

Effects of Educational Interventions in Facilitating Mammography Screening Among Asian American Women: A Meta-Analysis

Li-Ting Huang Longcoy, PhD, DrPH, RN, Chun-Yi Tai, PhD, RN, Joshua Longcoy, MPH, Judy Huei-yu Wang, PhD, Jingjing Yin, PhD, Logan Cowan, PhD, MPH, and Kelly L. Sullivan, PhD, FACE, FRSPH

PROBLEM IDENTIFICATION: This meta-analysis evaluated the effects of various types of educational interventions on increasing breast cancer screening uptake among Asian American women.

LITERATURE SEARCH: Web of Science, MEDLINE®, PubMed®, and Cochrane Library were searched for randomized controlled trials published from 2010 to 2020 of interventions developed to promote mammography uptake among Asian American women.

DATA EVALUATION: A random-effects model was used to estimate pooled effect sizes using relative risk measures. A funnel plot was used to assess publication bias.

SYNTHESIS: Seven studies were included in this review. Educational interventions identified were primarily culturally sensitive approaches combined with access-enhancing, individually tailored, or group-based approaches. The interventions were effective at increasing the receipt of mammography.

IMPLICATIONS FOR NURSING: This review provides insight into the importance of combining other approaches with educational interventions to increase their effectiveness for Asian American women. Future interventions can incorporate various approaches to enhance the ability of Asian American women to overcome barriers to breast cancer screening.

KEYWORDS mammogram; breast cancer; early detection; cancer disparities; cancer screening

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Breast cancer is the most frequently diagnosed cancer, accounting for an estimated 31% of new cancer cases and 15% of cancer deaths among U.S. women every year (Siegel et al., 2023). To lower the risk of dying from breast cancer, the American Cancer Society (ACS, 2021) and other leading health organizations suggest that women with an average risk of breast cancer have a mammogram at age 45 years or as early as age 40 years (Society of Breast Imaging, 2022). Increased awareness and participation in mammography screening can help women to identify breast cancer at an early stage, which, in turn, can improve survival through the availability of more treatment options at the time of diagnosis (ACS, 2021). However, despite the known benefits of early mammography screening, the potential for improved mortality and survival rates has not manifested in populations of Asian American women.

Asian American women have the lowest rate of mammography use across all U.S. racial and ethnic groups because of various barriers (ACS, 2019, 2022). The following types of barriers specific to mammography screening in Asian women have been identified: (a) economic (e.g., lower socioeconomic status, lack of insurance); (b) social (e.g., lack of recommendation and support for screening from physicians, family, and friends); (c) knowledge (e.g., misconceptions about cancer, lack of knowledge about breast cancer and the importance of screening); (d) logistical (e.g., lower English proficiency, extended wait times during mammography visits); and (e) emotional (e.g., fears, feelings of embarrassment) (Lu et al., 2012). Although these barriers are experienced similarly among multiple underserved groups in the United States, the strong cultural views held by