HYPOTHESIS:
Cultural and language differences can often provide barriers to communicating necessity of preventative screening for diseases like breast cancer. Financial barriers also are in important factor. Thus, often times, more Laissez-faire approaches to promotion of breast cancer screening are taken. The thought then, is that providing Hispanic women with more interactive and personal interventions, through use of interactive, technology-infused communication interventions, as well as more affordable genetic testing, will help increase awareness of the benefits of genetic testing in the prevention and outlook of breast cancer. Thus, there would be increased participation of Hispanic Women in breast cancer screenings, as well as potential appropriate breast cancer clinical trials.

Specific Aims:
The specific aims of the project are:
- To increase awareness in the Hispanic population of the potential benefits of Genetic testing for combating breast cancer through better providing of informed decisions regarding cancer prevention, risk reduction, more effective early detection, and better determination of risk for family members
- To provide tools to increase the initiative of Hispanic women in San Antonio towards preventative measures in regards to breast cancer
- To increase total breast cancer screening numbers of Hispanic women in the San Antonio metropolitan area
- To increase enrollment of Hispanic Women in to potentially relevant and beneficial breast cancer clinical trials

BACKGROUND AND SIGNIFICANCE:
After expressing my interest to Dr. Kosoko-Lasaki of returning to San Antonio, Texas to do health disparities research, she was able to get my in contact with Dr. Dejun Su, Director of the Center for Reducing Health Disparities at the University of Nebraska-Medical Center, who in turn, got me into contact with Dr. Patricia Chalela of the Institute of Health Promotion Research at the University of Texas-San Antonio Health Science center. Soon after, communication centered on formulating a plan of action for research based on health disparities prevalent to the metropolitan area of San Antonio. Dr. Chalela’s group studies numerous disparities plaguing San Antonio, including diabetes and cardiovascular disease prevalence among the Hispanic population. A particular area they have focused on however actually centers around the discrepancies in perception that Hispanic women have about genetic testing for breast cancer risk compared to their counterparts in the general population. A study done by Tambor and Rimer revealed that demand for genetic testing for breast cancer susceptibility may be quite high among the general population, even among those at relatively low risk of carrying a mutation. In fact, they found that 69% of respondents were willing and would subsequently have genetic testing done. However, according to Ramirez and Chalela, of that group, Latina women comprise only 4%. The question then becomes, why aren't more Latina women partaking in genetic studies compared to their general population counterparts? The goal of the summer project will be to answer this question. What factors are steering Hispanic women away from genetic testing? Throughout the study we will look at factors ranging from cultural
influences, knowledge base on genetic testing, environmental factors, and maybe most importantly, economics.

The significance of this study cannot be understated. Every year Hispanic women in San Antonio and the nation succumb to breast cancer simply because they did not catch it in time, and did not recognize early warning signs that could have been vital to prolonging life, which includes susceptibility genes. By understanding the factors that keep Hispanic women from getting genetically tested in San Antonio (and the nation) for breast cancer susceptibility genes, the hope is to arm primary care physicians in the area with the tools and knowledge necessary to increase these numbers, and in correlation, maybe help decrease the number of cases of untreatable or late-stage breast cancer in Hispanic women. Inequality in preventative measures between Hispanics and the general population is the health disparity that this project will attempt to address. Studies focusing on the health disparities of the Hispanic population continue to be vital in San Antonio as the Hispanic population continues to increase there (and the rest of the nation).

**Student Role/Experimental Designs/Methods:**

**Student Role:** As a participant, I will observe research related activities for two specific studies, including recruitment of patients by the patient navigator, development of educational materials, data cleaning and preparation for analysis, creation of reports, etc., and provide support in study research related activities such as literature review searches and data entering. In addition, I will participate in study-related meetings and receive specific research training tailored to my needs, including: Introduction to research (types of research, research components etc.), problem identification and research topic selection, literature review, research objectives, research methods (study design, study population, sample size, methods for data collection, etc), budget, timetable and reporting.

**Experimental Designs:**

Two basic projects will be partaken in during the program, both dealing with breast cancer screening in Latina women.

The first will be a randomized controlled trial involving Breast Cancer patients from the Cancer Therapy and Research Center at UTHSCSA. The project, although a continuation of a further study being partaken over the last couple of years, will last 8-10 weeks from Late May of 2013 till the end of June 2013. The study is being done with the hope that it will increase self-efficacy and informed decision making in entering breast cancer clinical trials, with those receiving the more interactive, technology infused interventions having a higher acceptance rate that the control groups. The control group at this point in time numbers 112, while the interventional group numbers 200. The study randomizes Latina breast cancer patients from the CTRC to an intervention or usual care control group. The intervention group will receive three components: 1) a culturally sensitive and individually tailored, 20-minute computer-based video; 2) a bilingual, low literacy brochure that encourages patients to communicate with family and friends; and 3) support from a community health worker. The usual care control group will receive usual-care NCI breast cancer clinical trial information materials. Obvious problems with the study include the negative stigmas of clinical trials that patients often have, as well as limited number of breast cancer patients for the study.

The second project is part of a larger federal study (Feasibility Studies for Collaborative Interaction for Minority Institutions/Cancer Centers), focusing on genetic testing for breast cancer on understanding the decision-making process among Latinas. Genetic testing for breast cancer may facilitate better-informed decisions regarding cancer prevention, risk reduction, more effective early detection, and better determination of risk for family members. To uncover
reasons for Latinas’ low testing participation, this study explores the awareness, attitudes, and behavioral intentions to undergo genetic testing among average-risk Latinas in San Antonio. This project is using qualitative techniques to assess decision-making among Latinas regarding: 1) knowledge, attitudes, and behaviors related to breast cancer genetic testing; 2) behavioral intentions to undergo genetic testing; 3) relationship between proportional (numeric) understanding of the risk and attitudes towards genetic testing; and 4) perceptions of self- and collective efficacy to face the challenges posed by having a genetic predisposition to breast cancer and its relationship with intentions to undergo testing. Participatory techniques are being used to develop and adjust research instruments, assuring appropriate community input and inclusion of all aspects that may be relevant to the community. Eight focus groups will be conducted to evaluate current knowledge and behavior, understanding of numeric risk proportionality, as well as attitudes and outcome and self- and collective efficacy expectations related to genetic risk and genetic testing.
Work Cited:
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- Tambor, Ellen; Rimer, Barbara: Genetic testing for breast cancer susceptibility: Awareness and interest among women in the general population. American Journal of Medical Genetics Volume 68, Issue 1, pages 43–49, 10 January 1997