Breast and cervical cancer screening in Hispanic women: a literature review using the health belief model

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ABSTRACT

The aim of this study was to review published studies that examined factors influencing breast and cervical cancer screening behavior in Hispanic women, using the Health Belief Model (HBM). MEDLINE and PsycINFO databases and manual search were used to identify articles. Cancer screening barriers common among Hispanic women include fear of cancer, fatalistic views on cancer, linguistic barriers, and culturally based embarrassment. In addition, Hispanic women commonly feel less susceptible to cancer, which is an important reason for their lack of screening. Positive cues to undergo screening include physician recommendation, community outreach programs with the use of Hispanic lay health leaders, Spanish print material, and use of culturally specific media. Critical review of the literature using the theoretical framework of the Health Belief Model identified several culturally specific factors influencing cancer screening uptake and compliance among Hispanic women. Future interventions need to be culturally sensitive and competent.

INTRODUCTION

Despite advances in screening and treatment during the past several decades, breast and cervical cancer remain a major health problem for Hispanic women, as many women have never had a mammogram or Papanicolaou smear, or are not tested regularly.[1–3] Hispanic women have lower incidence rates of breast cancer than white women; however, they are more likely to have larger tumors or metastatic disease when diagnosed.[3] Low socioeconomic status, poverty, low levels of education, lack of knowledge, and acculturation have been established as reasons for the low

screening rates in Hispanic women. Cost of cytology and mammograms have been cited as problems for Hispanic women in the United States; however, this is unlikely a concern of Hispanic women living in Canada due to the universal health care system.

Breast cancer is the most common type of cancer among North American women and the second leading cause of cancer death. Mortality from breast cancer in women aged 50–74 years can be significantly reduced through screening programs (e.g., mammography) that detect the cancer in its earliest stage resulting in early treatment. Although mammography has increased among North American women in the last decade, patterns of underutilization have been observed among older, low-income, and ethnic minority women.[4–6]

Cervical cancer is also a common type of cancer among women, especially in women 20–39 years of age.[5] In several developed countries, the incidence of invasive cervical cancer has declined, which is largely attributed to early detection efforts. However, several subpopulations remain underscreened[1,6] Active young women, minority women with language difficulties, and women with specific cultural health beliefs are at risk for this disease.

The Hispanic community makes up about 5.5% of the total Canadian immigrant population, with much higher percentages in metropolitan cities such as Toronto. This literature review was carried out as part of a project which aimed to develop a health promotion program, including a brochure for Hispanic women living in Toronto. We reviewed published studies that examined barriers to cancer screening and factors/strategies that influenced cancer screening in Hispanic women, using the Health Belief Model (HBM). Researchers have recently focused on culturally based beliefs and attitudes that may affect cancer screening practices, to better eliminate known barriers and provide appropriate interventions.

METHODS

MEDLINE (1966–present) and PsycINFO (1984–present) databases were searched to identify relevant articles. The following keywords were used in different combinations: cancer screening, breast cancer, cervical cancer, barriers, Health Belief Model, Hispanic, Latinas. Reference lists of retrieved articles were also checked to identify additional articles.

Ethnicity is defined as a subgroup of people who share a common ancestry, history, or culture (e.g. geographic origins, family patterns, language, values, cultural norms). Latina is the most commonly used term to describe Hispanic women, although different terms are also used. Women in this ethnic group can be identified by language—mother tongue—(i.e., Spanish-speaking), ethnic origin (e.g., Latin, Central, and South American origins), or visible minority (e.g., Latin Americans). For the purpose of this paper, Hispanic women and Latinas will refer to Spanish-speaking women from Central and South America, and Spanish-speaking countries in the Caribbean.

Theoretical models are often used to understand and identify reasons for the low compliance rates for breast and cervical cancer screening among women. The HBM was used as a guideline to identify these factors. This model, which emerged in the late 1950s, was used as an exploratory model to assess why people did not use preventive health services (e.g., immunization services) and eventually to understand why people use or fail to use health services.[7] Many researchers now employ this model to guide the development of health interventions with the aim of changing behaviors.[8] The HBM has six fundamental constructs: perceived susceptibility, perceived seriousness, perceived benefits, perceived barriers, cues to action, and self-efficacy (see Table 1 for definition of each term).

Table 1. HEALTH BELIEF MODEL

Concepts	*Definition*	*Application*
Perceived susceptibility	One's opinion of chances of getting a condition	Define populations(s) at risk, risk levels; personalize risk based on a person's features or behavior; heighten perceived susceptibility if too low
Perceived severity	One's opinion of how serious a condition and its sequelae are	Specify consequences of the risk and the condition
Perceived benefits	One's opinion of the efficacy of the advised action to reduce risk or seriousness or impact	Define action to take; how, where, when; clarify the positive effects to be expected
Perceived barriers	One's opinion of the tangible and psychological costs of the advised action	Identify and reduce barriers through reassurance, incentives, assistance
Cues to action	Strategies to activate "readiness"	Provide how-to information, promote awareness, reminders
Self-efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action

LITERATURE REVIEW

Findings from the literature review are synthesized here according to constructs of the Health Belief Model.

Perceived Barriers

Studies with Hispanic women report fear of cancer, embarrassment, and limited English ability as major perceived barriers.

In Hispanic women, great fear of cancer is associated with extreme fatalism about the disease. Most believe that cancer cannot be cured, and a diagnosis is considered a death sentence. This fear leads to the avoidance of the subject and discussion of cancer.[9,10] As a result, educational programs are often avoided, contributing to lack of optimal knowledge of screening practices.[11–13] Many Hispanic women strongly believe that the fear of finding cancer would deter them from screening.[3] Several studies report that many Hispanic women would prefer not to know the diagnosis of breast or cervical cancer.[11–14] Hispanic women are afraid that they will not be able to cope with the disease. One research group noted that low-acculturated Mexican-American women expressed a stronger fear of cancer than did high-acculturated women.[15]

Researchers have found that Latinas hold more fatalistic attitudes about breast and cervical cancer.[13] This attitude stems from the belief that there is little an individual can do to alter fate or prevent cancer (often termed *fatalismo*). Latinas' specific beliefs about breast cancer may reflect, in part, the moral framework within which they may interpret disease. Latinas often believe that cancer is God's punishment for improper or immoral behavior.[14] Suarez and associates[16] noted that 48% of the Mexican-American women they surveyed thought that their chances of surviving cervical cancer were poor, and those who preferred to speak in Spanish tended to have more fatalistic attitudes. They often believe that there is nothing one can do to prevent breast or cervical cancer. This powerlessness may account for some of the anxiety associated with cancer.

A major barrier to cancer screening is culturally based embarrassment and similar emotions.[1,4,9,17,18] Embarrassment was a stronger predictor of screening

than perceived susceptibility and perceived benefits of early detection in a study conducted by Richardson and colleagues.[17] Embarrassment about discussion of private body parts and embarrassment at exposing private body parts during a physical examination may pose a barrier for some Hispanics, especially if examined by a male physician.[10,17] Accordingly, gender of the physician may determine breast and cervical cancer screening uptake and compliance in this community. Hispanic women may also be embarrassed to disclose personal information related to their sexual activity to another person besides their partner.

Limited proficiency in the language of the host country has also been identified as a barrier to cancer screening. This variable has been shown to provide a reliable prediction of the use of preventive health care among minority women.[18] Among Hispanic women in both Canada and the United States, the ability to speak English is positively correlated with utilization of cancer screening guidelines, especially among older Hispanics.[5,11] The inability to speak English fluently interferes with Hispanic women's ability to obtain important health information and to communicate with health professionals. Women speaking only, or mostly, Spanish are consistently less likely to be screened for breast and cervical cancer. Language difficulties can deter referral and impede delivery of medical care,[1] as few medical providers are able to fully communicate in Spanish and therefore are unable to convey the importance and need for a Papanicolaou smear or mammogram.

Perceived Susceptibility

A common emerging barrier to screening in Hispanic women is the belief that screening for breast and cervical cancer is unnecessary or not needed. A substantial proportion of women perceived Papanicolaou smears and mammography as unnecessary or diagnostic procedures, rather than preventive health measures, in a study conducted by Skaer et al.[19] Hispanic women do not view preventive health, such as cancer prevention, as a priority; as a result, they have an increased risk for diseases because of their curative rather than preventive health practices.[2] According to the 1990 National Health Interview Survey data, the response "not needed" was the largest barrier to mammography use among older Hispanic women.[20] Many women understand that mammography successfully detects breast cancer early, but they do not perceive their own vulnerability to breast cancer and do not see themselves at risk if they are asymptomatic or have no family history of the disease.[1]

Cues to Action

Many studies have identified positive cues to cancer screening in Hispanic women. These include physician recommendation, lay health workers, written materials, and media.

Physician recommendation is one of the most important cues to cancer screening. Physicians play a key role in informing women of the benefits of screening.[21] Richardson et al. [17] found that underscreening among Hispanic women was not due to lack of access; 96% of the women had visited a physician in the last year, but 82% said nobody had ever suggested a mammogram. In addition, the majority of women who had mammograms were referred by their physicians. Similar results were observed by Zambrana et al.[22] The respect for authority (*respecto*) is an important characteristic of Hispanic culture. Latinas consider doctors as powerful authority figures and have a tendency to listen to what doctors say, but rarely show self-initiated health care behaviors. The role of physician is especially important for older minority women.[20,23]

Community outreach strategies are the most common health promotion, and probably most effective strategies employed by health care workers, researchers, and health promotion officers. Community outreach strategies include the use of appropriate language materials, involvement of lay health workers, and presentations at community and workplace settings. Lay health workers are trained personnel from the Hispanic community whose main job is to educate women on the benefits of Papanicolaou screening and mammography to reduce perceived barriers to screening. Several studies report that the involvement of the community is effective in the development, planning, and delivery of the screening programs.[11,24,25] Impressive results in cervical and breast screening behaviors were obtained in the Hispanic community living in California.[26] In Ontario, lay health workers have been found to be important positive cues to action for Hispanic women.[5]

Churches are also important vehicles to reach Hispanic women. Castro et al.[27] reported positive church involvement in cancer screening practices of Latina women. Other researchers have found that churches provide a social influence to participation in cancer screening among Hispanic women.[10,11,28] The "Companeros en la Salud" program delivers educational programs at churches, and preliminary results are expected to show an increase in Papanicolaou smears and mammography among Latina women.

Written materials are also used as cues to action. Specific educational materials (e.g., brochures, community newspapers), usually apart from community outreach programs, are effective in providing information to Hispanics if they are culturally sensitive, and written in Spanish at a grade 6 reading level to improve understanding among low-literacy individuals.

One effective way to reach Hispanic women may be through media-based public health campaigns. However, such programs are effective only when delivered and implemented in a culturally meaningful and sensitive manner. Vellozzi et al.[29] indicate that Hispanic women may be more receptive to media messages than are other ethnic groups. In "A Su Salad" program, media messages (TV, radio, and newspaper) have been integrated successfully with community-based outreach.[30] Salazar[3] indicated that the media increased Hispanic women's willingness to openly discuss breast cancer.

Perceived Seriousness, Self-efficacy

Most studies have not tested the perceived severity/seriousness of the HBM because almost all women consider breast and cervical cancer to be serious illnesses. Self-efficacy has been recently added to the HBM; as a result, many researchers have not included this variable in breast and cervical cancer screening research.

Caveats to This Review

As the focus of this literature review was to examine culture-specific beliefs and attitudes, extrapolation of our findings should incorporate other socioeconomic and structural barriers to maximize future programs or research outcomes. Furthermore, most of the published studies are conducted with Mexican-American populations. Hence, behaviors and beliefs patterns may vary within Hispanic subpopulation, such as Cubans and Puerto Ricans. Also, cross-country differences in characteristics of Hispanic populations need to be considered in using these findings in future program development.

CONCLUSION

This literature review summarized breast and cervical cancer screening beliefs and attitudes of Hispanic women using the HBM. Perceived barriers (e.g., fear of cancer, embarrassment, fatalistic views of cancer, and language), as well as perceived susceptibility (e.g., belief that screening tests are not necessary/needed) impede screening. Physician recommendations and community outreach programs are effective strategies to increase breast and cervical cancer screening uptake among Hispanic women.

The specific findings of this literature review indicate that cancer-screening programs should use multisectorial approaches to address culture-specific issues and provide culturally sensitive and competent services.

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