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A tailored intervention to promote breast cancer screening among South Asian immigrant women

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Abstract

This study developed and evaluated a socioculturally tailored intervention to improve knowledge, beliefs and clinical breast examination (CBE) among South Asian (SA) immigrant women. The intervention comprised a series of socioculturally tailored breast-health articles published in Urdu and Hindi community newspapers. A pre- and post-intervention design evaluated the impact of the mailed articles among 74 participants. The mean age of participants was 37 years (SD 9.7) and they had lived 6 years (SD 6.6) in Canada. After the intervention, there was a significant increase in self-reporting 'ever had' routine physical checkup (46.4–70.8%; $p<0.01$) and CBE (33.3–59.7%; $p<0.001$). Also, the total summed scores of accurate answers to 12 knowledge items increased (3.3–7.0; $p<0.001$). For constructs of health belief model, participants rated their level of agreement for a number of items on a scale of 1–4 (disagree to agree). After the intervention the following decreased: misperception of low susceptibility to breast cancer among SA immigrant women (3.0–2.4; $p<0.001$); misperception of short survival after diagnosis (2.7–1.8; $p<0.001$); and perceived barriers to CBE (2.5–2.1; $p<0.001$). Self-efficacy to have CBE increased (3.1–3.6; $p<0.001$). The change scores of five predictor variables were entered in a direct logistic regression to predict the uptake of CBE among participants who never had it prior to the intervention. The model, as a set, was statistically reliable [$\chi^2(5, n = 48) = 14.2, p<0.01$] and explained 35% of variance in the outcome; perceived barriers remained an independently significant predictor. The results support the effectiveness of written socioculturally tailored language-specific health education materials in promoting breast cancer screening within the targeted population. Future research should test the intervention in other vulnerable populations.

Keywords: Breast cancer; Health promotion; Intervention; Health belief model; Stages of change; South Asian immigrants

Introduction

Although screening facilitates the early detection of breast cancer and improves prognosis (Garfinkel & Mushinski, 1999), many women in North America and Europe remain underscreened. Several studies report that immigrant women have lower breast cancer screening rates (Maxwell, Kozak, Desjardins-Denault, & Parboosingh, 1997; Maxwell, Bancej, & Snider, 2001). This gap is of particular concern for countries with increasing population diversity such as Canada, USA, United Kingdom, and New Zealand. In Canada, 18% of the population consists of first-generation immigrants with higher proportions in metropolitan areas such as 43% in Toronto (Statistics Canada, 2003). There is a general consensus that gaps in breast cancer screening rates need to be addressed by effective health promotion interventions aiming to reach vulnerable immigrant subpopulations.

Migration is often associated with a period of adjustment and re-orientation. Many immigrants encounter economic, systemic, information, cultural, and

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linguistic barriers to access health services (Reitz, 1995). The extent of these challenges is often higher for immigrant women due to their multiple care-giving responsibilities that limit opportunities to interact with the host population. Furthermore, challenges to optimal health care access are intense for women migrating from traditional cultures with rigid patriarchal norms and gender roles. For instance, George and Ramkissoon (1998) observed that South Asian (SA) immigrant women's childcare and household responsibilities are major reasons for neglecting self-health, especially for preventive practices when health benefits may seem distant. Other studies with SA immigrant women report cultural tendencies of strong familial orientation that result in low priority for self-care in the presence of competing demands (Bottorff et al., 1998; Chandarana & Pellizzari, 2001). This vulnerability is also manifested in studies reporting low cancer screening rates among SA immigrant women (Choudhry, Srivastava, & Fitch, 1998; Gupta, Kumar, & Stewart, 2002).

Review of the literature on breast cancer and screening among SA immigrant women reveals certain culturally based norms, beliefs and values that are likely to hinder their uptake of breast cancer screening (Bottorff et al., 1998; Johnson et al., 1999; Choudhry et al., 1998). For instance, tremendous fear of the disease is suggested in women's avoidance of the word "cancer" and preference to use "terminal life disease". The latter is also an expression of a culturally based fatalistic belief in which suffering is viewed as inevitable due to fate (*karma*). Additionally, SA women seem to view breast cancer as a disease specific to western women while North American epidemiological evidence suggests convergence of the breast cancer age-standardized mortality rates of Asian migrants with the host population over time (Kliewer & Smith, 1995). In addition to perceptions of high seriousness of breast cancer and low self-susceptibility, studies report SA women's barriers to have breast cancer screening including a cultural taboo to touch one's body, and modesty about having the breast examination or even discuss it with family members or health professionals. Evidence also suggests that SA immigrant women have limited knowledge about available breast cancer screening procedures and resources and misinformation about its causes and risk factors (Choudhry et al., 1998; Kernohan, 1996). There exists a strong need to promote breast cancer screening knowledge and practices among SA immigrant women.

Although many interventions have been developed for physicians and patients to promote breast cancer screening (Mandelblatt & Kanetsky, 1995; Olson, Chapman, Thurston, & Milligan, 1997; Bonfill, Rivero, Moreno, & Rue, 1995), little is known about their effectiveness for immigrant women. Standardized interventions are universally directed with limited relevance to a particular individual or group (Dijkstra & de Vries, 1999). Some interventions have specifically targeted immigrant communities but have often failed to incorporate evidence-based health promotion approaches. The disparity is alarming particularly when the current era of health promotion emphasizes not only 'targeting' but also 'tailoring'. Tailoring or sociocultural sensitivity refers to the development of health messages, materials, and interventions according to the cultural beliefs and characteristics of the targeted population without which interventions can produce only incomplete results (Pasick, D'Onofrio, & Otero-Sabogal, 1996; Vega, 1992). Dijkstra and De Vries (1999) suggest that tailored interventions are more effective because the message is adapted to prior knowledge about the targeted individuals and, hence, it contains directly relevant information which increases attentiveness and limits defensiveness to messages (de Nooijer, Lechner, & de Vries, 2002). However, interventions towards immigrant populations have not yet integrated the concept of tailoring.

This study aimed to develop and evaluate a socioculturally tailored intervention to promote breast cancer screening among SA immigrant women from India, Pakistan, Sri Lanka, and Bangladesh. Our intervention consisted of a series of 10 breast-health articles published in Urdu and Hindi newspapers that were mailed to the study participants. We applied the concept of tailoring at three levels: the selection of an appropriate method to present the information, the content of the message, and behavioural readiness to uptake breast cancer screening.

Health promotion through multicultural newspapers is a social marketing strategy that reaches groups at risk and is consistent with the desire of most immigrant communities to emphasize their uniqueness and value their differences (McAdoo, 1993). Furthermore, this strategy is likely to convey the message not only to women but also to entire family units. This addresses an important aspect in the lives of SA women where family orientation is a core value and women may not seek medical advice without the sanctioning and encouragement of important family members or close friends (Bottorff et al., 1998; Choudhry, 1998).

The content of the health articles was tailored to the sociocultural milieu of the SA immigrant women. A literature review identified factors associated with cancer screening practices of SA women using the health belief model (HBM) (Hochbaum, 1958; Strecher & Rosenstock, 1997). Over the last five decades, HBM is one of the most widely used conceptual frameworks in health behaviour explanatory and predictive research (Strecher & Rosenstock, 1997). The HBM is also recommended for the development of health behaviour interventions (Janz & Becker, 1984; Elder, Apodaca, Parra-Medina, & de Nuncio, 1998; Stein, Fox, Murata, & Morisky, 1992).