Determinants of Breast Cancer Screening in Arab American Women: A Comparative, Cross-Sectional Study

Manal Alatrash, PhD, RN  
School of Nursing, California State University, Fullerton, Fullerton, CA, USA

Purposes:
The purposes were to identify and compare breast cancer (BC) screening rates in three Arab American women (AAW) subgroups and to investigate which of the study variables, age, country of birth, religion, marital status, perceived benefits and barriers, and knowledge regarding BC screening could act as determinants of BC screening in this population. Arab women in the United States have significantly lower BC screening rates than other ethnic minorities although Arab women present with advanced BC at younger ages. This population has been understudied; therefore, attitudes and behaviors of AAW towards BC screening are not well-understood (Hasnain, et al., 2014; Padela, 2015; Semaan, 2015). Sociodemographic characteristics, knowledge, and cultural and religious beliefs were found to influence these women’s participation in BC screening (Ayyash, et al., 2018). Muslim and Christian women from various Arab countries may perceive health and screening practices differently especially that preventive care is not practiced in Arab countries (Doumit, et al., 2017). Although general cultural themes can be established, the variations existing between and within national groups of Arabs, including country of origin and religion, are important determinants to be considered in the healthcare system to reduce racial disparities and ensure social justice (ACS, 2017; Ayyash, et al., 2018; Doumit, et al., 2017).

Methods:
In this comparative, correlational, cross-sectional study, a convenience sample of 316 Muslim and Christian AAW from Jordan, Lebanon and Egypt completed a survey that combined the sociodemographic variables and the Arab Specific-Culture Barriers instrument. Pender’s Health Promotion Model was employed to guide exploration of different biopsychosocial variables related to BC screening and predict the likelihood of engaging in screening behaviors.

Results:
When compared with the other study subgroups, Jordanian and Muslim women had the lowest mammography screening rates, 63.2% and 40.8% respectively. Egyptian women had the lowest rates of performing Breast self-examination (53.8%). Age ($\chi^2(2, N=316)=11.83, p = .003$) and country of birth ($\chi^2(3, N=316)=35.98, p < .001$) were found to be significantly associated with performing mammography. Additionally, Christian women were more likely to participate in BC screening than Muslim women (OR 0.5, 95% CI: 0.3-0.9, p=.01). These results highlight the important impact culture and religion has on these women’s health behaviors and their informed decisions to participate in screening. Generally, women who reported familiarity with the test (OR15.4, 95% CI: 5.6-40.8, p<.001) and possessed more knowledge about BC screening recommendations (OR12.07, 95% CI: 7-21, p<.001) had significantly greater
utilization of screening services. Age and knowledge were significant predictors of BC screening in the three AAW subgroups.

**Conclusion:**
This study successfully provided a better understanding of some of the variables that influenced AAW behaviors regarding BC screening. BC screening rates in AAW are still lower than those of other ethnic women in the US. Therefore, culturally-congruent care and awareness programs are to be developed to increase their knowledge and improve their participation and adherence to BC screening practices. Collaborating with religious leaders is imperative to empower this population and rectify cultural and religious misconceptions related to modesty, BC fatalism and feelings of shame and embarrassment. In addition, more research is still needed to understand why BC screening rates are not increasing in this population.

**Title:**
Determinants of Breast Cancer Screening in Arab American Women: A Comparative, Cross-Sectional Study

**Keywords:**
Breast cancer screening and preventive health, Ethnic minority populations and culture and religion

**Abstract Summary:**
This study highlights the significance of knowledge, culture and religion in preventive health and breast cancer screening in Arab American women, an ethnic minority with very low screening rates. Healthcare professionals need to consider such determinants of health to be able to reach out to this population.

**References:**

**Primary Presenting Author**

Manal Alatrash, PhD, RN  
California State University, Fullerton  
School of Nursing  
Assistant Professor  
Fullerton, California  
USA

**Author Summary:** A faculty in the doctoral program at California State University, Fullerton with a diverse clinical, academic, research and leadership background. An educator and researcher with expertise in women's health, oncology, and vulnerable populations. Specialization in culturally sensitive care and the impact cultural traditions and preferences has on patients' treatment decisions.