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Promoting Health Literacy About Cancer Screening Among Muslim Immigrants in Canada: Perspectives of Imams on the Role They Can Play in Community

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Abstract

Purpose: Immigrants tend to have lower rates of cancer screening than non-immigrants in Canada. Inequity in screening rates may stem from religious factors, which religious leaders can influence. This study aimed to explore the knowledge and attitudes held by Muslim religious leaders about cancer screening, as well as the role religious leaders perceive they can play in improving cancer screening health literacy among South Asian Muslim immigrant women. **Methods:** We conducted interviews with 8 Muslim religious leaders in Calgary, Canada. Participants' knowledge and attitudes were inductively summarized using descriptive analysis, while practices were deductively thematically analyzed using the Socioecological Model and the Communication for Development approaches. **Results:** We found participants mostly had some knowledge of cancer, but lesser knowledge of different screening tests and of low screening rates among immigrants. Participants proposed that their role as a speaker, access to facilities and community networks, and collaboration with universities and healthcare professionals could help overcome religious misinterpretations and promote cancer screening among South Asian Muslim immigrant women. **Conclusion**: Religious leaders were highly supportive of incorporating health messaging into faith-based messaging. Future work should focus on implementing the practices recommended in this study with South Asian Muslim immigrant women's voices at their center.

Keywords

cancer screening, health literacy, religious leaders, Muslim imam, health promotion

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Introduction

Cancer is the leading cause of morbidity and mortality in Canada.[1] Early detection and diagnosis of cancer greatly increases the chance for targeted treatments to lead to remission and improve patient outcomes.[2] Simple population-level cancer screening tests are essential for early detection of cancer cases.[2] Cancer screening tests are a type of secondary prevention that can help to stagnate, inhibit, or reverse carcinogenesis before any symptoms appear.[3,4]

Studies have shown that immigrants are half as likely to undergo cancer screening than Canadian born residents.[5,6] Among immigrant ethnicities, South Asian women report the lowest rates of cancer screening, as low as 22%, while their Canadian counterparts report rates as high as 79%.[6]

Previous research from Canada and the United States has reported that inequity in cancer screening rates can stem from cultural and religious factors, such as unavailability of female physicians, lack of knowledge about preventative healthcare, dependency on male partner for transportation, ideologies

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about privacy and modesty of the body, and fatalistic beliefs.[7-9] In Muslim communities, religious leaders help interpret Islamic sources of knowledge to elucidate which decisions and behaviors are consistent with Islam.[10] Some previous research has reported on the role of religious leaders in healthcare, demonstrating that the health literacy of religious leaders can influence the health literacy and behaviors of their congregants, such as by alleviating negative religious coping (e.g., viewing illness as a punishment from God).[8,10-13] As research on religious leaders' involvement in health behaviors is still largely preliminary, there is an opportunity to explore Muslim religious leaders' perspectives on their involvement in strategies to help improve cancer screening among South Asian Muslim immigrant women.

Guiding Theory

To organize this study, we used the Knowledge, Attitudes, and Practices (KAP) model, the Socioecological Model (SEM), and Communication for Development (C4D). The KAP model is used in health literacy and is based on the notion that knowledge positively influences attitude and attitude in turn influences practice.[14] The SEM is a theory-based framework for understanding the interactive levels of a social system that determine practices/behavior.[15] The 5 nested levels of the SEM (intrapersonal, interpersonal, institutional, community, and policy) can be engaged as leverage points for improving determinants of health literacy and behavior.[15] C4D is a systematic, planned, and evidence-based approach.[16] C4D supports behavior and social change strategies that produce positive change within a social system.[16] C4D engages communication at multiple levels of a community in order to identify practices that empower collective action and enhance wellbeing.[16] C4D approaches can include media campaigns, social marketing, printed materials, and other education delivery methods.[16]

The KAP model alone tends to limit information to the individual and community levels without adequately investigating the context or social system in which certain population groups face inequities.[16] Therefore, this study expanded the scope of information and analysis by using the SEM to conceptualize the social system that informs Muslim religious leaders' perceived practices for promoting cancer screening among South Asian Muslim immigrant women. To identify feasible practices that produce positive change in this social system, we employed C4D because for every level in the SEM, there are corresponding C4D approaches for achieving behavioral and social change.[16]

Methods

Study Participants

An imam is a Muslim religious leader whose responsibilities may include leading sermon, advising on Islamic law, or being a director of a mosque. The inclusion criteria in this study were that participants be an imam who regularly engages with members of the South Asian community, is over the age of 18, and is fluent in English, Bangla, Urdu, or Hindi (languages the interviewers can speak).

For participant recruitment, we created a list of all imams from mosques and major Muslim organizations in Calgary, Canada. Since imams are a particular subset of the Muslim community, we directly sent posters and emails to relevant organizations and individuals. We also used the "snowballing method," which involves asking existing participants to identify other participants who may fit the inclusion criteria.[17]

Data Collection

We conducted face-to-face semi-structured interviews with participants. The interview guide was informed by consultation with the research team and pilot work with 1 imam. The interview guide consisted of basic demographic questions as well as open-ended questions. The latter were organized using the KAP model and inquired about: imams' knowledge of cancer, cancer screening, and low screening rates among Muslim South Asian immigrant women; imams' attitudes toward cancer, cancer screening, and religious factors as potential barriers to screening among South Asian Muslim immigrant women; and, imams' perceived practices for improving cancer screening rates among South Asian Muslim immigrant women. Questions about imams' practices were further structured using the 5 levels of the SEM since the SEM corresponds to the C4D approaches for behavioral change. Field notes were taken during the interviews and interviews were audio-recorded, ranging from 45 min to 1 h. The interviewer later transcribed the interviews verbatim and manually coded the transcripts, with continuous discussion with the research team.

Data Analysis

We inductively analyzed participant responses for the "knowledge" and "attitudes" portions of the interviews using descriptive analysis.[18] For the "practices" portion, we completed deductive thematic analysis of participant responses.[18] We extracted and synthesized participant responses for the "practices" portion using C4D approaches to group recurrent, similar codes into subthemes. Identified subthemes were grouped into larger overarching themes or communication strategies. As a way of member checking, we returned the synthesized data to participants with the opportunity to add to, change, or remove any parts they believed did not reflect their experience. Ethics approval for this study was granted by the University of Calgary Conjoint Health Research Ethics Board (CHREB).

Table 1. Participant Characteristics Represented as N (%).

Characteristic	Results	N = 8
Age	26-35	2 (25)
	36-45	4 (50)
	46-55	2 (25)
Gender	Male	8 (100)
Highest level of education	University	8 (100)
Employment status	Employed full-time	8 (100)
Years of residence in Canada	≥20 years	6 (75)
	<5 years	2 (25)
Religious education	Institutionalized	7 (88)
	Non-institutionalized	1 (13)

Results

Participant Characteristics

All mosques and faith-based organizations in Calgary, Canada were contacted, and all responded, for a total of 15 contacted imams. Eight imams participated in this study. The demographic characteristics of the participants are shown in Table 1. Half of the participants were between the ages of 36-45. All participants held university-level education and were employed full-time. Seven participants held institutionalized religious education. Participants were classified as having institutionalized education if they held a post-secondary degree in Islamic studies. Six participants had resided in Canada for 20 years or more.

Knowledge

We summarized the responses given by participants when asked about their knowledge of cancer, cancer screening, and religious factors as potential barriers to cancer screening among South Asian Muslim immigrant women into 5 categories: (i) knowledge of cancer; (ii) knowledge of early detection and cancer stages; (iii) knowledge of cancer screening practices; (iv) knowledge of mammograms, stool tests, and Pap tests; and (v) awareness of low cancer screening rates among South Asian Muslim immigrant women in Canada.

Knowledge of cancer. Half of the participants' knowledge of cancer was basic; they indicated they knew cancer to be a common, often deadly disease that they wished to know more about. Two of the 8 participants had previously been involved in cancer awareness initiatives—one had organized a breast cancer screening campaign in the past and the other had recently organized a children's cancer care fundraiser. These 2 participants showed they had moderate knowledge of cancer as they were aware of cancer's general prognosis:

> *'It's when something starts growing in the body, and as a result of it, organs start shutting down and stop functioning properly until a person eventually dies.' (P2)*

Two other participants' knowledge of cancer was good. They knew about cancer as an occurrence where cells mutate and multiply out of control, and about the difference between malignant and benign tumors. One of these 2 participants worked in the medical field, and the other participant's knowledge stemmed from a close family member's lived experience with cancer.

Knowledge of early detection and cancer stages. Six participants' knowledge of early cancer detection through cancer screening programs was good. They knew about the different stages of cancer and the importance of detecting diseases like cancer early through screening:

> *'At stage one, that's probably the best chance of preventing [cancer], its growth, or curing it in terms of preventing it altogether.' (P2)*

All of these 6 participants had been involved in past discussions about cancer screening, either with congregants, family members, or doctors. One participant knew about early detection generally as a tool to indicate there is something wrong for further investigation, demonstrating moderate knowledge about early detection. One participant had minimal knowledge about early detection which he based on his personal experience with blood tests as a tool to check for diseases, but he was not aware of other modalities used for cancer screening.

Knowledge of cancer screening practices. Five participants were largely unaware of the recommended screening intervals and public health bodies governing screening practices, for example the Canadian Cancer Society. Three participants' knowledge of cancer screening practices was moderate; they were vaguely aware of screening intervals:

> *'After 40 or after a certain age, you know, they do test for colon cancer, prostate cancer.' (P3)*

These 3 participants were also familiar with some agencies that are involved in regulating and advertising cancer screening programs:

> *'People receive letters from the hospital, from the organizations for the screening test, a cancer screening test.' (P5)*

Knowledge of mammograms, stool tests, and Pap tests. Five out of the 8 participants had no to minimal knowledge about mammograms, Pap tests, and stool tests. They either explained they were unfamiliar with these tests, or knew generally the body parts associated with each:

'I'm assuming [stool tests] have something to do with either our intestines or rectum or something like that. The Pap test, I think, is that for the cervix?' (P2)

Two participants had moderate knowledge of cancer screening tests as they were able to describe the importance of, and steps involved in, some of these tests:

'We can tell a lot, through our blood, our stool, our urine and the person if, if a doctor would suspect that you know, something was wrong. Perhaps the colon area or in the digestive area, they would ask the patient to voluntarily take a stool sample, and it would be given to the lab services.' (P3)

One of these 2 participants explained their knowledge stemmed from previously helping a thesis student write her paper on healthcare access, and the other participant's knowledge stemmed from a family member's experience with cancer screening tests. One participant had good knowledge of mammograms, Pap tests, and stool tests as they worked in the medical field.

Awareness of low cancer screening rates among South Asian Muslim immigrant women in Canada. Five of the 8 participants were not aware of low cancer screening rates among South Asian Muslim immigrant women, saying either they had not heard about this issue, or they had never discussed it with anyone before. Two participants had minimal knowledge about the low cancer screening rates, and they both likened this issue with other health disparities between immigrant and non-immigrant groups that they were aware of. One participants' knowledge of the low cancer screening rates was good, as they worked in the medical field.

Attitudes

We organized religious leaders' responses regarding their attitudes toward cancer and cancer screening, as well as religious factors as potential barriers to cancer screening among South Asian Muslim immigrant women, into 3 categories: (i) support of cancer screening; (ii) impact of religion on cancer screening; and (iii) involving imams to improve cancer screening rates among South Asian Muslim immigrant women.

Support of cancer screening. All participants stated that they supported the inclusion of cancer screening messaging into faith-based messaging, whether delivered through sermons, individual conversations, group discussions, or other dialog. Participants indicated that combining religious messages with academic information about health issues was most effective in the past and would be most desired in future efforts. Most participants mentioned Prophet Muhammad's (PBUH) use of preventative health practices[19] as encouragement for cancer screening in Islam, emphasizing that preventative measures are superior to reactive or acute treatment.

'Prevention is always better than treatment, right. And there's a [saying] Prophet PBUH said, actually. He used to call a, uh, herbalist during his time to do screening. And then it was found that people, because in early prevention stages they used to do that, so most people they didn't get sick. And then he used to recommend using herbals, herbs, you know, natural treatment. So, it could be Western, the treatment or could be herbal treatment, but the point is he, Prophet PBUH, he did that.' (P3)

Impact of religion on cancer screening. All participants emphasized that Islam encourages individuals to prioritize their health:

'Without health, one cannot excel in their religion [. . .] after faith the greatest wealth is health. There's a legal maxim, it says prevention is better than a cure. The Prophet PBUH said [Arabic] for every disease there is a cure. If you just look at the health campaign the Prophet PBUH started, when he arrived in Medina, when it comes to water, purity, cleanliness, oral hygiene – it's all health related.' (P3)

Participants repeatedly emphasized that Islamic teachings especially encourage prevention over treatment as this was practiced by the Prophet Muhammad (PBUH) himself.[19] Three participants noted that misinterpretations of Islam, which generally arise when religion is conflated with culture, may seem to discourage cancer screening:

'Religion does become a barrier [to cancer screening] when there's this presumption that, especially amongst conservative Muslims, if the doctor or the attendee is of the opposite gender, they can't deal with them. So that is a misconception that people have and that often does become a barrier [. . .] like I say it's a misinterpretation of religion that would cause somebody to say "okay, I don't need it", but really the proper interpretation of the religion would encourage a person to do it.' (P2)

Involving imams to improve cancer screening rates among South Asian Muslim immigrant women. Two participants specifically described that the community gains a sense of comfort from having the support of imams regarding health practices. This sense of comfort and support is especially important to individuals who may be unfamiliar or new to the community. Although 1 participant was unsure if involving imams in cancer screening discussions would directly correlate with improved screening rates among South Asian Muslim immigrant women, he still believed imam involvement could help overcome religious misconceptions that may act as barriers to cancer screening for this population.

'Involving imams would be very effective at least in taking away some of the [religious] misconceptions, such as fatalism that can be barriers to screening.' (P2)

Table 2. Themes, Subthemes, and Involved Groups Identified for Imams' Recommended Practices in Improving Cancer Screening, Using the Communication for Development Approach.

Practices	Subthemes	Groups
Self-efficacy	• Use both Islamic teachings and scientific facts • Use accessible facilities as venues (mosques, Islamic centers) • Utilize speaker role at gatherings (Friday sermons and prayers, Islamic/Quran classes, Eid prayers) • Utilize access to Muslim youth as key informers	Imams (Muslim religious leaders)
Outreach	• Utilize Muslim community's in-person events or social media pages to advertise and educate • Involve Muslim and/or South Asian doctors as speakers	Imams, congregants, healthcare professionals, religious organizations
Involve knowledge providers	• Collaborate with universities, health organizations, and South Asian/Muslim doctors, nurses, or technologists to educate imams • Collaborate with universities to generate easily digestible format for disseminating health information	Imams, congregants, universities, health-related organizations, healthcare professionals
Engage community relationships	• Run regular health-related awareness discussions, events, days, or weeks • Implement a cancer screening awareness campaign targeted at immigrant South Asian Muslim women • Collaborate with South Asian cultural community groups to reach target community members • Set up information booths at South Asian or Muslim community events and festivals • Involve doctors, cancer survivors, or post-secondary students in campaigns or at information booths	Imams, congregants, healthcare professionals, post-secondary students, cancer survivors, community organizations
Advocate	• Advocate for incorporation of health-related programs into Muslim organizations' policies • Advocate for health authorities to be more culturally sensitive when encouraging screening practices	Imams, Muslim organizations, health authorities

Faith-Based Practices to Improve Cancer Screening

Using C4D, we categorized participants' recommended practices for improving cancer screening rates among South Asian Muslim immigrant women into 5 main themes: (i) self-efficacy; (ii) outreach; (iii) involve knowledge providers; (iv) engage community relationships; and (v) advocate. Each theme was analyzed and related to a specific level of the SEM where they would be most feasible and effective (Table 2).

Self-efficacy. Over half of the participants had encouraged cancer screening to their congregants in the past, emphasizing the importance of increasing awareness about health resources, through sermons, dialog, and individual conversations, in religious settings. For instance, 2 participants encouraged cancer screening to congregants following the disease course and subsequent death of a community member with cancer. All participants agreed that they would use both Islamic teachings and evidence-based information when discussing cancer screening as they "go hand-in-hand" (P2) in any health-related discussion with congregants.

> *'You can tell [some congregants] 100 things which are logical – just put one small verse of the Quran [in with academic information] and they say, "yeah, this is right!"' (P5)*

Nearly all participants suggested that the readily available and accessible spaces and facilities in mosques and Islamic centers could be very useful as venues for larger community workshops, presentations, or other health literacy initiatives. All participants agreed that regardless of the format of the event or initiative organized to improve cancer screening health literacy and encourage cancer screening among South Asian Muslim immigrant women, participants' unique strengths and experience as a speaker would be a guaranteed support. It was emphasized that if a public community speaker, like an imam, is educated on a certain topic, they will inevitably discuss the topic with their audience. Educating a community's influential leaders was acknowledged as an important part of instigating and facilitating sustainable change. Another participant also highlighted the unique role of imams in the community as they can stimulate the emotional intelligence of their congregants. In contrast, if the speaker is not relatable or not speaking in a culturally or religiously relevant manner, congregants would quickly lose interest. Some participants emphasized that working with the youth community is also important in relaying health information and changing behaviors:

> *'[The youth] are the ones who'll take the message into their homes and explain to their parents in the most relatable way.' (P5)*

In addition, all participants emphasized the access to thousands of people they have at weekly Friday sermons and prayers (*Jummah*), weekly Islamic or Quran classes (*duruus)* and biannual Eid prayers. These recurring events were identified to host the largest congregation of Muslim South Asian community members, providing an opportune setting for faith-based health literacy initiatives. One participant estimated that on average 1200-1500 people attend the weekly *Jummah* and around 7000 people attend the biannual Eid prayers. Since imams hold the responsibility of giving sermons at these important religious occasions, as well as at regular *duruus* and *halaqats*, these events were emphasized by all participants as effective means of sharing health information and other important messages. One participant pointed out that the whole population does not need to absorb and process a message, as there is benefit to even a small subset of an audience finding meaning in the message:

> *'If I have thousand people in front of me, and five people got the message, my job is done. I don't need to convince a thousand people, just five. And these five people will convey this to another five, each five, you know. That's how it will spread.' (P5)*

Outreach. All participants indicated their involvement with Muslim organizations and mosques both in-person and online has built strong social networks, which can be useful for advertisement and outreach. One participant suggested flyers could be created and distributed in-person or online to advertise workshops or increase awareness about cancer screening. All participants also advocated for collaboration with local doctors:

> *'The greatest yield. . . get a doctor, get a religious leader. People who maybe aren't as educated they will maybe lean toward the religious leader. Or what it'll do is it'll make them feel a bit more comfortable.'* (P3)

Another participant reinforced this point by mentioning that physician involvement in health discussions from a religious perspective is crucial for congregants:

> *'[Congregants] believe that the Prophet said this or that, but at the same time, they have to ask the doctor. They have to check, have to do screening.'* (P1)

Additionally, it was mentioned that specifically requesting female doctors to be involved at seminars may help make South Asian Muslim women feel even more at ease by reducing religious or cultural notions of modesty and privacy.

Involve knowledge providers. Participants suggested that if local academic institutions or universities educated imams about cancer screening, imams would be encouraged to speak on the topic:

> *'If I don't have any deep research on something, I prefer not to talk about it, not to explain it. If I get a question for which I have no answer, the answer it is baseless. . .groundless. . . senseless. So, I want to learn more [. . .] and when I am very confident about it, I can talk to people.' (P5)*

Nearly all participants also suggested that students from the local university could be involved in awareness campaigns or workshops as guest speakers. One participant recommended that students give presentations at *duruus* classes to increase cancer screening awareness and knowledge. Then, the religious leader could take the information from the presentation and develop supplementary sermons and dialog based on the Quran. Participants urged that doctors, nurses, technologists, or post-secondary students who are females, Muslim or South Asian, and speak South Asian languages be involved as it would help reduce linguistic, cultural, and religious differences and create a more comfortable environment for South Asian Muslim immigrant women as attendees.

Engage community relationships. Most participants mentioned that health-related discussions, events, or initiatives should be run on a regular basis. Participants envisioned a cancer screening awareness campaign targeted at South Asian Muslim immigrant women that could be a part of a larger health literacy initiative targeted to this population. Three participants recommended collaborating with local cultural community groups to advertise health campaigns, to identify potential events where cancer screening could be effectively promoted, and to recruit speakers such as doctors or cancer survivors. One participant suggested that informational booths about cancer and cancer screening could be set up at community events or local festivals that have high attendance by members of the South Asian community. Participants suggested that post-secondary students who are familiar with cancer screening as well as the Muslim South Asian culture, religion, and language would be appropriate booth organizers and speakers at these events.

Advocate. Over half of the participants mentioned that their involvement at the policy level of Muslim organizations could be utilized to develop and incorporate health-related programs into organizational policy. Another participant urged that government health authorities ought to be more inclusive and culturally and religiously aware when encouraging cancer screening:

> *'A poster or a commercial with a hijabi woman would resonate more with a hijabi woman than a picture or video of a Caucasian woman. We live in Canada, this is based on multiculturalism, everyone has to be considered. Because this*

disease doesn't discriminate, neither should our attempts in bringing it to people's attention.' (P7)

These findings demonstrate that there is ample opportunity to involve religious leaders in policy formation that encourages religious competency and inclusivity into health practices to better serve the increasingly diverse communities across Canada.

Discussion

In this study, we addressed an important gap in literature by exploring imams' knowledge and attitudes regarding cancer and cancer screening. Using the C4D and the SEM, we were also able to uniquely identify imams' perceived practices for overcoming religious misinterpretations to help promote cancer screening among South Asian Muslim immigrant women.

We found that imams were eager to use their access to religious centers and community relationships to overcome religious misinterpretations and educate the South Asian immigrant women in their community about the topic of cancer and cancer screening, given that they had adequate information about this topic. Imams noted that their current lack of knowledge about cancer and cancer screening prevented them from sharing important health messages with their congregants. Another study similarly found that although religious leaders in the Korean American community acknowledged depression to be a pressing issue, a lack of mental health literacy prevented religious leaders from responding to their community's mental health needs.[11] There may be an opportunity to promote cancer screening health literacy among South Asian Muslim immigrant women by addressing the lack of health literacy about cancer screening among imams. In fact, a study implementing innovative approaches to enhance detection of tuberculosis in Bangladesh found that educating religious leaders on tuberculosis resulted in an increased number of mosque sermons about the topic, and consequently increased tuberculosis detection among congregants.[20]

Imams primarily credited their motivation and willingness to increase their community's health literacy to the emphasis Islam places on taking care of one's health. This emphasis may explain why imams have readily been involved in various health promotion capacities in the past, such as medical decision-making, reproductive planning, and increasing awareness about cardiovascular disease risk factors.[10,21,22]

Imams in this study emphasized that to realistically overcome religious misinterpretations and improve cancer screening rates, collaboration with knowledge providers is crucial. Academics, post-secondary students, and healthcare professionals, especially those who are familiar with Islam and South Asian culture, were acknowledged as an important resource for educating both imams and South Asian Muslim immigrant women about cancer screening in a culturally and religiously competent manner. Numerous studies have highlighted the importance of collaborative efforts between healthcare professionals and religious leaders when encouraging preventative health practices.[23-26] One study explored the views of Muslim religious leaders on the rotavirus vaccine in Indonesia and found that halal-labeling of the vaccine by religious leaders was important to increasing vaccine acceptability among Muslims.[27] Demonstrating that religious leaders are highly influential in encouraging preventative behaviors among congregants, the study emphasizes the role religious leaders play in bridging healthcare with the community.[27]

A strength of our research project was the use of interviews and organization of interview responses using together the KAP model, SEM, and C4D, as this elicited rich, contextual, and feasible data. Although our project had a small sample size (n = 8), we contacted all of the 15 imams in the city and were able to interview over half. Another strength of our project was that all of participating imams were fairly young and well-educated, which may be reflective of the upcoming generation of imams in Canada.

The applicability of our study's findings may be limited because different jurisdictions may have different cancer screening processes, healthcare systems, or levels of engagement between religious leaders and congregants.

This research project identified the knowledge and attitudes held by imams regarding cancer, cancer screening, and religious misinterpretations as barriers to cancer screening, among South Asian Muslim immigrant women. This project also identified the role of imams in practices aimed at improving cancer screening rates among these women. We found that imams were highly supportive of using their skills and resources to communicate the importance of cancer screening, and to overcome religious misinterpretations that may act as barriers to cancer screening, to South Asian Muslim immigrant women. Collaborations between imams and healthcare professionals were emphasized as an important bridge between cancer screening promotion and the Muslim community.

We recognize that all of the practices proposed in this study need to be centered around South Asian Muslim immigrant women. Therefore, the incorporation of these women's experiences, opinions, and perspectives regarding cancer screening and the involvement of imams in efforts to encourage cancer screening will be essential for implementing culture-, religious-, and gender-sensitive efforts. Future work should focus on implementing and assessing the practices recommended in this research project for translating knowledge about cancer screening from healthcare professionals to religious leaders and congregants, with South Asian Muslim immigrant women's voices at their center.

Author Contribution

AK, MF, and TCT conceptualized the study and designed the study. The data collection was conducted by AK, SH, and SA. Analysis were performed by AK, NC, and TCT. The draft of the manuscript was prepared by AK, NC, OG, and TCT and all authors provided intellectual input to the manuscript. All authors read and approved the final manuscript.

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Ethics Approval

Ethics approval received from University of Calgary research ethics board.

Consent to Participate

Participants provided informed consent.

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