects were told they could withdraw from the study at any time without penalty. Maintaining privacy during discussion of breast exam, a potentially sensitive topic, protected subject dignity. The women were placed in a room where privacy could be assured.

Subjects were compensated for their participation with an educational session on breast self-examination. This session was announced and presented after all data was collected.

Instruments

This study utilized a demographic questionnaire, three research instruments including Health Care Questions, Health Care Attitudes and Beliefs, and Multidimensional Health Locus of Control, as well as three qualitative questions.

1. **Demographic Questionnaire** (see Appendix A). These questions addressed age, ethnicity, marital status, education, number of children, and insurance/Medicaid/Medicare eligibility.
2. **Health Care Questions** (see Appendix A). This instrument was an adaptation of the *Mujeres Project Attitudes Toward Cancer Instrument*. Positive or negative responses are required for each of the nine questions. This instrument measures the subject's utilization of breast cancer screening modalities. Written permission to use and adapt this instrument was obtained from R. Ramos, the author (see Appendix B). Nine questions dealing with breast cancer were selected from this instrument. The remaining questions dealt with prostate and testicular cancer and cancer in general and did not pertain to this study. There were no studies available regarding the reliability or validity of this questionnaire.
3. **Health Belief Model Scales for Measuring Beliefs Related to Breast Cancer** (see Appendix D). This instrument measures perceived susceptibility to breast cancer, perceived seriousness of breast cancer, perceived benefits of

breast self-examination, perceived barriers to breast self-examination.

health motivation, benefits of mammograms, and barriers to mammography.

The instrument uses a Likert-type scale with five choices, ranging from strongly disagree to strongly agree. This scale has been shown to have a Cronbach alpha reliability of .77 for susceptibility, .78 for seriousness, .61 for benefits, .76 for barriers, and .60 for health motivation. This instrument has been shown to be valid using factor analysis and multiple regression. Written permission was obtained from author V. Champion to use this instrument (see Appendix B).

4. **Multidimensional Health Locus of Control (MHLC)** (see Appendix A). This instrument contains 18 questions and measures beliefs regarding how behavior can affect health. A Likert-type scale is used, with six choices ranging from strongly disagree to strongly agree. Cronbach's Alpha ratings ranged from .67 to .77 demonstrating the instrument's reliability. The scale's validity has been shown to correlate with subjects' state of health (Frank-Stromborg, & Olsen, 1997). This instrument is public domain (see Appendix B).
5. **Qualitative Questions** (see Appendix A). Three qualitative questions were included: (a) How do you feel about performing monthly breast self-examinations? (b) How did you feel when you had a breast examination performed by a health care professional? and (c) What would help you to get yearly mammograms? These three questions were designed to explore feelings, beliefs, or attitudes that may reflect barriers to the use of the three

breast cancer screening modalities by elderly Hispanic women.

Researchers hoped to discover trends that could be addressed to increase use of the breast cancer screenings by elderly Hispanic women.

Design and Procedure

Amigos del Valle was contacted to obtain permission to visit their facilities in Mission, McAllen, and Donna, Texas and to obtain volunteer subjects from their clientele to participate in this research. On the selected day, at each of the senior centers, subjects were given a packet by researchers containing a demographic questionnaire and the instruments described above. Researchers verbally defined the three breast cancer screening modalities for the subjects. In deference to the elderly population, the nurse researchers read the questionnaires to the subjects when necessary to facilitate completion of the instruments.

CHAPTER IV

ANALYSIS OF DATA

Descriptive statistics were employed to identify tendencies. A severe limitation was that the size of the sample was 52 subjects, limiting data analysis to descriptive statistics. The data were divided into groups of subjects who had not performed any of the screening modalities, those who had performed some of the screenings but not all, and those who had utilized the three breast cancer screenings.

Responses to the qualitative questions were analyzed and frequency distributions were noted. The majority of the subjects responded to these questions with single word responses.

Data were gathered during the months of January and February 2000. Thirty volunteers were obtained at the McAllen *Amigos del Valle* senior center. Sixteen volunteer subjects were obtained from the Donna *Amigos del Valle* senior center, and eight volunteer subjects were obtained from the Mission *Amigos del Valle*. All 52 subjects identified themselves as Hispanic.

Researchers explained the tools, obtained consent, assured confidentiality and anonymity, and offered subjects access to the completed results if they desired. The instruments were distributed to the women during their regular visit to the senior citizen

centers. The subjects were assisted by the researchers to complete the instruments upon request. All 52 instrument packages received were utilized for data collection. To avoid altering the analysis, missing data from unanswered questions was left blank as opposed to being assigned a placeholder.

Data were sorted according to usage of the three breast screening modalities. This resulted in three groups of subjects: (a) non-screening group: those who had never utilized any of the breast cancer screening modalities; (b) partial-screening group: those who used some but not all of the breast cancer screening modalities; and (c) screening group: those who had utilized all three breast cancer screening modalities. Ten subjects (20%) were in the non-screening groups. Twenty-one subjects (40%) were in the group who utilized some of the screenings. The remaining 40% utilized all of the screenings consisted of 21 subjects.

Demographic Information

Table 1 shows the results of the demographic questions. The average age of the subjects was 71.5 years, with a range from 60 to 87 years. A total of 52 participated in the study: twenty-five (50%) were married; five (10%) were divorced; and twenty-one (40%) were widowed. One subject did not state marital status. Average school grade completed was 7.6, with a range from one to twelve years of school completed. Seven subjects did not answer the question regarding school grade completed. The average number of children the subjects had was 4.6 with a range from 0 to 10 children. Forty-three subjects out of fifty (84%) had some type of medical insurance. Two subjects did not respond to this question. Table 1 demonstrates the demographic characteristics of

the sample, and the three groups that utilized none, some, or all of the breast cancer screening modalities.

Table 1

Demographic Information

	Non-Screening Group n=10	Partial Screening Group n=21	Screening Group n=21	All Groups n=52
Age				
Mean	75.0	63.5	71.0	71.5
Range	61-86	60-87	60-83	60-87
Education				
Mean	6.0	7.6	8.7	7.6
Range	2-6	1-12	3-12	1-12
No. of Children				
Mean	3.8	5.0	5.8	4.6
Range	2-10	1-10	0-10	0-10
Marital Status				
Married	3	10	12	25
Divorced	0	3	2	5
Widowed	7	7	7	21
Insurance				
Yes	9	18	16	43
No	1	2	4	7

n=number of subjects

Non-screening group=subjects who had never utilized BSE, CBE, or mammography.

Partial Screening Group=subjects who have used some of the breast cancer screenings but not all.

Screening group= subjects who had utilized all three breast cancer screening modalities.

Total Group=all subjects who participated in the study.

Non-responders not included in this table.

Questions on Health Care

Table 2 shows the mean responses to the instrument entitled Questions on Health Care. Three questions on this instrument pertained directly to the three breast cancer screening modalities and were selected for review. Question 4 asked if the subject had

examined her breasts for lumps every month for the last six months. Twenty-seven out of 52 responded they had utilized BSE, representing 51% of the population studied.

The fifth question asked if the subject had ever had a mammogram. Thirty-nine subjects (75%) of the 52 participants answered that they had utilized mammography. The seventh question revealed that a health care provider had examined 33 of the subjects (63%) for breast cancer. Table 2 demonstrates the results of selected questions from the Questions on Health Care instrument that were reflective of the use of the three breast cancer screening modalities.

Table 2

Questions on Health Care

	Non-Screening Group n=10	Partial Screening Group n=21	3-Screening Group n=21	All Groups n=52
Statement 4				
Yes	0	6	21	27
No	10	15	0	25
Statement 5				
Yes	0	17	21	38
No	10	3	0	13
Statement 7				
Yes	0	12	21	33
No	10	8	0	18

n=number of subjects

Statements:

4. Have you examined your breast for lumps every month for the last six months?

5. Have you ever had a mammogram?

7. Has a doctor, nurse, or other health care provider ever examined your breasts to screen for breast cancer?

Non-responders omitted from this table.

Health Care Attitudes and Beliefs

The Health Care Attitudes and Beliefs was the second instrument used for this research and contained seven sections. The sections of this instrument were

Susceptibility to Breast Cancer. Seriousness of Breast Cancer. Benefits of Breast Self-Examination, Barriers to Breast Self-Examination. Health Motivation. Benefits of Mammogram, and Barriers to Mammogram. Each section of this instrument contains statements dealing with perceptions that relate to attitudes and beliefs regarding breast cancer and screenings. Responses to these statements are measured on a Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Susceptibility

Table three shows the mean responses for the statements regarding susceptibility on the Health Attitudes and Beliefs instrument. The mean response for statements 2 through 5 for the non-screening group was 3.1, indicating this group felt neutral in regards to their susceptibility to breast cancer. The mean response for statements 2 through 5 for screening group was 2.8, indicating near neutral or mild disagreement with feeling susceptible to breast cancer. The responses to statements 2 through 5 were very similar. They were averaged and are shown in Table 3 below.

Table 3

Susceptibility to Breast Cancer

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-5	3.0	2.3	2.8	2.7

n=number of subjects

Statements:

1. It is extremely unlikely I will get breast cancer in the future.
2. I feel I will get breast cancer in the future.
3. There is a good possibility I will get breast cancer in the next 10 years.
4. My chances of getting breast cancer are great.
5. I am more likely than the average woman to get breast cancer.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Seriousness of Breast Cancer

The section of the Health Care Attitudes and Beliefs instrument that measured seriousness had similar responses for all the statements. Table 4 shows the results of this section of the instrument. The mean response for the total group was 3.0, showing this group felt neutral towards the seriousness of breast cancer. The non-screening groups had a higher mean score of 3.8, revealing a slightly stronger attitude that breast cancer is serious. The screening group had a mean score of 2.6, indicating disagreement or near neutral attitude towards the attitude that breast cancer is serious.

Table 4

Seriousness of Breast Cancer

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-7	4.4	3.4	3.4	3.7

n=number of subjects

Statements:

1. The thought of breast cancer scares me.
2. When I think about breast cancer, my heart beats faster.
3. I am afraid to think about breast cancer.
4. Problems I would experience with breast cancer would last a long time.
5. Breast cancer would threaten a relationship with my boyfriend, partner, or husband.
6. If I had breast cancer my whole life would change.
7. If I developed breast cancer, I would not live longer than 5 years.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Benefits of Breast Self-Examination

The Health Care Attitudes and Beliefs instrument contains six statements concerning the perceived benefits of breast self-examination. The non-screening group mean score was 4.4, showing agreement to the benefits of BSE. The screening group

mean score was 3.4, showing neutrality towards the benefits of BSE. Table 5 records the mean responses to statements 1 through 6.

Table 5

Benefits of Breast Self-Examination

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-6	4.4	3.4	3.4	3.7

n=number of subjects

1. When I do breast self-examination I feel good about myself.
2. When I complete monthly breast self-examination, I don't worry as much about breast cancer.
3. Completing breast self-examination each month will allow me to find lumps early.
4. If I complete breast self-examination monthly during the next year I will decrease my chance of dying from breast cancer.
5. If I complete breast self-examination monthly I will decrease my chances of requiring radical or disfiguring surgery if breast can occurs.
6. If I complete monthly breast cancer self-examination it will help me to find a lump which might be cancer before it is detected by a doctor or a nurse.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Barriers to Breast Self-Examination

There were 17 questions that addressed barriers to breast self-examination. The first five statements were selected because the responses were representative of the majority of the questions that appeared in this section. Table 6 shows the mean results of statements 1 through 5 and the mean results of statement 14. The total group had a mean score of 3.0, indicating a neutral feeling toward the barriers presented. The mean score for the non-screening groups was 3.8, a slightly higher score, indicating a tendency to agree with the barriers to BSE.

In this section of the Health Attitudes and Beliefs instrument, statements 7 though 17 dealt with confidence in performing BSE. For all statements the screening group

scored higher, indicating this group had more confidence in performing BSE than the non-screening group. Statement 14 in particular showed that the mean response for the screening group was 4.0, indicating they were sure of the steps to follow in doing BSE. The non-screening group had a mean score of 3.1, indicating a neutral feeling towards confidence towards BSE. Table 6 shows the mean results of statements 1 through 5 and the mean result of statement 14.

Table 6

Barriers to Breast Self-examination

	Non-Screening n=10	Partial Screening N=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-5	3.8	2.7	2.6	3.0
Mean response Statement 14	3.1	3.4	4.0	3.5

n=number of subjects

1. I feel funny doing breast self-examination
2. Doing breast self-examination during the next year will make me worry about breast cancer.
3. Breast self-examination will be embarrassing to me.
4. Doing breast self-examination will take too much time.
5. Doing breast self-examination will be unpleasant.

14. I am sure of the steps to follow for doing breast self-examination.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Health Motivation

The Health Motivation section of the Health Attitudes and Beliefs instrument contained seven statements. An overall mean was obtained for each group. The non-screening group responded with 4.8, showing strong agreement to the belief of health

motivation. The screening group scored a mean of 4.1, also agreeing but not as strongly. Table 7 shows the mean responses for the seven health motivation statements.

Table 7

Health Motivation

	Non-Screening n=10	Partial Screening N=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-7	4.8	3.9	4.1	4.3

n=number of subjects

Statements:

1. I want to discover health problems early.
2. Maintaining good health is extremely important to me.
3. I search for new information to improve my health.
4. I feel it is important to carry out activities which will improve my health.
5. I eat well balanced meals.
6. I exercise at least 3 times a week.
7. I have regular health check-ups even when I am not sick.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Benefits of Mammogram

In this section of the Health Attitudes and Beliefs scale, six statements addressed benefits of mammogram. A mean was obtained for each group. The non-screening group had a mean score of 4.4, showing that this group agreed with the benefits of having a mammogram. The screening group showed slight agreement with a mean score of 4.0, slightly weaker than the non-screening group. Table 8 shows the mean responses to statements 1 through 6 for the section of Health Attitudes and Beliefs on the benefits of mammograms.

Table 8

Benefits of Mammogram

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-6	4.4	4.0	4.0	4.1

n=number of subjects

Statements:

1. When I get a recommended mammogram, I feel good about myself.
2. When I get a mammogram, I don't worry as much about breast cancer.
3. Having a mammogram or x-ray of the breast will help me find lumps early.
4. Having a mammogram or x-ray of the breast will decrease my chance of dying from 5. breast cancer.
5. Having a mammogram or x-ray of the breast will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.
6. Having a mammogram will help me find a lump before it can be felt by myself or other health professional.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Barriers to Mammogram

In this section of the Health Attitudes and Beliefs instrument, barriers to mammograms are addressed. The means of the five statements for each of the groups were averaged to obtain an over-all score. The non-screening group had a mean score of 3.3, indicating neutrality toward the statement. The screening group had a mean score of 2.9, also indicating a neutral feeling toward the statement.

Statement 2 was notable for a greater difference between the non-screening and screening groups. The non-screening group responded with a mean of 3.8, indicating agreement with the statement that having a mammogram would be embarrassing. The screening group had a mean of 2.6, indicating a more neutral/disagreeing feeling towards the statement that having a mammogram would be embarrassing. Table 9 shows the

mean response to statements 1-5 and to statement 2 for the Barriers to Mammogram section of the Health Care Attitudes and Beliefs instrument.

Table 9

Barriers to Mammogram

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean response Statements 1-5	3.3	2.7	2.9	2.9
Mean response Statement 2	3.8	2.7	2.6	3.0

n=number of subjects

Statements:

1. Having a routine mammogram or x-ray of the breast would make me worry about breast cancer.
2. Having a mammogram or x-ray of the breast would be embarrassing.
3. Having a mammogram or x-ray of the breast would take too much time.
4. Having a mammogram or x-ray of the breast would be painful.
5. Having a mammogram or x-ray of the breast would cost too much money.

Scale: 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Multidimensional Health Locus of Control

The Multidimensional Health Locus of Control instrument contained 18 statements to measure internal and external locus of control. Three statements showed interesting results. Statement 4 states: Most things that affect my health happen to me by accident. The non-screening group responded to statement 4 with a mean score of 4.7, indicating moderate agreement and an external locus of control. The screening group had a mean response was 3.2 showing disagreement with the statement and a more internal locus of control.

Response by the non-screening group to statement 11 revealed a mean score of 5.0, showing moderate agreement with health being a matter of good fortune. This

response demonstrates external control. The screening group scored a mean of 3.4, showing slight disagreement to the external control of good fortune.

Statement 16 states: If it's meant to be, I will stay healthy. For statement 16 the non-screening group had a mean score of 5.1, showing moderate agreement or external control. The screening group had a mean response of 3.8, leaning toward disagreement or less external control. Table 10 shows the mean responses to statements 4, 11, and 16 on the Multidimensional Health Locus of Control instrument.

Table 10

Multidimensional Health Locus of Control

	Non-Screening n=10	Partial Screening n=21	Screening Group n=21	Total Group n=52
Mean Response Statement 4	4.7	3.4	3.2	3.8
Mean Response Statement 11	5.0	3.2	3.4	3.9
Mean Response Statement 16	5.1	3.5	3.8	4.1

n=number of subjects

Statements:

4. Most things that affect my health happen to me by accident.

11. My good health is largely a matter of good fortune.

16. If it is meant to be I will stay healthy.

Scale: 1=Strongly Disagree 2=Moderately Disagree 3=Disagree 4=Agree

5=Moderately Agree 6=Strongly Agree

Qualitative Results

Three qualitative responses were addressed. These questions were open-ended, designed to elicit feelings that subjects had towards performing each of the three breast cancer screening modalities. The subjects answered these questions with brief responses, using from one to four words.

Qualitative Question One

The first question was stated as follows: How do you feel about performing monthly breast self-examinations? Thirty of the forty subjects (75%) answering this question responded they felt “good” or “okay” when performing BSE. Three subjects (8%) answered that they “do not know how” to perform breast self-examination. Three of the subjects (8%) responded that BSE hurt or caused them pain. Other answers received to this question were: natural, relief, it’s important, fine, and it’s a must.

Qualitative Question Two

The second qualitative question was stated as follows: How did you feel when you had a breast examination performed by a health care professional? The most common response was given by 15 of the subjects (35%) who answered that they felt “good” about having a health care professional examine their breasts. Nine subjects (21%) responded that they felt “fine” or “okay”. The third most common response to this question, given by eight subjects (19%), was “embarrassed.” Four subjects (10%) expressed negative feelings in answer to this question. These answers included: uncomfortable, nervous, worried, and uneasy. Three subjects (7%) responded that CBE “hurt.”

Qualitative Question Three

The third qualitative question asked: What would help you to get yearly mammograms? Transportation was the most recurrent answer to this question with four subjects (10%) giving this response. Four subjects (10%) indicated that "cost" was a barrier to mammogram. One subject stated "to ask for one" would help her get a mammogram yearly. Another subject stated she would get a mammogram yearly if "I were reminded". Nineteen of the subjects who answered this question gave answers that were not appropriate to the question: sure, calm, better, good, secure, and assurance.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

This chapter offers implications of the findings of this pilot study and recommendations for further research. Conclusions of the researchers are discussed.

The Health Belief Model provides insight into why certain health care behaviors take place. This pilot study sought to understand how attitudes and beliefs of elderly Hispanic women were related to their use of the breast cancer screening modalities. This study attempted to provide insight into the effects of culture on health care behaviors. One finding of this study was the attitude of fatalism among the non-screening group of subjects. This coincides with findings of other researchers concerning the attitude of fatalism affecting the use of breast cancer screening modalities (Bakemeier et al., 1995; Hubbel et al., 1995; Vernon et al., 1991).

Administration of Questionnaires

Researchers discovered some concerns with the instruments used in the research. A more trans-cultural approach could have been appreciated in this pilot study if the instruments had been better adapted to the Hispanic population. Some subjects in the chosen locations were excluded because they did not speak English. Others were excluded because they could speak English but could not read it. Researchers felt that the pilot study would have been more effective with the instruments translated into Spanish.

One limitation of this pilot study was the length of the instruments. Subjects had difficulty focusing their attention on the responses until completed. Many of the subjects required assistance understanding the questions due to the repetitive nature of the instruments. The instruments were designed to query the subjects on an issue, rewording the same question several times. This seemed to confuse and, sometimes, anger the subjects who did not understand why the same question was asked repeatedly.

The subject group had difficulty with the concept of the Likert-style responses. The difference between “strongly, moderately, and neutral” agreement versus disagreement were difficult concepts for the subjects. Subjects asked the researchers repeatedly to explain what was meant by these gradients. This may have been a cultural phenomenon or a problem of interpretation by a population who frequently communicates in Spanish. It may have also been a problem of literacy.

Many subjects had difficulty reading and understanding the instruments for various reasons. Some lacked higher education; some had physical disabilities such as poor eyesight and requested researchers to read the instruments to them. The vocabulary of the instruments at times was not clear to the lay subject. An example of this was that the women did not understand what was meant by “radical or disfiguring surgery.”

Questions on Health Care

For evaluation purposes, researchers sorted the data into two groups for comparison: those who had never used any of the breast cancer screenings and those who had used all three modalities. Data from the Health Care Attitudes and Beliefs and the MHLC was analyzed to determine differences in attitudes, beliefs, and locus of control within the screening and non-screening groups.

Health Care Attitudes and Beliefs

The Health Care Attitudes and Beliefs instrument measured the variables of susceptibility to breast cancer, seriousness of breast cancer, benefits of breast self-examination, barriers to breast self-examination, health motivation, benefits of mammogram, and barriers to mammogram. The barriers of susceptibility, seriousness, benefits, barriers, and health motivation are discussed.

Susceptibility to Breast Cancer

Regarding attitudes of susceptibility to breast cancer, the screening group tended to feel slightly less susceptible to breast cancer than the non-screening group. The difference is small between the two groups, but those who utilized the breast cancer screening groups felt less that they will get cancer in the future. This difference in attitude may be because they have some confidence in their utilization of the breast cancer screenings. A larger subject group would need to be studied to determine if a difference does exist between the feelings of susceptibility in these two groups.

Seriousness of Breast Cancer

Both the non-screening and screening groups showed perceived seriousness concerning the effects breast cancer would have on their lives. Responses varied from disagree to strongly agree, with the majority of subjects agreeing with five out of seven statements regarding the seriousness of breast cancer.

This section revealed an interesting finding. The non-screening group had a higher mean score (4.4) of seriousness than the screening group score (3.4). Those who did not utilize the breast cancer screenings were shown to believe breast cancer is more serious than those who utilized the screening modalities. The non-screening group had a

stronger belief that breast cancer is serious but did not use the breast cancer screening modalities. According to the demographic characteristics of the screening group, this group had a higher education than the non-screening group. It may be that this more educated group had better knowledge regarding the benefits of early diagnosis leading to improved prognosis.

Benefits of Breast Self-Examination

The non-screening group had a higher score and leaned towards the belief in the benefits of BSE. The screening group was more neutral in feeling that there were benefits of BSE. Those who did not perform BSE believed stronger in the benefits of BSE than those who did perform it. The screening group, having higher education, may realize that BSE does not identify all breast cancers and understand that CBE and mammograms are also necessary. This knowledge of the need for all three screening modalities may explain why they did not display as much confidence in BSE as did the non-screening group. It is possible that the non-screening group, while believing in the benefits of BSE, were prevented from BSE by barriers such as those discussed in the review of literature. More research and a larger sample size are needed to clarify the beliefs of elderly Hispanic women concerning the benefits of BSE.

Barriers to Breast Self-Examination

Researchers noticed that, while completing this section of the Health Attitudes and Beliefs instrument, subjects asked why similar statements were given. The instrument contains three statements asking the subjects if she can find a lump the size of a quarter, then a lump the size of a dime, and then a lump the size of a pea. It appeared that this statement was not understood. Subjects may have lacked knowledge of

abnormalities in breast tissue and do not know what to expect during BSE. Bentley (1998) addressed lack of knowledge as a barrier to BSE.

Responses of the non-screening group indicated they had experienced the barriers to BSE presented in the instrument. According to the statements pertaining to barriers to BSE, the non-screening group felt performing BSE was uncomfortable, made them worry, was time-consuming, and was embarrassing. The response of the screening group was considerably more neutral towards these barriers than the non-screening group, indicating that the screening group did not feel the barriers to BSE as strongly as those in the non-screening group.

Researchers recommend that further study is needed regarding overcoming these barriers. The non-screening group may benefit from patient education regarding the barriers presented in this questionnaire. Instruction could be given regarding the benefits of BSE, how to perform BSE, and address individual concerns. Research could be conducted regarding the efficacy of various types of patient education with this group to arrive at the most culturally congruent intervention. Women have been shown to utilize BSE more when having had the procedure demonstrated by a nurse or other health care provider (Champion, 1987; Edgar et al., 1984).

Health Motivation

In the review of literature, Hubbel et al (1995) suggested Hispanic women feared the discovery of cancer. Responses of all groups to statement 1 in this section demonstrated a desire to discover health problems early, rather than a fear of discovering cancer. Further research is needed to gain insight on how fear of cancer could be addressed among elderly Hispanic women to increase adherence to the breast cancer

screening modalities. During the research sessions at the three locations for this study, researchers noticed the subjects were very anxious to obtain further information on various health topics.

Health motivation was another area of the Health Care Attitudes and Beliefs instrument. The non-screening group indicated fairly strong agreement with an attitude of health motivation. This group agreed with statements dealing with the importance of discovering health problems early, maintaining good health being important, searching for new information, eating well-balanced meals, exercising, and having regular check-ups, yet they did not perform the breast screening modalities. The non-screening group may lack knowledge about what steps to take to maintain their health. The screening group also showed an attitude of health motivation but with weaker agreement than the non-screening group. It may be that the more educated screening group felt more secure regarding their health because of their use of the three breast screening modalities. They demonstrate health motivation by utilizing BSE, CBE, and mammograms.

Benefits of Mammogram

This section of the Health Attitudes and Beliefs instrument contained six questions measuring benefits of mammogram. The non-screening group indicated they strongly agreed with the benefits of mammogram. Incongruence was found regarding belief and practice of mammograms. Perhaps the non-screening group that is less educated than the screening group lacked knowledge regarding obtaining mammograms. They may not know when to get a mammogram or how frequently or where to obtain it. They may also be unaware of financial help that is available for mammograms. The screening group also agreed with the benefits of mammogram, but with a slightly weaker

score. This may indicate that the screening group had knowledge of the need to utilize all three breast cancer screening modalities.

Barriers to Mammogram

These statements measured perceived barriers to utilizing mammography. Notable results were found in response to statement 2. The non-screening group indicated that they felt having a mammogram would be embarrassing. This coincides with a study by Longman et al (1992) that found that elderly Hispanic women were nervous or embarrassed by having their breasts examined. The screening group indicated a feeling of neutrality or mild disagreement. The feeling of embarrassment may be a significant barrier to mammography among the non-screening group. Research is needed among elderly Hispanic women to address embarrassment concerning breast examination, and how to decrease this embarrassment in order to increase early diagnosis of breast cancer.

Multidimensional Health Locus of Control

Three statements from the MHLC revealed interesting responses, showing a possible difference in attitudes between the non-screening and the screening groups. The non-screening group felt that most things that affected their health happened to them by accident, luck, or fate. The screening group disagreed that things affecting their health happened to them by accident, luck, or fate. These three statements regarding accident, luck, or fate controlling health showed that the subjects who did not utilize the breast cancer screenings have a more external locus of control than those who utilize BSE, CBE, and mammography. This coincides with literature that revealed that fatalism and

superstitious beliefs affected health care practices (Lierman et al., 1994; Navarro et al., 1995; Tortolero-Luna et al., 1995).

Qualitative Questions

Subjects' perceptions and feelings about their attitudes and beliefs regarding health care decisions were investigated using three open-ended qualitative questions. The first question dealt with feelings the subjects expressed regarding BSE. Responses indicated that subjects felt "good" after performing BSE. A small number (8%) indicated that they "do not know how" to perform BSE. This may be an indication for culturally based education regarding BSE. Education may address the 8% who indicated they felt "pain" when performing BSE, and, through this education, decrease this as a barrier to adherence.

The second qualitative question investigated how the subjects felt when having their breasts examined by a health care professional. Fifty-six percent stated that they felt "good, fine, or okay", indicating they felt rewarded for having done something good for their health. Comments made to researchers during the site visits were that the subjects' health care provider had never performed CBE on them. Researchers believe that health care providers should include CBE in their health examinations for this high-risk group. The second-most common response to this question was "embarrassed, uncomfortable, nervous, worried, and uneasy". Culturally sensitive education could address these barriers.

The third qualitative question queried the subjects regarding what would help them to get a mammogram. Researchers received many answers to this question that did not directly address the question. The most common plausible response was

“transportation”. A recommendation arising from this study is that mobile mammography units could be scheduled for site visits to senior citizen centers and other locales to facilitate these elderly women to receive mammograms.

Other subjects mentioned that “being reminded” would help them to get mammograms. The health care provider could mail reminder cards to encourage breast cancer screening.

Theoretical Framework

This pilot study reinforced Leininger’s concept of the adaptation needed to provide culturally congruent care. Leininger’s Theory of Culture Care Diversity and Universality shows the importance of addressing health care issues through culturally sensitive interventions. Accommodating the culture when considering the attitude of fatalism might help subjects adapt to beneficial health care practices. Education regarding health care screenings may help to repattern cultural values and beliefs in order to improve health patterns and increase utilization of breast cancer screening modalities. Future research should include a design to better understand culturally based beliefs (Hubbell et al., 1995).

Researchers found that this pilot study supported the construct of the Health Belief Model. The study confirmed that attitudes and beliefs had influenced health related actions. An example is the non-screening group scored slightly higher on questions concerning a fatalistic attitude that may be related to non-participation in the breast cancer screening modalities.

Conclusion

In this pilot study, it was concluded that there appears to be a relationship between attitudes regarding cancer and health beliefs and the use of breast cancer screenings by elderly Hispanic women. One conclusion from this study is that elderly Hispanic women who do not utilize breast cancer screenings may tend to be fatalistic. This population appears to have a barrier to obtaining mammograms due to transportation needs and would benefit from health care providers reminding them to get annual screenings. This study seems to support the need for education in regard to the benefits and barriers to using the breast cancer screenings, improving confidence in technique, dispelling fears, and culturally addressing factors of external control.

Researchers recommend that elderly Hispanic women would benefit from specific inclusion in programs such as the American Cancer Society's Breast Health Awareness Month promotion. Elderly Hispanic women could be targeted for advertisement, coupons, and educational programs. Saint-Germaine et al., (1993) recommended that Spanish media should be involved in educating Hispanics.

Through inclusion in this study, researchers concluded that participants had increased awareness of the need to utilize all three breast cancer screening modalities. As a direct result of inclusion in this pilot study, one facility obtained a van to transport the group to a local mammography provider. The participants at all three sites demonstrated increased interest in this topic as well as other health care issues and requested that the nurses return to provide further education.

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APPENDIX A

Demographic Information

1. Age _____
2. Hispanic _____ non-Hispanic _____
3. Single, never married _____ Married _____ Divorced _____
Widowed _____ Other _____
4. School grade completed _____
5. Number of children? _____
6. Do you have any form of health insurance (such as Medicaid, Medicare, or private insurance)? (check one) *YES* _____ *NO* _____

Questions on Health Care

1. Have you ever had a breast biopsy or breast cancer? (circle one)

YES NO

2. Have you had any type of breast surgery?

YES NO

3. Do you have a relative or close friend who has had breast cancer?

YES NO

4. Have you examined your breasts for lumps every month for the last six months?

YES NO

5. Have you ever had a mammogram?

YES NO

6. Have you had a mammogram in the last 12 months?

YES NO

7. Has a doctor, nurse, or other health care provider ever examined your breasts to screen
for breast cancer? YES NO

8. Do you know about breast self-examination?

YES NO

9. Have you ever had any lumps or bumps on your breast?

YES NO

Adapted from Ramos, R. (1998).

Health Care Attitudes and Beliefs

Check the best answer:

SUSCEPTIBILITY TO BREAST CANCER:

1. It is extremely unlikely I will get breast cancer in the future.
 Strongly disagree Disagree Neutral Agree Strongly agree

2. I feel I will get breast cancer in the future.
 Strongly disagree Disagree Neutral Agree Strongly agree

3. There is a good possibility I will get breast cancer in the next 10 years.
 Strongly disagree Disagree Neutral Agree Strongly agree

4. My chances of getting breast cancer are great.
 Strongly disagree Disagree Neutral Agree Strongly agree

5. I am more likely than the average woman to get breast cancer.
 Strongly disagree Disagree Neutral Agree Strongly agree

SERIOUSNESS OF BREAST CANCER:

1. The thought of breast cancer scares me.
 Strongly disagree Disagree Neutral Agree Strongly agree

2. When I think about breast cancer, my heart beats faster.
 Strongly disagree Disagree Neutral Agree Strongly agree

3. **I am afraid to think about breast cancer.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
4. **Problems I would experience with breast cancer would last a long time.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
5. **Breast cancer would threaten a relationship with my boyfriend, husband, or partner.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
6. **If I had breast cancer my whole life would change.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
7. **If I developed breast cancer, I would not live longer than 5 years.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

BENEFITS OF BREAST SELF-EXAMINATION:

1. **When I do breast self-examination I feel good about myself.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
2. **When I complete monthly breast self-examination I don't worry as much about breast cancer.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
3. **Completing breast self-examination each month will allow me to find lumps early.**
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

4. If I complete breast self-examination monthly during the next year I will decrease my chance of dying from breast cancer.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

5. If I complete breast self-examination monthly I will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

6. If I complete monthly breast self-examination it will help me to find a lump which might be cancer before it is detected by a doctor or nurse.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

BARRIERS TO BREAST SELF-EXAMINATION:

1. I feel funny doing breast self-examination.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

2. Doing breast self-examination during the next year will make me worry about breast cancer.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

3. Breast self-examination will be embarrassing to me.

___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

4. Doing breast self-examination will take too much time.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

5. Doing breast self-examination will be unpleasant.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

6. I don't have enough privacy to do breast self-examination.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

Confidence in breast self-examination:

7. I know how to perform breast self-examination.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

8. I am confident I can perform breast self-examination correctly.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

9. If I were to develop breast cancer I would be able to find a lump by performing breast self-examination.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

10. I am able to find a breast lump if I practice breast self-examination alone.
 ___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

11. I am able to find a breast lump which is the size of a quarter.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
12. I am able to find a breast lump which is the size of a dime.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
13. I am able to find a breast lump which is the size of a pea.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
14. I am sure of the steps to follow for doing breast self-examination.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
15. I am able to identify normal and abnormal breast tissue when I do breast self-examination.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
16. When looking in the mirror, I can recognize abnormal changes in my breast.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
17. I can use the correct part of my fingers when I examine my breasts.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

HEALTH MOTIVATION:

1. I want to discover health problems early.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
2. Maintaining good health is extremely important to me.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
3. I search for new information to improve my health.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
4. I feel it is important to carry out activities which will improve my health.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
5. I eat well balanced meals.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
6. I exercise at least 3 times a week.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree
7. I have regular health check-ups even when I am not sick.
___ Strongly disagree ___ Disagree ___ Neutral ___ Agree ___ Strongly agree

BENEFITS OF MAMMOGRAM:

1. **When I get a recommended mammogram, I feel good about myself.**
 Strongly disagree Disagree Neutral Agree Strongly agree

2. **When I get a mammogram, I don't worry as much about breast cancer.**
 Strongly disagree Disagree Neutral Agree Strongly agree

3. **Having a mammogram or x-ray of the breast will help me find lumps early.**
 Strongly disagree Disagree Neutral Agree Strongly agree

4. **Having a mammogram or x-ray of the breast will decrease my chances of dying from breast cancer.**
 Strongly disagree Disagree Neutral Agree Strongly agree

5. **Having a mammogram or x-ray of the breast will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.**
 Strongly disagree Disagree Neutral Agree Strongly agree

6. **Having a mammogram will help me find a lump before it can be felt by myself or a health professional.**
 Strongly disagree Disagree Neutral Agree Strongly agree

BARRIERS TO MAMMOGRAM:

1. Having a routine mammogram or x-ray of the breast would make me worry about breast cancer.

Strongly disagree Disagree Neutral Agree Strongly agree

2. Having a mammogram or x-ray of the breast would be embarrassing.

Strongly disagree Disagree Neutral Agree Strongly agree

3. Having a mammogram or x-ray of the breast would take too much time.

Strongly disagree Disagree Neutral Agree Strongly agree

4. Having a mammogram or x-ray of the breast would be painful.

Strongly disagree Disagree Neutral Agree Strongly agree

5. Having a mammogram or x-ray of the breast would cost too much money.

Strongly disagree Disagree Neutral Agree Strongly agree

Multidimensional Health Locus of Control

1. If I get sick, it is my own behavior which determines how soon I get well.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

2. No matter what I do, if I am going to get sick, I will get sick.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

3. Having regular contact with my physician is the best way for me to avoid illness.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

4. Most things that affect my health happen to me by accident.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

5. Whenever I don't feel well, I should consult a medically trained professional.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

6. I am in control of my health.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

7. My family has a lot to do with my becoming sick or staying healthy.
 Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

8. When I get sick I am to blame.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
9. Luck plays a big part in determining how soon I will recover from an illness.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
10. Health professionals control my health.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
11. My good health is largely a matter of good fortune.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
12. The main thing which affects my health is what I myself do.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
13. If I take care of myself, I can avoid illness.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree
14. When I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.
- Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

15. No matter what I do, I'm likely to get sick.

Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

16. If it's meant to be, I will stay healthy.

Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

17. If I take the right actions, I can stay healthy.

Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

18. Regarding my health, I can only do what my doctor tells me to do.

Strongly disagree Moderately Disagree Disagree Agree Moderately agree
 Strongly agree

Qualitative Questions

Please write your answer.

1. How do you feel about performing monthly breast self-examinations?

2. How did you feel when you had a breast examination performed by a health care professional?

3. What would help you to get yearly mammograms?

APPENDIX B

INFORMED CONSENT FORM

I, _____, have been informed by Debra Gillett, RN and Rosamaria Ortiz, RN that I am one of approximately 100 subjects that have been asked to volunteer for this survey entitled, "The Relationship Among Attitudes, Beliefs, Locus of Control, and Use of Breast Cancer Screening Modalities in Elderly Hispanic Women". This survey is designed to investigate the relationship between attitudes, health beliefs, and locus of control and the use of breast cancer screenings. You will be instructed to complete the survey and place it in an envelope provided. You will be instructed to put no name on the surveys. Please complete the survey to the best of your ability. Participation in this survey is voluntary and you may withdraw at any time without penalty.

This research has been reviewed and approved by the Institutional Review Board-Human Subjects In Research, University of Texas Pan American. For research related problems or questions regarding subject's rights, the Human Subjects Committee may be contacted through Dr. Juan Gonzalez, Chair, Human Subjects Committee at 381-2880.

I have read and understand the explanations provided to me and voluntarily agree to participate in this study.

Signature of Subject _____


Date ____ / ____ / ____

Signature of Witness _____

Date ____ / ____ / ____

**MEMORANDUM**

To: Rosamaria Ortiz and Mary Kay Gillett (Graduate Student)
Dr. Barbara Tucker, Graduate Advisor, Nursing Department

From: Dr. Juan Gonzalez, Chair, Human Subject's Committee 

Subject: Protocol for "Relationship Among Attitudes, Beliefs, Locus of Control and Use of Breast Cancer Screening Modalities in Elderly Women"

Date: December 17, 1999

The above referenced protocol has been:

- Approved (committee review)
- Approved (expedited review, IRB number 36)
- Conditionally approved (see remarks below)
- Tabled for future considerations
- Disapproved (see remarks below)

by the Institutional Review Board – Human Subjects in Research.

As stipulated in the guidelines of the IRB, this protocol will be subject to annual review by the IRB and any deviations from the protocol or change in the title must be resubmitted to the Board. At the conclusion of the study, you must fill out the enclosed report form.

cc: George Avellano, AVPAA/GP&R

Amigos Del Valle, Inc.

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Programs For Older Americans

1116 N. Conway Avenue

Mission, Texas 78572

Phone (956) 581-9494

Fax (956) 581-2210



January 15, 2000

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Rosamaria Ortiz, RN, MSN Student, UTPA

Debora Gillet, RN, MSN Student UTPA

2507 Brentwood Drive

Mission, Texas 78572

Dear Nurses:

In reference to our telephone conversation of January 13, 2000 in which you requested our authorization to carry out research at our senior centers in Mission, McAllen, and Donna, you have our consent to administer your questionnaires to the elder female participants at such centers as discussed.

Good luck in your endeavors.

Sincerely,

Isaias Aguayo
Deputy Director

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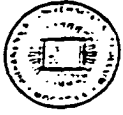
From: Ramos Family <ramosr@swbell.net>
To: Cameron <sotexcam@quik.com>
Sent: Sunday, November 28, 1999 7:50 PM
Subject: Re: Use of ethnographic instrument

Estimadas amigas:

You have my permission to use the questions. And do keep me informed. I would like to exchange ideas with you. I may be in the Mission early Feb. or March.

I tend to read my work e-mail more than my home address. Here is my work email: ramosr@ci.sat.tx.us

11/29/99



September 14, 1999

SCHOOL OF NURSING

Debbie Gillett, RN
2507 Brentwood Drive
Mission, Texas 78572

Dear Ms. Gillett:

Enclosed is a copy of my Health Belief Model and other related materials. You have my permission to use the Health Belief Model. I require that you send me a copy of the completed results. Please call me if you require further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Victoria L. Champion".

Victoria L. Champion, DNS, RN, FAAN
Professor and Associate Dean for Research
Mary Margaret Walther Professor of Nursing

Email address: vcampio@iupui.edu

Wpdocs\HBMrequest.doc

CENTER FOR NURSING RESEARCH

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317-274-7627
Fax: 317-278-2021

*Located on the campus of
Indiana University
Purdue University
Indianapolis*



Multidimensional Health Locus of Control (MHLC) Scales 79

***Greetings Fellow Health Researchers
From Kenneth A. Wallston, PhD***

Thank you for inquiring about our MHLC scales. All three forms and the scoring instructions of the MHLC are available just by clicking the "hot links" and printing out a particular form.

- [Form A](#)
- [Form B](#)
- [Form C](#)
- [Scoring Instructions for all Forms](#)
- [Selected Bibliography](#)
- [FAQ](#)

Frequently Asked Questions - MHLC

Page 1 of 1

You've stated repeatedly that the MHLC scales are "in the public domain." Don't I need your permission to use them in my research?

We've developed the MHLC scales over the years under the auspices of a variety of federally sponsored research grants. Therefore, we have never felt right about charging other researchers a fee for utilizing these scales in their own research. It has been, and will continue to be our policy to place these scales "in the public domain" where they are freely available to the research public. Therefore, although we appreciate it if you acknowledge properly the source of the scales and cite them correctly in your reports, you do not explicitly need our permission to utilize them in your research studies. You do, however, have our blessings.

VITA

Debra Kay Gillett
Permanent Address
2507 Brentwood Drive
Mission, Texas 78572

Education

University of Texas-Pan American, Edinburg Texas

- **Bachelor of Science in Nursing** 1995
- **Bachelor of Arts in Sociology** 1995
- **Master of Science in Nursing** In progress

Experience

- **Family Health Center of Mission, Mission, Texas** 1997-present
Registered Nurse, Private Practice
Patient education, telephone triage,
clinical nursing duties, management of clinical
and laboratory personnel and supplies.
- **Mission Hospital, Mission, Texas** 1995-1997
Registered Nurse, Outpatient Hospital Clinic 1996-1997
Initiated and operated surgical pre-admission clinic.
Outpatient education and infusions.
- **Staff and Charge Nurse, Medical/Surgical/Telemetry** 1995-1996
- **University of Texas-Pan American, Edinburg, Texas** 1993-1995
Research Assistant
Collection, entry, and analysis of data.
- **Charter Palms Hospital, McAllen, Texas** 1992-1994
Mental Health Assistant
Patient care, telephone counseling, and
group facilitator.

Professional Organizations

- **Sigma Theta Tau International Honor Society of Nursing,**
Pi Omicron Chapter
- **Texas Nurse Practitioners**
- **Valley Nurse Practitioner Association**

VITA

Rosamaria Rendon Ortiz
Permanent Address
214 One Oak
San Antonio, Texas 78228

Education

- **Pan American University, Edinburg, Texas**
Master of Science in Nursing **In progress**
- **University of Texas Health Science Center**
at San Antonio, San Antonio, Texas
Bachelor of Science in Nursing **1989**
- **Texas Woman's University, Denton, Texas**
Business courses 15 hours **1983-1984**
- **San Antonio College, San Antonio, Texas**
Associates in Nursing **1973-1978**

Experience:

- **Mission Consolidated ISD** **1998-2000**
School nurse providing professional nursing care to
pre-kinder-high school students for 15 years.
- **Southwest Texas Methodist Hospital** **1985-1996**
Emergency medicine two years and general float pools.
Patient care units included general surgery, orthopedics,
pediatrics, post anesthesia recovery room, and
out-patient day surgery.
- **University Hospital** **1978-1984**
General pediatrics for 4 years,
surgical intensive care 1 year, and
the Brady Walk-In Clinic for 1 year.

Professional Organizations:

- **Texas Nurses Association**
- **Texas School Nurses Association**
- **National School Nurses Association**