

Improving Breast Cancer Screening Awareness Among Indian Women Through an Education Module In-Service

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Introduction & Background

- ❖ Breast cancer is the most common cancer among women and is a leading cause of cancer morbidity and mortality for women
- ❖ One in every eight women will develop breast cancer by the age of 75
- ❖ Early breast cancer detection via mammogram screening is crucial in decreasing breast cancer morbidity and mortality
- ❖ Indian immigrant women have been identified as having one of the lowest rates of breast cancer screening
- ❖ The underutilization of breast cancer screening services among Indian women has led to:
 - delayed breast cancer diagnoses
 - increased initial presentations with advanced forms of breast cancer
 - increased rates of mortality
- ❖ A major contributing factor to the low uptake of mammogram screening in this population can be attributed to knowledge deficits regarding cancer and cancer prevention
- ❖ The project site—a cultural community health organization in Southern California—currently does not offer any breast cancer or mammogram screening education to its members. The organization indicates that most women have limited awareness regarding breast cancer and breast cancer screening services. The organization estimates that majority of its women do not utilize mammogram screening services as recommended by the American College of Obstetricians and Gynecologists (ACOG) guidelines

Purpose & Aims

Purpose: to develop, implement, and evaluate the effects of an evidence-based education module, which will be provided to Indian women from a cultural community health organization, to determine if it results in increased breast cancer screening and prevention awareness and increased satisfaction regarding breast cancer awareness

Aim 1: Modify an existing, evidence based, and validated educational module regarding the prevalence of breast cancer, lifestyle behaviors that help reduce breast cancer risk, and the importance of mammogram screening that will be evaluated and critiqued by 3 clinical experts during Summer 2021, as measured by participation

Aim 2: Implement an in-person educational module to Indian women aged 40-70 years in a California cultural community setting over a 12-week period during Fall 2021, as measured by a change in the pre/post Breast Cancer Awareness Satisfaction Survey scores during Fall 2021

Aim 3: Increase Indian women's awareness regarding the prevalence of breast cancer, lifestyle behaviors that help reduce breast cancer risk, and the importance of mammogram screening after participation in an educational module, as measured by a change in the pre/post Breast Cancer Knowledge Test survey scores during Fall 2021

Methods

- Design:** Pretest-Posttest Intervention quality improvement project
Setting: cultural community health organization in Southern California
Sample: 20 participants; Punjabi speaking Indian women aged 40-70 who are members of the cultural health organization and volunteered to partake in the study
Intervention:
- ❖ A breast cancer screening awareness education curriculum from Dr. Han's published study was used to deliver the material in Punjabi
 - ❖ Offered in one two-hour educational in-service session at the project site
 - ❖ Assessed breast cancer screening awareness and satisfaction before and after the intervention
 - Followed-up with participants 60 days after the intervention
- Measurement:**
- ❖ Breast Cancer Knowledge Test Survey
 - A validated and reliable 17-item True/False assessment measuring breast cancer screening and prevention knowledge
 - ❖ Breast Cancer Awareness Satisfaction Survey
 - A validated and reliable 10-item Likert Scale measuring satisfaction with breast cancer screening and prevention awareness

Results

- ❖ Out of 20 participants, 20 completed all pre and post surveys, including all items on both tests, for a 100% response rate. The average age of participants was 50.55 years with a standard deviation of 6.20 years. Punjabi was the primary language for all participants. Sixty-five percent of the participants reported never having a mammogram done before
- ❖ **Aim 1**
 - Successful development of an evidence-based practice educational module in-service attended by twenty participants. No statistical analysis was conducted.
- ❖ **Aim 2**
 - All 20 participants reported a higher knowledge score post-intervention on the Breast Cancer Knowledge Test Survey
 - Prior to the intervention, the average number of correct answers out of 17 was 4.50 (26% total correct) with a standard deviation of 1.19. Following the intervention, the average number of correct answers out of 17 was 13.40 (79% total correct) with a standard deviation of 1.47
 - Using a paired sample t-test in SPSS, this increase in correct responses was found to be a statistically significant change ($p < 0.001$)
- ❖ **Aim 3**
 - All 20 participants reported a higher satisfaction score post-intervention on the Breast Cancer Awareness Satisfaction Survey
 - Prior to the intervention, the average response was a 1.90 with a standard deviation of 0.35. Following the intervention, the average response the average response on was a 4.48 with a standard deviation of 0.27
 - Using a paired sample t-test in SPSS, this increase in satisfaction of knowledge and awareness was found to be a statistically significant change ($p < 0.001$)

Table 1: Pre and Post Intervention Breast Cancer Knowledge Analysis

SUBSCALE	PRE-INTERVENTION MEAN (SD)	POST INTERVENTION MEAN (SD)	P-VALUE
BREAST CANCER KNOWLEDGE & AWARENESS	4.50 (1.192)	13.40 (1.465)	<0.001

Table 2: Pre and Post Intervention Satisfaction regarding Breast Cancer Awareness

SUBSCALE	PRE-INTERVENTION MEAN (SD)	POST INTERVENTION MEAN (SD)	P VALUE
SATISFACTION WITH BREAST CANCER AWARENESS	1.900 (0.3479)	4.475 (0.2712)	<0.001

Figure 1: Pre/Post Mean Scores from Breast Cancer Knowledge Test Surveys

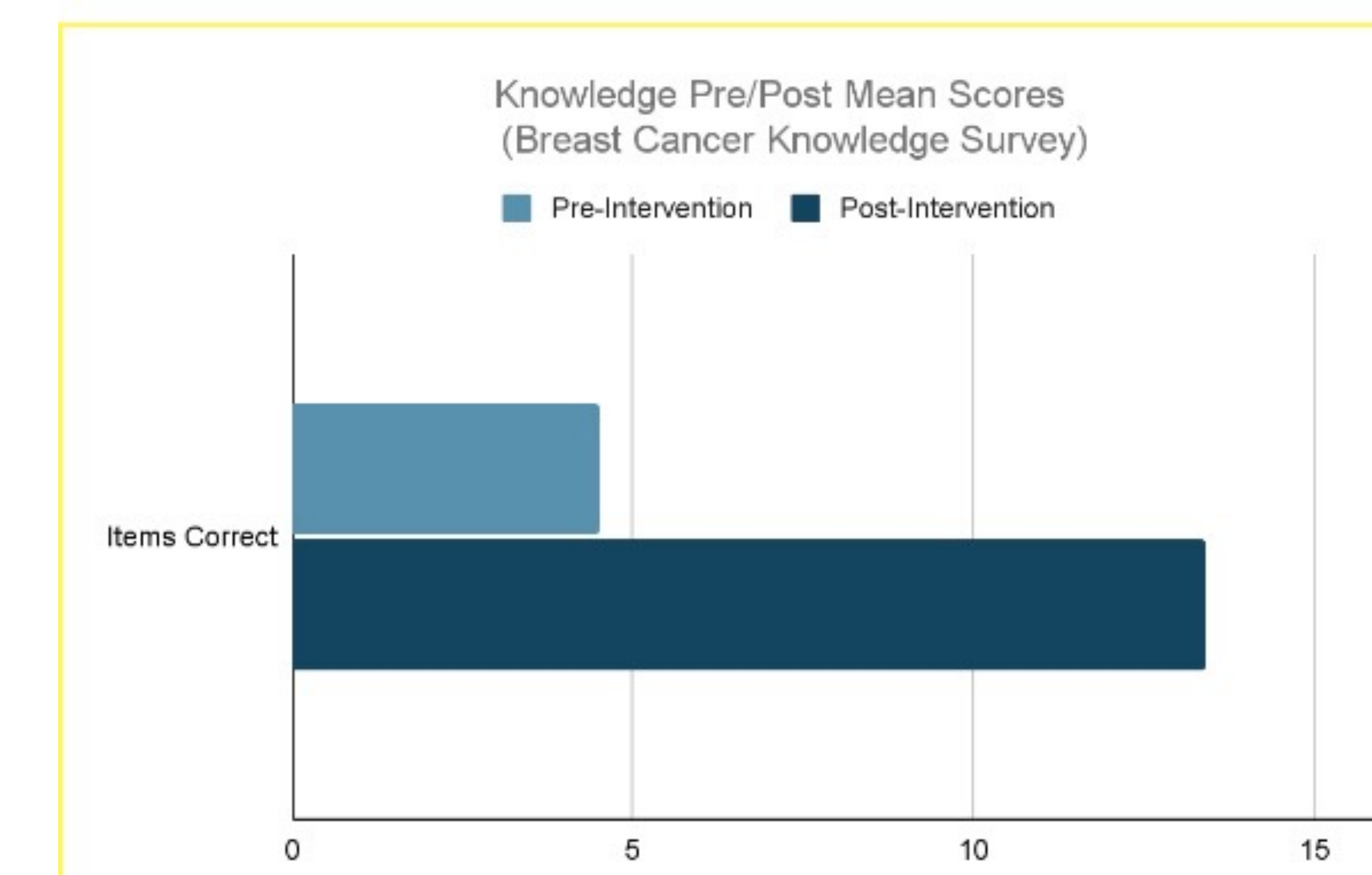
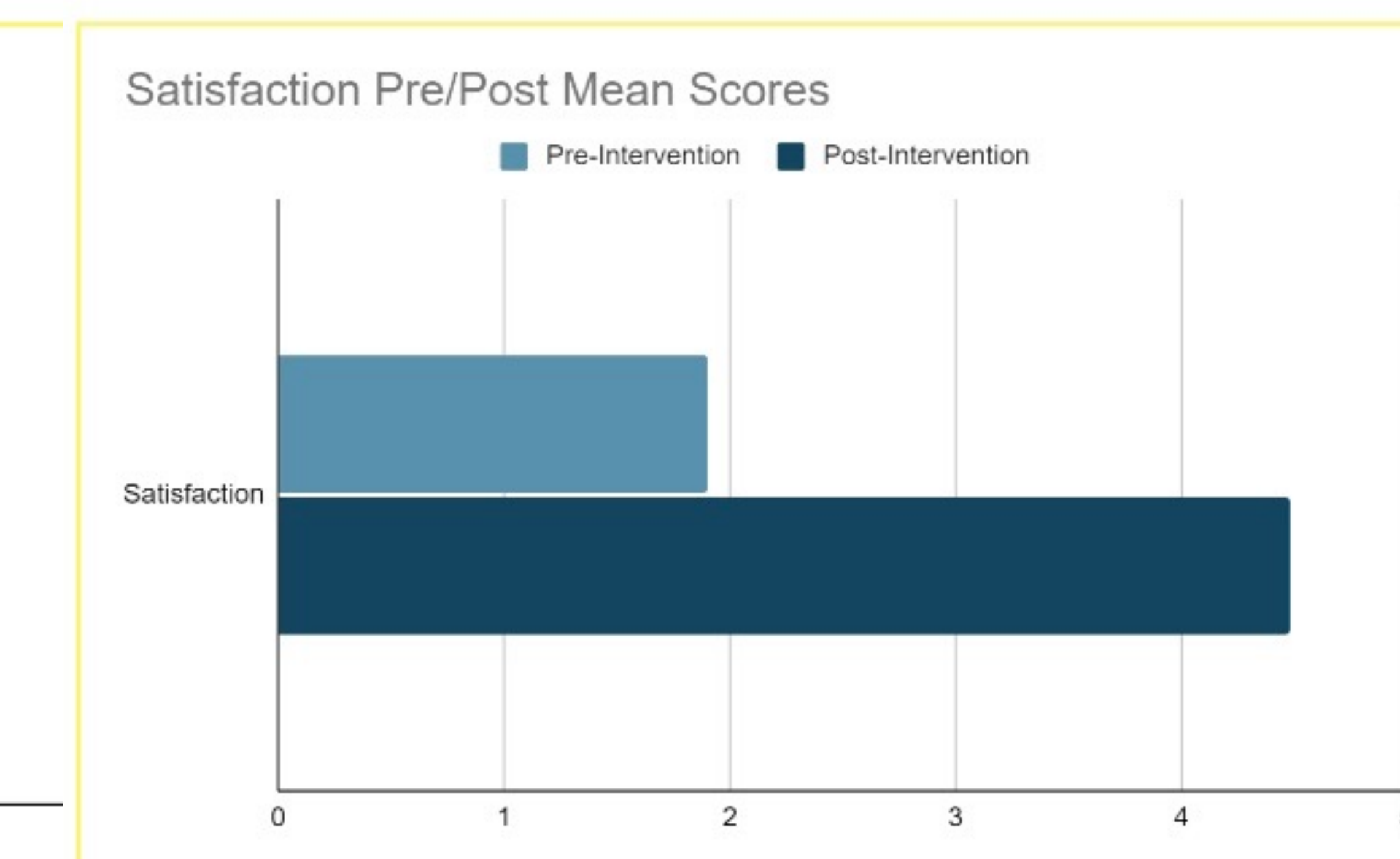


Figure 2: Pre/Post Mean Scores from Pre and Post Satisfaction Surveys



Conclusion & Dissemination

Conclusion

- ❖ Statistically significant improvement in participants' awareness regarding breast cancer screening and prevention were obtained by implementing this breast cancer education module. A health literacy focused breast cancer screening education module can successfully improve breast cancer screening awareness and satisfaction in Indian women.

Dissemination

- ❖ The data and results of this study will be shared with the director of the project site, the site leader, and the project mentor. The healthcare providers and program coordinator at the site will also be informed of the project's findings to determine if the breast cancer screening awareness education can be implemented into their project site. There are plans on publishing this project in a peer-reviewed journal to contribute to the healthcare literature among Indians.

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