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A Qualitative Study of Barriers and Enablers associated with Colorectal Cancer Screening among Somali Men in Minnesota

Charles R. Rogers, PhD, MPH, MS, CHES®*,

University of Minnesota Medical School, Dept. of Family Medicine & Community Health, 717 Delaware St. SE, Suite 166, Minneapolis, MN 55414, Tel. +1-612-626-3894, Fax +1-612-626-6782

Ogechi Jessica Obidike, MPH,

Office of the Legislative Auditor, Minnesota State Legislature, St Paul, Minnesota

Sherrie F. Wallington, PhD,

Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington, D.C

Musse Hussein,

University of Minnesota, Minneapolis, MN

Zahra A. Mahamed,

University of Minnesota, Minneapolis, MN

Jill Sampson

University of Minnesota, Minneapolis, MN

Charles R. Rogers: crrogers@umn.edu; Ogechi Jessica Obidike: obidi006@umn.edu; Sherrie F. Wallington: slw49@georgetown.edu; Musse Hussein: husse081@umn.edu; Zahra A. Mahamed: maham033@umn.edu; Jill Sampson: samps227@umn.edu

Abstract

The rate of cancer screening is generally increasing in the US. In Minnesota, the statewide average rate of screening for colorectal cancer (CRC) is 73%. However, screening completion is relatively low among Somali men; overall, only 27% of Somali immigrants have been screened for CRC. Factors contributing to this disparity have not been well researched. The purpose of this pilot study was to employ focus group methodology to describe and advance understanding of the barriers and enablers associated with CRC screening among Somali men ages 50–74 in Minnesota. Three focus groups were conducted among 27 Somali men in Minnesota. A 9-question, semi-structured interview guide was used. The sessions were audio recorded, transcribed verbatim, and checked for accuracy by research staff prior to data analysis. Three research team members utilized the constant comparative method and NVivo to conduct data analysis. Five barriers to CRC screening emerged from the analyses: (1) lack of knowledge, (2) emotional barriers, (3) acculturation, (4) accountability, and (5) fatalistic beliefs. In addition, two factors enabling CRC screening and prevention emerged: the need for tailored interventions and preventive lifestyle behaviors. The

*Corresponding Author.

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insights gained from this research will assist in developing health promotion and education-focused interventions that encourage Somali immigrants in Minnesota and beyond to seek early detection screening for CRC.

Keywords

Barriers; Cancer Early Detection; Colorectal Cancer; Health Disparities; Qualitative Research; Somali Men

Introduction

Colorectal cancer (CRC) is a major cause of mortality and morbidity worldwide (World Cancer Research Fund/American Institute for Cancer Research, 2007; World Health Organization International Agency for Research on Cancer and International Association of Cancer Registries, 2007). In the United States (US), approximately 50,630 deaths from CRC are expected to occur in 2018 (American Cancer Society, 2018), making CRC the second leading cause of cancer death in the US for men and women combined (Siegel et al., 2014; American Cancer Society, 2017). Yet CRC incidence and mortality rates have decreased in the US within the past century (Austin et al., 2014; Jemal et al., 2007). Factors contributing to this decrease include advances in medicines and improvements in prevention and control efforts. Multiple types of screening exams for early detection of CRC are now available, including the fecal occult blood test (FOBT), fecal immunochemical test (FIT), sigmoidoscopy, and colonoscopy (Robbins et al., 2012). Uptake of CRC screening has increased nationally (Robbins et al., 2012), and five-year survival rates for CRC are nearly 90% when the disease is diagnosed at an early stage via screening (Holden et al., 2010).

Despite these overall improvements, cancer screening rates remain extremely low among racial and ethnic minorities compared with whites. Incidence of and deaths from cancer are also higher among minorities (Siegel et al., 2014; American Cancer Society, 2017; American Cancer Society, 2016). For instance, African American men have incidence and mortality rates 27% and 52% higher, respectively, than those of white men (American Cancer Society, 2017). Factors contributing to this disproportionate burden among African American men include lower socioeconomic status, which is associated with lack of access to health insurance and health care, and low participation in high-quality, regular screening, which leads to differences in timely diagnosis and treatment (Jemal et al., 2007; Jemal et al., 2010; Mitchell et al., 2013; Author A and others, 2015; Albano et al., 2007; American Cancer Society, 2016).

The Twin Cities of Minneapolis and St. Paul, Minnesota, have a Somali population of over 60,000, the largest Somali immigrant population in the US (Minnesota Historical Society; United States Census Bureau). Although national data regarding CRC incidence and mortality among African American men are readily available, this information is missing for US-born and first-generation immigrants of East African origin in Minnesota. However, the nonprofit organization MN Community Measurement (2018) found that Somali immigrants ages 50–74 in Minnesota have a CRC screening rate of 27%, significantly below the statewide average (73%) and the screening rate for whites (74%). This agrees with a small

yet consistent body of research showing lower rates of cancer screening and preventive services among African and other immigrant communities (Abdullahi et al., 2009; Consedine et al., 2011; Ghebre et al., 2015; Harcourt et al., 2014; Koo et al., 2012; Hurtado-de-Mendoza et al., 2014; Morrison et al., 2013; Morrison et al., 2012; Paszat et al., 2017; Pratt et al., 2017; Raymond et al., 2014; Redwood-Campbell et al., 2011; Sewali et al., 2015; Shankar et al., 2016; Shen et al., 2018; Upvall et al., 2009). For example, Koo et al. (2012) found that physicians were less likely to recommend CRC screening to immigrant patients and that the ethnicity of both the provider (independent of medical training) and the patient influenced screening rates. Hurtado-de-Mendoza et al. (2014) found that African immigrant communities had lower cancer screening rates and lower awareness of screening recommendations compared with other populations; higher acculturation was associated with higher screening rates. Barriers to screening uptake included access (e.g., insurance, transportation) and psychosocial concerns (e.g., shame). Recent research by Pratt et al. (2017) on screening for breast and cervical cancer among Somali women revealed that faith-based messaging substantially improved screening uptake. Sewali and colleagues (2015) found that Somali men generally lacked knowledge about cancer screening and that most believed they were less at risk because of their Islamic faith. A need for culturally appropriate screening information was identified across many studies. With a large influx of African immigrants to Minnesota in the last decade, recognition, research, and resources must be increased for targeted approaches that will close gaps in screening rates, ensuring that all Minnesotans have an equal chance to benefit from CRC screening.

The literature examining Somali male populations and cancer control efforts in the US is limited. A systematic review conducted by Hurtado-de-Mendoza et al. (2014) found 20 cancer studies focused on African immigrant populations, more than half of which (n=12) focused solely on women, and 40% (n=8) and 30% (n=6) represented Nigerian and Somali populations, respectively. Fourteen of the 20 studies were conducted in the US. For example, two studies conducted in Minnesota examined healthcare behaviors in men and women; one study focused broadly on East African refugees while the other examined Somalis only. Simmelink et al. (2013) examined the health beliefs and practices of East African refugees in Minneapolis, finding that this population was more likely to comply with treatment or prevention strategies if someone in the community vouched for a healthcare practice or a specific treatment. The second study (Morrison et al., 2012) investigated disparities in preventive health services between Somali and non-Somali patients. Electronic medical records showed that Somalis had significantly lower completion rates for these services, including CRC screening, juxtaposed to non-Somalis.

Somali men and their preventive health behaviors in the US may be expected to differ from those of other African American men, primarily due to the large role their Islamic faith plays in nearly all aspects of decision making. For example, Islam emphasizes guarding one's intimate parts (e.g., genitalia, bottom); thus, the conventional methods used in a colonoscopy of inserting a probe through the rectum could be seen by some as a violation of this faith tenet (Al-Qaradawi, 2013). Furthermore, the diet within Somali culture is heavy on red meats (goat, beef, and camel) and low on fruits/vegetables (McEwen, Straus, & Croker, 2009). Numerous studies have shown that diets high in red meats can increase CRC risk.

All considered, the lack of research on CRC prevention and control among Somali immigrants in the US, and specifically among Somali males, is a forthcoming public health emergency. Accordingly, the aim of this in-depth qualitative pilot study was to describe and advance understanding of the barriers and enablers associated with CRC screening among Somali men ages 50–74 living in Minnesota by employing focus group methods. Findings from this study will offer a solid foundation for designing early intervention, health promotion, and CRC prevention programs responsive to the needs of Somali men.

Methods

Study design

Focus groups were led by the study's PI (CRR; an African-American male with a PhD) and the fifth author (ZAM; a Somali female), who served as the project assistant (PA). The PI and PA used a 9-question, semi-structured focus group guide (Table 1). Questions were designed to understand why the men were participating in the study (3 questions), their feelings about and understanding of CRC (2 questions), and their knowledge of and attitudes towards CRC prevention and screening (4 questions). The focus group began with an icebreaker activity prior to the formal questions (*'In 60 seconds or less, please say your name and one thing you do to keep yourself healthy'*).

Sample and eligibility criteria—Participants were men who (a) self-described as Somali, (b) were between the ages of 50 and 74, (c) had never obtained CRC screening (FOBT, FIT, sigmoidoscopy, or colonoscopy), and (d) resided in Minnesota.

Recruitment and setting—Participants were primarily recruited from the metropolitan area of Minneapolis and St. Paul, Minnesota, because it is inhabited by the most Somalis in the state (Minnesota Historical Society; United States Census Bureau). During January and February 2016 and January to April 2017, participants were recruited through various existing social networks (e.g., email discussion lists, restaurants serving Somali food, social media) and predominantly Somali-serving health clinics, using culturally sensitive and tailored flyers (in English and Somali). The PA, who is fluent in spoken and written Somali, created Somali translations of the flyers and all other study materials. When necessary, the PA obtained translation verification from a teaching specialist/instructor at the University of Minnesota.

In 2016, potential participants were encouraged to visit the front desk of a local federally qualified health center (FQHC) that is frequently used by Somalis and provide their name, email address, and phone number so they could be contacted by the PA to confirm their participation and the day and time of the focus group. Specifically, the FQHC was expected to give interested individuals a form and a stamped envelope addressed to the PI. The form provided a brief introduction to the study purpose and methods, in addition to a space for potential participants to provide their contact information. Potential participants could either return the completed form to the FQHC or send it directly to the PI via US mail. The front desk receptionist at the FQHC was then expected to secure any completed forms that were not mailed in a locked file cabinet to minimize the risk of names being exposed to others. The research team thought that the FQHC would be an ideal location for the focus groups

because its CRC screening average remains the lowest in the state of Minnesota for Somalis (5%), despite the FQHC serving more Somali patients ($n = 701$) than other sites (MN Community Measurement, 2017).

However, after the first focus group was successfully conducted in February 2016, logistical issues made further recruiting at the FQHC difficult. Therefore, recruitment for the remaining two focus groups took place in March and April 2017 at a local community center highly respected by the Somali community. Two Somali members of the research team sat at a recruitment table at the community center numerous times each week from January through April 2017 to recruit, screen, and schedule potential participants for the focus groups in person or via phone. A respected Somali community champion (a community health organizer) worked with the PA and members of the research team to directly connect members of his network with the PA.

With all recruitment methods, Somali research team members contacted potential participants and gave them the opportunity to ask questions about the study and to agree or decline to participate in a focus group.

Data collection and measures—Prior to data collection, the University of Minnesota's Institutional Review Board approved the study protocol, and informed consent to participate was obtained from all study participants by using a form offered in both English and Somali. At the first focus group, the PA encouraged 9 participants to complete a brief anonymous survey to obtain their demographic information (e.g., age, health insurance status). Unexpectedly, it took roughly 60 minutes to complete the survey because the most participants were unable to read and write in either English or Somali and needed one-on-one assistance from the PA. Thus, for the two 2017 focus groups, participants completed the demographic forms via phone prior to the sessions, with the aid of two Somali members of the research team.

Next, a 9-question, semi-structured focus group guide was used to obtain input regarding the barriers and enablers associated with CRC screening among Somali men. Each session was audio recorded with two devices, professionally transcribed verbatim, and checked for accuracy by research staff prior to data analysis. To ensure that the focus group process was culturally sensitive to the intended audience, the questions (offered in both English and Somali) were provided at the start of the session. The PA and PI co-facilitated the session, with the PA translating each participant's Somali responses into English. One or two additional research team members were present to serve as note takers. The focus groups were held in a fairly large room at the FQHC or community center between approximately 10 a.m. and noon or 2:30 p.m. and 4 p.m. to avoid conflicting with traditional times of prayer. The men were seated around a large round table with the facilitator-translator (PA) and PI sitting side by side at the table. Research assistant(s) took notes in a small seating area away from the primary focus group table.

Incentives—Given the voluntary nature of the study, incentives were offered for participation. Freshly prepared Halal foods, Somali tea, and water were provided at the beginning of each session, and participants were compensated for their time with a \$10 gift

card. Additionally, participants could be entered into a random drawing to win one of six prizes ranging from a \$50 grocery store gift card to a 43" television. To participate in the prize drawing, participants were asked to submit their name and phone number at the conclusion of the session so they could be contacted if they were selected. Participants' personal information was stored separately from the study sign-up sheets and was deleted at the conclusion of the study.

Analysis plan—The de-identified focus group transcripts were imported into NVivo v11 (QSR International). Using the constant comparative method (Glaser and Strauss, 1967; Strauss and Corbin, 1990), the research team independently coded for themes. The constant comparative method allowed the researchers to break down the data into discrete 'incidents' or 'units' (Glaser and Strauss, 1967; Lincoln and Guba, 1985) and code them into categories. This was particularly useful in helping the researchers learn more about the lived experiences and perceptions of Somali men in the U.S.

Coding: The research team decided by consensus to use a hybrid coding approach involving both pre-set or "*a priori codes*" derived from the investigators' prior knowledge of the subject matter, subject expertise, initial exploratory research questions, topical problem areas, and cultural and linguistic factors. A codebook listed all the codes and described what each code meant. Additional codes emerged during the reading and analysis of the data, representing ideas, concepts, actions, relationships, and meanings that differ from the pre-set codes. In some instances the research team needed to develop new codes, while some other codes were collapsed. For all focus groups, new codes were developed until thematic saturation was reached. Ultimately, key themes from the focus groups were identified (Miles and Huberman, 1994; Saldaña, 2009).

The first focus group transcript was coded by the second, third, and fourth authors. Coding team members held regular meetings to interpret and discuss their findings. The coding team tracked their coding decisions in NVivo and consolidated them at each meeting to develop a codebook depicting the interrelationships among their codes. Disagreements were refereed by a fourth research team member (the PA). The remaining transcripts were coded by the second and fourth authors and final coding decisions were made by the third author. Demographic information for the sample was summarized using Stata (Version 14, StataCorp, College Station TX). Data analysis occurred from March through April 2016 and from April through May 2017.

Results

Sample characteristics

The focus group sessions were held in February 2016, March 2017, and April 2017; each group contained seven to eleven Somali men and lasted 72–90 minutes. Twenty-seven Somali men met full inclusion criteria and agreed to participate. Study participants' mean age was 62.48 ± 5.34 ; fifteen (56%) were aged between 60 and 69 years.

Most participants (93%) had visited a doctor in the past year; 85% had one doctor with whom they always consulted. Most (70%) did not have a family history of CRC, 26% were

unsure, and one participant did have a family history of CRC. All participants practiced Islam; 85% attended religious activities regularly. All participants learned about the study via friends or the study's Somali community champion. Additional participant demographic characteristics are presented in Table 2.

Themes

Five themes relating to barriers to CRC screening emerged from the analyses: (1) lack of knowledge, (2) emotional barriers, (3) acculturation, (4) accountability, and (5) fatalistic beliefs. Each theme encompassed two to four subthemes. Lack of knowledge included lack of familiarity with CRC; concerns that no medications are available to treat it, that only a doctor can diagnose the disease because there are no symptoms, and that no action can be taken to prevent it; eagerness to learn and disseminate information in their communities; and conflating of or inability to distinguish between different types of cancer. Emotional barriers included fears associated with the word *cancer* or its diagnosis and suspicions of pharmaceutical companies profiting from the disease. Acculturation included awareness of the impact of cultural shifts in perspective and a perception that more-recent immigrants were less dependent on their providers, less knowledgeable about the medical systems, and possibly less likely to get cancer. Accountability refers to the responsibilities participants assigned to doctors for providing information and the perceived role of religiosity and 'divine will' influencing individual disease and health outcomes. Fatalism included the belief that a cancer diagnosis is a death sentence and a lack of faith in access to medicines that could help or cure.

In addition to these five barrier-related themes, two themes related to factors enabling CRC screening and prevention emerged: the need for tailored interventions and preventive lifestyle behaviors.

Lack of knowledge—Perhaps the most prevalent theme to emerge from the three focus groups was lack of information. Participants were unfamiliar with CRC and some were hearing of the disease for the first time. Concern was repeatedly expressed about the absence of medicines for cancer and the inability to prevent the disease or to know if one has it except if diagnosed by a doctor. Participants' primary motivation for attending the focus groups was eagerness to learn; they expressed a deep interest in increasing their CRC knowledge. (All participant quotes are translated from Somali.)

'... we need education and knowledge in our community about this, especially for our youth, especially in ways to prevent, about how to stop this disease from occurring, especially in the older generation and this is the job of the doctor.'
(Focus Group 1)

'Many of us don't even know about these...their knowledge is not a lot, and [those with] most of the knowledge about these cancers are the youth or the religious [leaders].'
(Focus Group 1)

'....Many times people travel to foreign countries to search for medication, but we still have no real information about cancer treatment and care.'
(Focus Group 2)

‘Most Somalis don’t know about colorectal cancer, stomach cancer, or any specific cancer at all. However, I believe if the resources were out there to educate us, everyone would seek them out.’ (Focus Group 2)

Participants had such a strong desire for information that the PI transformed the end of each session into a brief impromptu educational presentation about CRC, early-detection screening methods, CRC screening disparities in Minnesota, and where to obtain preventive services.

Emotional barriers—The two main emotional barriers among the men were: fear and suspicion. Regarding *fear*, there was considerable discussion about the diagnosis of cancer, the word *cancer*, the disease being equated with death, and it being more frightening than AIDS. Participants felt that CRC was a very bad disease, requiring proper screening. Fear was also a shared sentiment regarding perceptions of cancer, including CRC.

‘Cancer has become the precedence of fear in a sense. So, when I thought of it, I thought of no medicine, just afraid, this is a very bad disease, deadly disease.’ (Focus Group 1)

‘This disease...creates fear in people because there is a belief that the chances of finding a medication are greatly outnumbered by the chances of a person dying from the disease. Regardless, to me, it is crucial that we become educated on the symptoms so we can seek care immediately.’ (Focus Group 3)

The men also expressed *suspicion*. One participant had grave suspicions of companies that profit from medical needs, expressing a concern that they may even cause chronic diseases (e.g., CRC) to make a profit.

‘Speaking of cancer in general, I believe that there is a conspiracy where many of these companies cause these diseases. Or bring about these diseases so that they can make medicine and profit from it, and make business from it, and increase the antibiotic or anti-pain that they find....’ (Focus Group 1)

‘Whether the person has cancer or mental health issues, Somali people purposely don’t get proper treatment, and we don’t know who to talk to about this. The only thing we have to show is us receiving poisoned and useless medication.’ (Focus Group 2)

Acculturation—From an *acculturation* viewpoint, participants were particularly aware of their cross-cultural perspective. In addition to wanting to gain more information, they were also motivated to participate in the study by the wish to disseminate newfound knowledge to the broader Somali community. They mentioned not having seen cancer in Somalia/Africa and noted differences between their countrymen who had recently immigrated to the US and those who had been in America longer. Participants in Focus Group 1 noted that recent Somali immigrants were less likely to depend on their doctor, believed they were less likely to get cancer, and had less knowledge about health and the medical system.

‘In Africa, there are very few who die from cancer, whereas here, where America is so developed and modernized and there’s so much medicine. However, there is a lot of medicine in America, but no cure.’ (Focus Group 1)

‘You don’t see it in people that just came from Africa recently...only those who have been in America for some time. I have never seen [CRC/cancer] in Africa in general.’ (Focus Group 1)

Participants in all three focus groups said they understood cancers as indistinguishable from one another. Moreover, their knowledge of preventive risk factors was not associated with one type of cancer, but rather all cancers. For instance, one participant mentioned that in the mosque, members are encouraged to cease smoking due to its association with cancer; no particular cancers were specified.

‘...back home in Somalia there was no real distinction between colorectal cancer and [other] cancers.’ (Focus Group 2)

‘...we typically talk about it in the mosques, about [not smoking, as] that’s what’s going to lead to cancer. We don’t differentiate between the different cancers....’ (Focus Group 3)

Accountability—In regard to *accountability*, participants from Focus Groups 1 and 2 expected interventions from medical providers and expressed a belief in the obligation of medical personnel (physicians in addition to the study PI) to provide information. Men from Focus Group 2 emphasized the importance of physicians relaying cancer-related information or treatment advice once symptoms have been experienced. Some men felt a visit to the doctor was unnecessary if an individual was not experiencing symptoms; however, annual physical exams were emphasized as important. Absent a way to prevent or treat cancer, participants felt accountability was in the hands of God (Allah), who would intervene if they prayed and believed. Since they perceived that no prevention or medicine is available for cancer, the men felt that only God could cure it. Some participants also felt one should not intervene with an individual who has been diagnosed with cancer.

‘Typically, when I go to doctor, it’s because I’m sick and want...more information of why I am sick. I want to know what caused it and gain more information before I get any screenings or any information like that.... That is the sole responsibility of the doctor... I only go to the doctor because I’m sick. I don’t go for no reason.’ (Focus Group 3)

‘One thing I believe that none of the other men said was that [lack of adherence to] religion is a big problem, especially Islam. I believe that it’s crucial and believe these diseases would be kind of eradicated if we all truly believed in our religion and stuck with that.’ (Focus Group 1)

‘Doctors need to do a better job of informing people as early as possible about symptoms, treatment options, and specific ages in which testing should be sought out. This can save parents and their kids as well.’ (Focus Group 2)

‘...the doctors here on Earth don’t know how to treat some illnesses like cancer and typically Allah (God) can do it, actually Allah can do it. The way that you get away from diseases or sickness of any sort is that you do good on earth.’ (Focus Group 3)

Fatalistic beliefs—Participants from Focus Groups 1 and 2 discussed fatalism as a barrier to CRC prevention and felt having any form of cancer was a death sentence. Men from Focus Group 1 did not understand why there was no treatment for cancer (this generic term was used often because the men felt all forms of cancer are created equal) or why only a doctor can tell someone he has cancer. Participants in Focus Group 2 alluded to death from cancer and CRC as being inevitable, particularly in the US. Some men mentioned that they feared they will die because of an inability to access medication. One participant suggested that cancer medication is glorified by salesmen, but is ultimately ineffective.

‘When I think of colorectal cancer, I think of [a] killer. I think that the only one who can take this disease away is God or Allah. [CRC/cancer] is considered deadly, and it’s medicineless.’ (Focus Group 1)

‘...individuals who had cancer in general [in the US] didn’t have any medicine; therefore, we feel we are going to die unless we find treatment in other areas’ (Focus Group 2)

‘I believe that—my group of friends believe that if cancer occurs in a person, he/she is considered dead or going to die. And [unaffected people] pretty much lower the self-esteem of the person with cancer by telling them the negative attitudes they have against cancer, even though they are attempting to provide a little more support. Again, I can’t differentiate between the cancers.’ (Focus Group 1)

‘One thing us Somali people do know is that colorectal cancer is fatal and there has yet to be a doctor in America that has done anything about it.’ (Focus Group 2)

‘Personally, if I were to be diagnosed with colorectal cancer today, I would not have any faith in me receiving any medication that would work. I would see it as a death sentence. (Focus Group 2)

Tailored interventions—Participants discussed a need for improved patient-provider rapport and individuals shared anecdotes of physicians being impolite or insensitive. Men in Focus Group 2 stated that a physician’s demeanor could determine their decision to receive CRC screening. Participants also stated that their willingness to undergo screening relied on personal characteristics of their healthcare provider. Two factors deemed important in a provider were being caring and one providing sufficient information about the disease and screening process. More broadly, participants evinced healthcare system mistrust and stated that the medical field is primarily motivated by sales and profit.

‘...I’m not going to the doctor because [doctors are not] sincere, but if I need to go, I ...am willing to...do whatever testing... but again it depends on the doctor and how [sincere] they are, in their demeanor. When I go to the doctor for CRC screening specifically, I want to learn more about it. I feel that my doctor should be the one to tell me that. I do have a complete fear of doctors, due to previous bad

experiences. So, how do you expect Somalis or even I to make it easier for themselves to go to the doctor for CRC screening when the doctors themselves are not sensitive and polite?’ (Focus Group 2)

‘Once I went to the doctor’s office to undergo testing which included placing a probe in my throat and rectum. After the doctor inserted the two probes, he began conversing loudly with other people and I felt as if he didn’t care about me and my current state. He then removed the two probes and took them to his office without telling me what was going on. After sometime, he returned and said that the probes needed to be re-inserted because they didn’t work properly the first time. I refused and left because of his negligence and [because] he made me feel like I was not important.’ (Focus Group 2)

Participants stated that videos sharing the stories of CRC survivors should be used as a tool to increase screening rates among Somali men and that these videos should feature survivors emphasizing the importance of obtaining CRC screening for long-term outcomes (e.g., increased survival). They said that physicians should be more welcoming to patients and should be a reliable, accessible information source. Lastly, participants stated that providers and university staff should provide more dialogues and education sessions about CRC to dismantle existing myths and misconceptions.

‘[We need] videos ...survivors’ stories, individuals who had CRC, and [more discussion] about how important it is to get screened, and on top of that, making sure [to tell] individuals that it’s very important for them to get testing.’ (Focus Group 2)

‘Since the University of Minnesota is so close, geographically, to the heavily Somali- populated area of Minneapolis, there needs to be more open discussions, like this one, where doctors and educators from the university come and teach community members about the truth surrounding colorectal cancer.’ (Focus Group 3)

Preventive lifestyle behavior—Participants held healthy behaviors in high esteem, valuing exercise and healthy eating. Their definitions of exercise included working out at the gym, walking in the community (although the seasonal climates between Somalia and Minnesota influenced the ability to walk for exercise), and praying as aerobic exercise. Healthy eating included two elements commonly valued in American culture: (1) increasing vegetable consumption, especially leafy greens; and (2) decreasing fats, oils, and sugars. However, participants also revealed mixed ideas about whether rice was healthy, fasted regularly for health, and valued consuming ‘wetter foods with bread,’ concepts that may be specific to their cultural heritage.

‘I don’t eat anything with too much oil. I don’t eat meat that has a lot of fat on it. I eat a lot of vegetables; especially, [there are] a lot of things that are green in my diet.’ (Focus Group 1)

Men in Focus Group 1 believed there are no prevention methods for cancer; however, in the later groups, cultural foods and education emerged as methods to prevent CRC. Most of the

men from Focus Group 2 believed that drinking camel milk could prevent all cancers, including CRC. This connection was made in part because camel milk was also perceived to be a cure for AIDS. Overall, these men expressed positive attitudes about CRC prevention.

‘I feel the same as Mr. [X], that individuals that have camels or drink camel milk don’t have any issues with their intestine, and now they are even using... camel milk as the cure for AIDS.’ (Focus Group 2)

‘Typically, if someone is unsure of what the sickness is, if they just know that they are sick, they would typically go to the doctor to get ...the proper treatment. [For example, if] you know you have a flu, you go to the doctor or get the proper medicine ...to get healthy, but if you don’t know what’s going on, there is no way you can prevent it. So and learning more about it beforehand in order to get ahead of the disease.’ (Focus Group 3)

Discussion

Analysis of CRC screening rates by preferred language in Minnesota shows that individuals who prefer to speak Somali had the lowest rates (26%) compared with those who prefer English (73%) (MN Community Measurement, 2018). This disparity and the lack of research exploring this phenomenon are disheartening because Minnesota has the largest Somali population in the world outside of Somalia. Thus, in an effort to understand and eliminate the barriers associated with CRC screening completion disparities among Somali men relative to Minnesotans overall, we conducted a qualitative pilot study. Three comprehensive focus group sessions were completed. The results of these focus groups indicate that the major barriers to early-detection CRC screening were lack of knowledge, emotional barriers, acculturation, accountability, and fatalistic beliefs. The major enablers identified by participants were a need for tailored interventions and preventive lifestyle behavior.

Despite intensive promotion of screening for CRC after age 50 in Minnesota (e.g., on highway billboards), lack of knowledge was still a significant barrier to screening completion, a factor that has also been reported in other studies. For instance, in a cross-sectional study, women of West African origin living in Washington, D.C., had a higher likelihood of endorsing screening if they had greater breast cancer knowledge (Sheppard et al., 2015). In addition, participants who primarily spoke English were more likely to endorse screening than those who preferred to speak another language. Importantly, most (56%) of the current study’s participants lived in the US for more than 10 years. Because many of the Somali men in the current study lacked adequate CRC-related knowledge and were unable to speak English or write in either English or Somali, providers should consider partnering with patient navigators and community health workers to ensure that the Somali community—particularly those who do not speak English—becomes better informed about screening for CRC, a preventable disease.

Numerous other studies have identified emotional barriers such as fear of pain and diagnosis as impediments to cancer screening in disadvantaged communities. For example, in a qualitative, descriptive study conducted in Massachusetts (Saadi et al., 2015), fear was cited

as a significant barrier to seeking preventive care and breast cancer screening among 57 Somali, Bosnian, and Iraqi women refugees. In their in-depth, one-on-one patient interviews, these women reported the fear associated with a cancer diagnosis as a potential disincentive. As a Bosnian participant stated: 'Our women are afraid of the truth; they are afraid that [a] doctor will find something abnormal' (Saadi et al., 2015). Accordingly, our team encourages future researchers, community organizations, and medical providers to consider conducting informal, man-to-man education sessions with Somali men. Enacting this form of community-based, grass roots education could be effective in overcoming emotional barriers.

With regard to both acculturation and accountability, participants expressed negative attitudes toward US health professionals; perceived that cancer incidence and mortality are higher in the US than in Somalia despite the advanced medical infrastructure in the US compared with their home country; and discussed a unique connection between cancer and religion. The research team agrees with Saadi et al. (2015) that the complex interplay of these factors requires extensive dialogue among Somali immigrants and all those involved with navigating America's complicated and changing healthcare system to ensure healthcare. Religious leaders in the Somali community should partner with patient navigators to become better educated about CRC, preventive lifestyle behaviors, and screening for CRC. Lastly, the research team encourages medical providers to deliberately learn about their patients' exposure to physicians in their home country and duration of residence in the US to determine the depth and extent of education they may need regarding colorectal health, CRC, and early-detection screening for CRC. Given the distrust of medical professionals from focus group participants, improved perceptions and communication among Somali men and physicians are an important step prior to implementing tailored screening interventions.

Videos featuring CRC survivors may be an effective strategy for increasing knowledge, changing perceptions, and increasing CRC control efforts among Somali men. A quasi-experimental study by Yancey et al. (1995) tested the effect of health education videos on cervical cancer screening outcomes (). Pap smear uptake increased by 33% among low-income women (primarily African American and Latina) exposed to a culturally sensitive video intervention in two community health center waiting rooms compared to those not exposed to the video. Providing Somali men residing in the Twin Cities with a similar intervention focused on early detection of CRC may reduce the CRC prevention barriers found in our study, such as knowledge deficits, emotional barriers (e.g., fear, suspicion), and fatalistic beliefs. Moreover, conducting such an intervention in FQHCs serving predominantly Somali patients would be appropriate for two reasons. First, Somali men may be more apt to learn about CRC in a clinic waiting room, when they are likely thinking about their health status. Second, CRC health videos in this setting may help decrease negative attitudes about doctor visits frequently held by Somali men. Videos may also assist with distracting patients, as FQHCs tend to be understaffed and have long wait times (Ramos et al., 2016). Although exposure to health-related content via video may seem to be a promising approach for this population, racial minorities and survivors of CRC are often missing from cancer-survivorship stories found online (Eddens et al., 2009). Video content may therefore need to be developed with this population in mind. Such efforts to address

inequities in cancer prevention strategies may ultimately improve CRC control efforts, specifically among Somali men.

Several modifiable lifestyle-related factors (e.g., poor diet, lack of physical activity, heavy alcohol consumption, smoking) have been linked to a higher risk for CRC (American Cancer Society, 2018), some of which are relevant to our study population. Diet is etiologically linked to many health conditions, while unemployment, limited education, and low income—all key demographic characteristics of this study's sample—have been associated with high fat intake. Many underserved communities tend to have both a higher incidence of and high mortality from diet-related chronic diseases and conditions, including cardiovascular disease, CRC, and obesity. For example, CRC incidence and mortality rates remain higher for African Americans than for whites and other minority groups (American Cancer Society, 2016). In our study, the first question (*'In 60 seconds or less, please say your name and one thing you do to keep yourself healthy'*), intended as an icebreaker, revealed information worth further consideration in regard to the value participants placed on their health. Much Somali food is traditionally based on carbohydrates and red meats, which are part of the definition of poor diet in relation to CRC. In recent years, however—as was evident among our study participants—a shift toward healthier dietary options (e.g., more vegetables) has occurred among US residents. Consequently, additional research is needed to better understand the factors contributing to diet-related disparities among minority populations that increase for CRC, among other chronic diseases (Kayrooz et al., 1998; Eyler et al., 2004).

Despite the contributions this study makes, several limitations must be considered. First, a small number of focus groups were completed due to inability to recruit as originally planned. Due to poor logistical coordination at the local FQHC, participant recruitment was unsuccessful, and aid from a trusted community leader was determined to be the most effective way forward. However, the initial recruitment shortfall could also have resulted from other factors, such as the stigma associated with cancer in the community. Further, the research team learned from the focus groups that many Somali men did not understand what cancer meant and attributed it to negativity, a factor that also could have influenced recruitment. However, Guest et al. (2016) found that more than 80% of themes in qualitative studies are discoverable within two to three focus groups, suggesting that our findings are valuable despite the small number of groups.

Secondly, for items requiring translation, the research team did not use forward and back translation procedures to ensure content equivalency. Although Somali is the common language among those of Somali origin, varying dialects may have influenced not only recruitment but also the understanding of promotional materials and of the study itself. In an attempt to minimize this issue, all study materials were translated into the traditional/formal Somali language, and the authors refrained from using informal language.

Another limitation involved the assumption that participants had some literacy in English and/or Somali. Many participants were unable to read or write in either language and required assistance from the research team to complete demographic and consent forms. Future researchers should consider providing additional time to complete demographic

surveys or collecting this data via phone prior to the focus group sessions. As we found in the present study, two or three translators may be needed to assist with this process.

Next, the current study sample may not be generalizable to other Somali male immigrant populations. The research team believes, however, that the sample is demographically representative of the broader Somali immigrant population in the US. More than half of Somali immigrants between 2008 and 2012 had less than a high school education, were high school graduates, or had completed some college (Gambino et al., 2014). It is therefore likely that many Somali immigrants aged 60–75 years (the age range of most participants in our study), fall within a similar social class.

Lastly, recruitment efforts were led by the PA, a young adult Somali female. This is a limitation because potential participants may not have been comfortable talking with her informally about CRC screening, a sensitive topic among men. Because she was a stranger to them, potential participants may have also felt fear or mistrust because they only knew she was affiliated with a university, and academic institutions have historically been tied to medical mistrust in relation to research among underserved communities (Corbie-Smith et al., 1999; Thomas and Quinn, 1991). To potentially avoid this issue, future researchers should allow trusted, Somali-serving community leaders and their respective organizations to lead study recruitment.

Conclusions

The low rate of CRC screening among under-resourced minority men, especially those of Somali origin, is a continuing challenge to public health. To develop effective interventions that may change preventive behavior, it is critical to identify the beliefs, attitudes, intentions, and other factors influencing members of this group. Ultimately, the vital insights gained from the Somali men who participated in this qualitative pilot study will be valuable in developing future health promotion campaigns and education-focused interventions to encourage Somali immigrants in Minnesota and beyond to seek screening for early CRC detection.

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Abbreviations

CRC	Colorectal Cancer
FIT	Fecal Immunochemical Test
FOBT	Fecal Occult Blood Test

FQHC	Federally Qualified Health Center
PA	Project Assistant
PI	Principal Investigator

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Table 1

Focus Group Questions (English)

	Questions	Minutes
1.	How did you hear about the study?	5
2.	What were your thoughts about the study when you initially heard about it?	5
3.	What prompted you to participate in the study?	5
4.	What words, feelings, or ideas come to mind when you think about colon cancer?	10
5.	How do other Somali men you know talk about colon cancer as compared with other cancers?	10
6.	When it comes to preventing colon cancer, are there any ways that Somali men can keep from getting colon cancer?	10
7.	What types of things might keep you from getting colon cancer screening?	10
8.	What kind of things might make Somali men like you more likely be screened for colon cancer?	15
9.	Finally, if you could create an ideal situation where every Somali man would get screened for colon cancer, and no one would die from it, how would you do that?	15
Total Minutes		85

Table 2

Participant Demographic Characteristics *

Sample Characteristics (N = 27)	n*	%
Age		
50–59	9	33.3%
60–69	15	55.6%
70–75	3	11.1%
Current Minnesota Residence		
Minneapolis	25	92.6%
St. Paul	2	7.4%
Marital Status		
Single	3	11.1%
Married	21	77.8%
Divorced	1	3.7%
Widowed	1	3.7%
Highest Education Level Completed		
Partial High School	14	56.0%
GED or Equivalent	1	4.0%
High School Diploma	4	16.0%
Partial College (at least one year)	4	16.0%
Two Year College/Associate Degree	1	4.0%
Master's/Advanced Degree	1	4.0%
Do you currently work?		
No	22	81.5%
Yes, part-time	2	7.4%
Yes, full-time	3	11.1%
Household Income per Year		
< \$15,000	19	79.2%
\$15,000 – \$24,999	4	16.7%
\$25,000 – \$34,999	1	4.2%
Do you currently have health insurance?		
Yes	24	88.9%
No	3	11.1%
Have you visited a doctor or other healthcare provider in the past 12 months?		
Yes	25	92.6%
No	2	7.4%

* Does not add up to N= 27 as a result of data that were not reported.