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Arab Health Promoters' Perspectives on Religious/Cultural Challenges to Adopt Healthy Lifestyle Behaviours among Arab Immigrants in Canada

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Abstract

Despite the importance of faith and cultural background in Arab immigrants' lives, little is known about their role in preventing cardiovascular diseases. To understand the challenges among Arab immigrants related to acculturation and religiosity in adopting healthy lifestyle behaviours and managing stress, we conducted three face-to-face focus groups with 17 Arab health promoters who were members of the Canadian Arab Health Coalition. Averaging 80 minutes in length, the focus groups were conducted in Ottawa, Canada, in February and March 2018. Data were analyzed with an inductive thematic analysis approach; we identified four themes: "Culture first!": dominant influence of home country culture; "Religiosity alone does not make you healthy!": limited religious influence; "It is not easy!": difficulties adapting to the Canadian lifestyle; and "We are not young!": generational differences in adopting a healthy lifestyle. In brief, we found that some religious or cultural beliefs may be barriers to practicing physical activity, especially for women and older people. These barriers may be augmented with acculturative stress. Religiosity may also play an important indirect role in managing stress through socialization, family support, and the adoption of coping strategies. Younger people in Arabic communities appear to be more flexible in dealing with these religious/cultural issues.

Keywords

Arab immigrants, culture, focus group, health promotion, lifestyle behaviours, religiosity

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Arab Health Promoters' Perspectives on Religious/Cultural Challenges to Adopt Healthy Lifestyle Behaviours among Arab Immigrants in Canada

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Despite the importance of faith and cultural background in Arab immigrants' lives, little is known about their role in preventing cardiovascular diseases. To understand the challenges among Arab immigrants related to acculturation and religiosity in adopting healthy lifestyle behaviours and managing stress, we conducted three face-to-face focus groups with 17 Arab health promoters who were members of the Canadian Arab Health Coalition. Averaging 80 minutes in length, the focus groups were conducted in Ottawa, Canada, in February and March 2018. Data were analyzed with an inductive thematic analysis approach; we identified four themes: "Culture first!": dominant influence of home country culture; "Religiosity alone does not make you healthy!": limited religious influence; "It is not easy!": difficulties adapting to the Canadian lifestyle; and "We are not young!": generational differences in adopting a healthy lifestyle. In brief, we found that some religious or cultural beliefs may be barriers to practicing physical activity, especially for women and older people. These barriers may be augmented with acculturative stress. Religiosity may also play an important indirect role in managing stress through socialization, family support, and the adoption of coping strategies. Younger people in Arabic communities appear to be more flexible in dealing with these religious/cultural issues.

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Introduction

In Canada, the rate of cardiovascular diseases (CVDs) is remarkable, with heart disease being the second most common cause of death among Canadians (Statistics Canada, 2020). Approximately one deadly event related to heart disease occurs every seven minutes in Canada (Statistics Canada, 2011). Although mortality rates are high, the most important behavioural risk factors for CVD are either preventable or modifiable (Barbaresko et al., 2018; Lacombe et al., 2019; Priano et al., 2018). Almost 80% of premature heart disease could be prevented through healthy lifestyle behaviours (Heart and Stroke Foundation, 2017).

In general, CVDs are related to health conditions such as hypertension, high blood cholesterol, and diabetes (Piepoli et al., 2016). Still, they are also strongly associated with lifestyle risk factors, including tobacco smoking, physical inactivity, unhealthy diet, and the harmful use of alcohol (Lacombe et al., 2019; Piepoli et al., 2016). Stress may be a hidden risk factor that leads to different negative health consequences, including heart diseases (Bailey Merz et al., 2002; Smaardijk et al., 2019; Walton et al., 2002) through mutual influence with unhealthy behaviours (Al Wekhian, 2016; Kivimäki & Steptoe, 2018; Orth-Gomér et al., 2005; Steffen et al., 2006).

Despite the importance of adopting healthy lifestyle behaviours, such as increasing physical activity, and managing stress to prevent risk factors leading to CVD (Sisti et al., 2018), people from ethnic immigrant groups in the Global North, such as Canada, experience some difficulty in adopting healthy lifestyle behaviours (Caperchione et al., 2009; Patel et al., 2017). For some ethnic immigrant groups, these challenges may be related to their countries of origin (Sohail et al., 2015) where CVD and other non-communicable diseases are increasing (WHO, 2010) or to the stressful migration and acculturation into a new social and cultural environment (Gadd et al., 2005).

For immigrants, the acculturation experience depends on the interaction between different factors that may belong to personal characteristics and group culture (Berry, 1997). The value of health maintenance and disease prevention through physical activity may differ from one ethnic immigrant group to another based on the culture in the countries of origin and the acculturation level in host countries (Liu et al., 2010). Being less acculturated may be associated with negative health beliefs and perceptions towards CVD prevention. Less acculturated patients have been found to have a greater fear of CVD, higher perceived susceptibility to disease and more expectation of getting CVD in their lifetime (Edelman et al., 2009). Difficulties for immigrants in accepting Western lifestyles may lead to acculturative stress: “a stress reaction in response to life events that are rooted in the experience of acculturation” (Berry, 2006, p. 294). The acculturative stress, in addition to the cultural background and the lifestyle in the original countries, may lead to a high prevalence of unhealthy behaviours and risk factors for CVDs in many immigrant groups (Gadd et al., 2005). This stress and new life burden may be reflected negatively on immigrants’ physical and mental health status. Yet culture is not the only factor impacting adopting healthy lifestyle behaviours and stress management among people from ethnic immigrants’ groups; religiosity may play a similar role in immigrant patients’ life experiences with CVD (Davidson et al., 2007).

In addition to different immigrant groups having an increased prevalence of CVD and associated risk factors, Arab populations in host countries are particularly affected (Abuelezzam et al., 2018; El-Sayed & Galea, 2009; Hatahet et al., 2002). Suwaidi (2016), after conducting a review of the literature, concluded that there had been limited research about CVD, potential risk factors, and preventive behaviours among this group. A recent qualitative study in Australia aimed to explore the health care challenges and needs of Arab immigrants with CVD by focusing on communications barriers (Abdelmessih et al., 2019). Up to this point, there have been no known studies specifically focused on acculturation, religiosity, and healthy lifestyle behaviours among Arab immigrants in the related to CVD. The purpose of this study is to identify and understand the challenges related to acculturation and religiosity in adopting healthy lifestyle behaviours and managing stress to prevent CVD among Arab immigrants.

We collected data through focus group discussions to answer the following research questions:

1. How do Arab immigrants consider healthy lifestyle behaviours and stress management to prevent CVD in the Canadian context?
2. What is the relationship between the identified coping strategies and acculturation and religiosity as perceived by participants?

Review of the Literature

Religiosity and Cardiovascular Disease Risk Factors

Religion is not a difficult concept to define, but each effort to define it may be influenced by the analysis of religiosity from the point of view of the author. According to Koenig et al. (2012), religion as a multidimensional constructed organized system of life with components of beliefs, practices, rituals, and symbols facilitates understanding the relationship between people and their proximity to the sacred or transcendent and the interpersonal relationship. We cannot say that religion is just a set of beliefs and rituals. In general, religion's power in promoting a healthy lifestyle and preventing risk factors may be seen as a coping resource among patients with CVD more than prevention resources among healthy people (Powell et al., 2003). However, religiosity with its different dimensions may play a positive role to prevent CVD. Religiosity may be used as a potential coping method for patients with heart failure to find peace and a sense of deeper meaning in their lives and accept their inability to control everything (Naghi et al., 2012).

A systematic review about the relationships between religiosity and CVD risk factors found lower levels of psychological stress associated with a greater level of religiosity among patients with CVDs (Lucchese & Koenig, 2013). Another review about religion/spirituality and both mental health and physical health stated religiosity as a coping strategy to face various stressful situations (Koenig, 2012). In this context and from a review that examined knowledge about religion and spirituality in the context of behavioral medicine, the practice of health behaviours could be influenced by religious involvement through the psychological stress level and social support (Park et al., 2017). According to Naghi et al. (2012) in their review to discuss the effects of spirituality and religion on outcomes in patients with chronic heart failure, patients who are more religious experience significant reductions in stress, depression, and symptom burden. As well, religiosity may provide religious people with higher levels of well-being, happiness, or life satisfaction with more positive emotions that predict a reduced risk of CVD (Lucchese & Koenig, 2013). In the same context, living with a high level of religious involvement may positively reflect on the social support for patients with CVD as the most common source of social support for patients, after the family support, comes from religious organizations (Koenig, 2012). Religious beliefs, involvement, and coping are also seen as a preferred ways to promote a healthier lifestyle and adopt healthy behaviours (Park et al., 2017).

Risk Factors for CVD among Arab Immigrants

The prevalence of CVD risk factors among Arab immigrants may not be much different from the general population. One related survey-based study by Liu et al. (2010), however, did include Arab people when examining the prevalence of CVD risk factors in various Canadian ethnic groups through data from the Canadian Community Health Survey (years 2000, 2003, and 2005). The findings indicated that people from Arab backgrounds were more likely to smoke and be obese (Liu et al., 2010). The high prevalence of CVD risk factors was observed in home countries as many Arab countries have the highest levels of physical inactivity and unhealthy diet leading to obesity that has reached an alarming level (Rahim et al., 2014). According to Suwaidi (2016) in his review of the literature, limited research has been conducted about CVD and potential risk factors and preventive behaviours among Arab Americans living in the United States. In most studies, greater attention has been given to Arab people living in the United States by comparing their morbidity or mortality rates to those of the general population or other minority groups. Two studies have synthesized the literature on Arab "Americans' health. In the first, Yosef (2008) conducted a descriptive review related to

the health of Arab Muslims in the United States, and he found an increased risk for several ailments, such as heart disease, diabetes, and cancer. Later, El-Sayed and Galea (2009), in their systematic review, synthesized the literature related to the health of Arab Americans living in the United States, and although they found a similarity between this population and the general population in determinants of common morbidities, they highlighted evidence showing that acculturation, immigration, and discrimination-associated stress are potential causes of CVD, diabetes, and mental illness, especially for those who were born abroad.

Some preliminary work has been carried out in some locations in the United States to evaluate the prevalence of CVD risk factors among Arab Americans. For example, in order to evaluate the prevalence of CVD risk factors and associated behavioural factors in 352 participants from Arab Americans in southeastern Michigan, Hatahet et al. (2002) found in their cross-sectional descriptive study that several CVD risk factors, including obesity and physical inactivity, were associated with differences in gender and age (Hatahet et al., 2002). In the same context, CVD risk factors were evaluated by Qahoush et al. (2010) in a sample of 180 Arab women in southern California, and the cross-sectional descriptive study indicated that significant risk factors in this group were physical inactivity and low self-efficacy. Also, in southern California, Tailakh et al. (2013), by a cross-sectional descriptive study, reported higher rates of hypertension and prehypertension among Arab people with lower levels of awareness, treatment, and control of hypertension rates than the national rates overall (Tailakh et al., 2013). Another cross-sectional descriptive study by Tailakh et al. (2016) examined the relationship between lifestyle behaviours, including physical activity, nutrition, and weight control, acculturation, medication adherence, and blood pressure control among hypertensive Arab Americans, and a significant direct relationship was found between levels of acculturation and adherence to medications and physical activity and blood pressure control.

Study Rationale

Cultural background and religiosity become important factors in the recovery process from illness and surgery, to help individuals cope positively with health conditions, disease, pain, and life stress as a part of a patient-centred care approach (Puchalski, 2001; Sargeant & Newsham, 2012; Whitley & Drake, 2010). Despite the importance of cultural background and religiosity for Arab people (Amer & Kayyali, 2015), no studies, up to this point, have primarily investigated the concept of religiosity and its role in CVD prevalence, risk factors, or prevention among individuals from Arab communities in countries in the Global North. Only Yosef's (2008) review study has focused on the Islamic religion's cultural influences on health and health-related behaviours. He reviewed studies related to the health of Arab Muslims in the United States who faced some barriers related to religiosity (modesty, gender preference, and illness-causation misconceptions) in preventing, detecting, and treating diseases such as CVD (Yosef, 2008). The challenges of acculturation and religiosity in adopting healthy lifestyle behaviours and managing stress have rarely been studied using qualitative research. We focused on religiosity and acculturation to explore the role they play in coping strategies and managing stress and lifestyle behaviours.

To study these factors in the Arab community, we listened, first, to key informant individuals who belong to the same community, speak the same language, and share the same ethnic culture, before exploring the perspective of Arab individuals with CVD in the next research steps. The key informants with previous health-related knowledge and similar acculturative experiences as Arab immigrants should be able to reflect first-hand knowledge about the challenges related to acculturation and religiosity in adopting healthy lifestyle behaviours in their community. Therefore, the perspective of Arab community health promoters (known as community-based health workers) is considered in this study as they are

the most trusted key informants who share community life experiences; as such, they can be considered a useful link between health care providers and community members (Kim et al., 2016). The community health promoters' experiences and perspectives are rarely considered by researchers studying health issues related to Arabic communities in Ottawa.

Researcher Context

This study is the first in a series of three studies which HB is conducting for his Ph.D. in Rehabilitation Sciences. Findings from this study will be used in the two follow-up studies, a cross-sectional observational survey study with Arab individuals diagnosed with cardiac events or at high risk for CVD and then a qualitative study with some participants from the second study who had cardiac events while living in Canada to understand their lived experiences and the impact of their culture or religiosity on recovery and their rehabilitation following cardiac events. HB, a physiotherapist by training, facilitated all the focus groups based on his previous experience in collecting data from stakeholders in health promotion community-based projects with international non-profit organizations. HB was a volunteer with the Canadian Arabic Health Coalition (CAHC) in 2014. The second author, JK, is HB's Ph.D. supervisor who supervised all steps of this study as well as the overall project. JK is a physiotherapist with a Ph.D. and an associate professor with extensive experience in conducting qualitative research projects, including projects with people living with CVD.

Method

Study Design

To learn from the key informants' perspectives about the challenges among Arab immigrants related to acculturation and religiosity regarding adopting healthy lifestyle behaviours, focus group discussions with a semi-structured approach were used. The focus group method helps encourage participants to interact and discuss their experiences and insights in a limited time (Krueger & Casey, 2014). An inductive thematic analysis approach was used to identify themes. The study was reviewed by and received ethics clearance through the University Research Ethics Board at the University of Ottawa (number: H12-17-04).

Participants

We sought to obtain perspectives from Arab participants who had a health promotion role in Ottawa. As health promoters, their role is to help people in the Arab Community to adopt healthy lifestyle behaviours, such as quitting smoking and increasing exercise to help community members prevent cardiovascular diseases.

We used non-probability purposive key informant sampling based on our perspective that CAHC members were experts with first-hand knowledge in health promotion among Arab communities in Ottawa. All CAHC members belong to the Arab community, speak the same language, and share culture. Tongco (2007) recommends this type of sampling approach to be used to gain the perspectives of experts when studying cultural issues. It is also suitable to explore cultural and social meanings, for ethnic immigrants' groups or populations, within an in-depth study with the key informants who have the most extensive expertise in the targeted research topic (Trotter, 2012).

The CAHC of Ottawa, which was established in 2006, consists of volunteer members who are Arab adults from different health profession backgrounds such as medicine, pharmacology, nursing, and other varied backgrounds. They are aged 18 years and older, live

in Ottawa, have been residents in Canada for at least three years, are almost all Muslim or Christian women, are Arabic/English speakers, and include members of other local or religious Arabic community organizations or centres. To recruit participants, HB met with the chair of the CAHC to ask whether they were interested in participating in this research. Next, HB attended a regular meeting of the CAHC to give its members a general idea about the research protocol. All interested members responded verbally to the chair during the CAHC meeting. Then, the CAHC members were invited officially by e-mail to participate in a focus group discussion at the SEOHC. No exclusion criteria were applied. Interested members were scheduled in three focus groups according to their availability and preferred dates. Members who were not interested did not give a reason for non-participation. The chair of the CAHC signed a confidentiality agreement to protect the participants' privacy and the confidentiality of all information relating to their identities.

Participants' Characteristics

Most participants were women (15 female participants), with only two men. Most participants identified themselves as Muslims (16 participants), with only one Christian woman. While the majority (15 participants) were first-generation immigrants, only two young women had been born and raised in Canada. All participants were bilingual (English/Arabic speakers) and highly educated, seven with bachelor's degrees, seven with master's degrees, two with medical degrees, and one with a collegial degree. Most participants had lived in Canada for more than five years; only two had lived in Canada for less than five years. Participants were from various home countries: 10 from Iraq, two from Lebanon, two from Syria, one from Algeria, one from Egypt and one from Palestine. The participants had various professional backgrounds: six from medicine, four in health promotion, two from nutrition, one chemist, one pharmacist, one health administrator, and one with an international development background. Their healthcare experience varied as three participants had experience between 21-30 years, four participants between 11-20 years, other four participants between 5-10 years, and six participants less than five years.

Data Collection

We collected data in February and March 2018 through three face-to-face focus groups, averaging 80 minutes in length, with 17 members from the CAHC. We followed Krueger and Casey's (2014) practical guide, which provides a step-by-step process of designing and conducting focus group research. We chose the focus group method to learn more about the commonalities and variation in participants' shared experiences (Krueger & Casey, 2014). By conducting focus groups, we sought to promote rich discussion among the participants, who might have some common experiences of working with people in health promotion. However, we also welcomed differences of opinion and perspective, which are best explored through group interaction; we were not seeking consensus. In this study, participants shared their own personal experiences as Arab immigrants and their professional perspectives as health promoters with first-hand knowledge in health promotion among Arab communities in Ottawa. Five participants attended the first focus group which lasted 90 minutes, eight attended the second one which lasted 120 minutes, and three attended the last focus group which lasted 60 minutes. HB facilitated the three focus groups, two of them were conducted on March 1, and the last one was conducted on March 6, 2019. During the data collection, we considered, recorded, and transcribed all responses word for word to minimize potential confirmation bias and pre-existing assumptions.

Focus Group Questions

HB developed these open-ended questions based on the literature review and the research questions. To avoid researcher bias, HB and JK discussed all focus group questions and revised the wording of some questions to avoid leading questions. HB also conducted a pilot test interview with the chair of the CAHC to see how the questions were understood culturally and linguistically. No changes were made to the questions after the pilot testing. This pilot test was not part of the data collection. The same questions were used for all focus groups. The first question, “How do you think Muslim and Christian Arab people see the impact of their new life in Canada on their health status” aimed to elicit answers about the meaning of a healthy lifestyle for Arab adults and the impact of living in Canada on their health status. The second question, “How do you think faith backgrounds or religious beliefs and practices affect their adopting of healthy lifestyle behaviours” aimed to elicit answers about the influence of faith backgrounds or personal beliefs on adopting healthy lifestyle behaviours. The third question, “How do you think people with CVD cope with their diseases in the Canadian context” aimed to elicit answers about Arab immigrants’ strategies to prevent CVD or to cope with it in the Canadian context. The fourth and fifth questions were, “What do you think are the main barriers to adopting healthy lifestyle behaviours” and “What do you think are the main facilitators in adopting healthy lifestyle behaviours?” They were aimed to elicit answers about barriers and facilitators when adopting healthy lifestyle behaviours. These five questions that addressed the research questions were used systematically in all focus group discussions; however, participants were encouraged to raise issues that may not have been addressed in the discussion.

Ethical and Cultural Considerations

Following ethical approval from the University of Ottawa Research Ethics Board, we proposed focus group discussions to participants in their primary language to accommodate different language proficiency levels to achieve maximal variation of perceptions and ensure the inclusion of all participants (Krueger & Casey, 2014). Participants had a choice to attend a focus group in their language of preference. Still, no one showed a preference for either English or Arabic as their language of choice during the discussions. HB asked focus group questions in both English and Arabic so that all participants could understand. Almost all sessions were bilingual in both English and Arabic. As all participants were bilingual, they did not request any interpretation during these discussions. While most participants preferred to express their thoughts in Arabic with mixing words from English, some participants sometimes preferred to speak in English with mixing words from Arabic. Female participants were also offered the opportunity to talk to a female facilitator or to be in a female-only group. Despite most participants being women, no participant asked to be in a female-only group or talk only to a female facilitator. Before each focus group, HB reiterated the purpose of the study to provide all participants with a clear idea about the research topic before reading and signing a written informed consent form.

Data Analysis

As data collected from focus groups were in English and Arabic, HB transcribed the digital recordings verbatim in Arabic or English without translation. Using an inductive thematic analysis (Braun et al., 2016), we conducted the data analysis in following steps:

Step 1: HB started the coding process, on March 1, 2019, during the data collection to establish patterns based on explored meanings by reading and re-reading each transcript to be

familiar with data and initial coding before developing, refining, and naming themes (Braun et al., 2016).

Step 2: HB highlighted each transcript using different colours to identify initial codes based on the main concepts in the research questions. HB used Word as a tool to reread the transcript, highlighting statements and quotations that helped in coding and finding subthemes. Without relying on the frequency of words in coding, HB preferred to read and reread all transcripts, and with reading he identified key thoughts related to acculturation, religiosity, healthy behaviours, and stress. These common thoughts represented initial codes. HB used the interaction between these initial codes to build a meaning categorized under a subtheme. Twenty-two initial codes emerged in this step (see Figure 1). As data were mixed in Arabic and English, data analysis was done by hand using Microsoft Word software; unfortunately, none of the qualitative data management tools support such mixed language data.

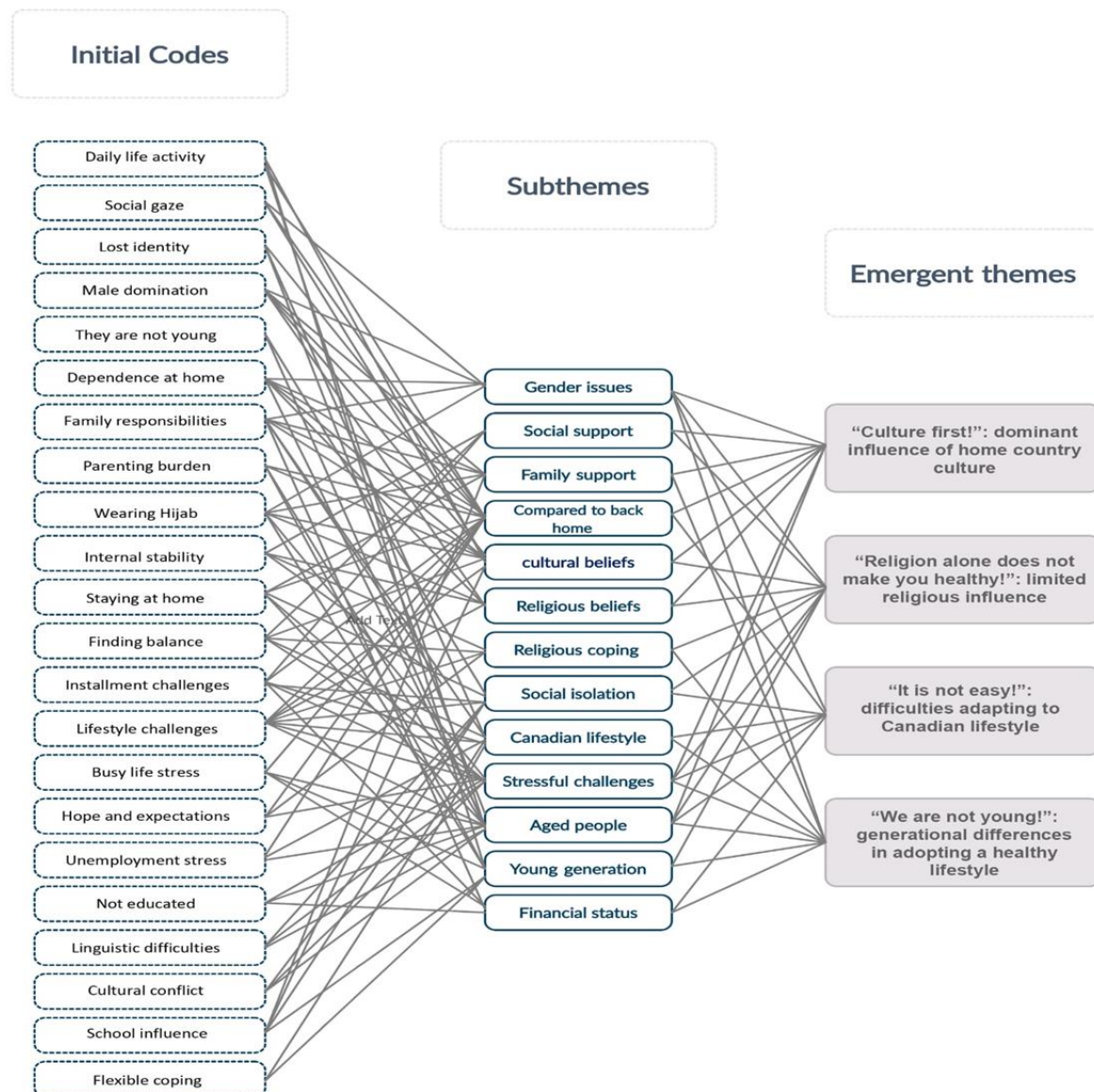
Step 3: The initial codes with various overlapped interactions were categorized into 13 subthemes to make sense of the pattern after coding. Some codes consisted together a cause, an explanation, a relationship, or a concept that could be emerged into a subtheme. For example, dependence at home, family responsibilities, social gaze, wearing Hijab, and male domination were joined into a gender issues subtheme. Participants found that the daily life activity of some Arab individuals, especially for older women, was influenced by their gender and influenced by the gaze of peers who may interpret their integration into the Canadian lifestyle as a loss of their cultural or religious identity. Women may also face a more social challenge in this way under the cultural male domination with more family responsibilities at home. All these interactions may be interpreted under the need for considering gender issues, categorized as a subtheme. Subthemes included gender issues, social support, family support, compared to back home, cultural beliefs, religious beliefs, religious, social isolation, Canadian lifestyle, stressful challenges, aged people, young generation, and financial status (see Figure 1).

Step 4: The categorized subthemes merged into four distinctive themes as HB interpreted connections identified among the subthemes based on the research questions and participants' narratives (Rabiee, 2004) in order to understand the participants' different perspectives and personal experiences. JK was involved in reviewing the initial codes and helping with categorizing the codes into subthemes and then themes.

Trustworthiness

We tried to minimize confirmation bias when analyzing data by checking the findings with the focus group participants. To ensure trustworthiness and rigour in this qualitative research (Creswell, 2013), HB presented these findings to the CAHC members to perform a type of member check (Gall et al., 1996), in order to judge the accuracy and credibility of collected and analyzed data. HB attended a meeting of the CAHC to present initial findings from focus groups and to gather feedback from the participants. Some participants attended this meeting, as did some members of the CAHC who had not participated in the focus group discussions. Participants accepted these initial findings without any objections. Participants who did not attend this meeting received a copy of results through the chair of the CAHC; however, these participants did not return any feedback.

Figure 1
Data Analysis Coding Conceptual Map



Results

The final themes were identified with illustrative quotations that were extracted based on meanings inspired by significant meanings and across descriptive categories. Coded data emerged to create four themes to understand findings from this study: "Culture first!": dominant influence of home country culture; "Religiosity alone does not make you healthy!": limited religious influence; "It is not easy!": difficulties adapting to the Canadian lifestyle; and "We are not young!": generational differences in adopting a healthy lifestyle.

"Culture first!": Dominant Influence of Home Country Culture

From most participants' perspective, the strong connection with the back-home culture influences Arab immigrants' daily lives, including lifestyle behaviours and stress management.

This cultural influence may be direct through cultural beliefs about diet and physical activity, or indirect through a different cultural understanding of social and family support.

Regarding diet behaviours, participants stated that these diet behaviours might be influenced by back-home culture when attending social gatherings where traditional food is usually served. One of the participants stated:

I mean, if friends hosted you at their home or a feast and brought you food that does not comply with your diet, do you think that you will not eat their food? This is an insult to them, and they will be upset! (HB translation from Arabic; Nehad, G2)

Another participant explained that generosity in serving traditional food means serving fatty and sweet food, even if you believe that it is not healthy:

We believe that traditional food is very delicious, even if it is full of fat or fried and contains a lot of sugar . . . Despite being used to cooking healthy food for my family, the situation is totally different when we have a feast and guests; my husband asks me to leave healthy food aside and cook traditional meals for guests. (HB translation from Arabic; Naseem, G1)

Regardless of the importance of physical activity, some participants found that perceived need for physical activity may be influenced by the back-home culture where physical activity depends on daily life activity. From the perspective of most participants, older people, either men or women, are the most affected people by this culture, in addition to some adults from the first generation who are less educated. Participants highlighted this cultural aspect as older people do not see sports or organized physical activities as part of the Arabic culture. Furthermore, they do not enjoy regular participation in single-gender adult and senior physical activity programs offered by religious centres. One participant also found that walking is a daily life practice for Arab immigrants in their back-home countries, but here, they walk less often: "At back-home country, I 'wouldn't use a car. I used to take a bus, but you 'couldn't rely on the bus there, so I was walking when missing my bus" (HB translation from Arabic; Wesam, G1).

The indirect influence of the back-home culture on Arab immigrants' behaviours may be social isolation due to the lack of social or family support. Participants found that social support in their back-home countries is incomparable as no one feels alone at any time among family members, neighbours, and friends. They miss this social and family support while living in Canada, especially for women and older Arab immigrants. Some participants stated that social isolation is one of the main challenges that may impact Arab immigrants' health in stress and mental health issues. Zain found that the Canadian lifestyle and the Arabic culture played a role in this stress:

I think ... a lot of these people [Arab immigrants] coming from towns where everyone knows each other. But here [Canada] you could be living in an area without even knowing your next-door neighbour, [with living] in more excluding environment and very more rushed environment which also affects people's mental health. (Zain, G3)

Another participant indicated the negative peer pressure that some recent Arab immigrants face when they try to be more integrated into the Canadian lifestyle:

You come to Canada, and you are a part of the community even if you want to go to workshops for so and so, you want to take that step, you have this feeling of people looking at you, are you really want to start becoming Canadian? You want to change? (Noor, G1)

As well, the social isolation feeling among women might be influenced by the lack of family and social support, especially from male relatives. The lack of support from husbands, fathers, or brothers may be related to male domination in their culture of origin, which may even prevent women from attending health promotion programs. Ward explained this point:

Some men think that these programs may change women thinking. Personally, I know of not a few cases in which men are afraid of the new environment in Canada because they see it as a challenge in general, especially afraid from losing some of the control power that they accustomed to in back-home countries, for this reason, they become more dominant to control. (HB translation from Arabic; Ward, G1)

Another participant added that this lack of family support might start in early childhood years:

I remember when I was a child, I was riding a bike. But when I was 13 years old, my father took the bike away and said that I became an old girl, and it is not suitable for me to use a bike! (HB translation from Arabic; Wesam, G1)

However, some participants found that family support may negatively influence older people's behaviours when prioritizing their caring among family members in the context of Arabic culture. This expectation may lead to negative results, as that makes the elderly family member more dependent on others and less physically active in their lives. As one participant stated, "When they become older, they start always depending on someone to help. In this way, they would be reliant and overweight by eating more as they are older, and they like to be treated like a spoiled person! (HB translation from Arabic; Nehad, G2)

"Religiosity alone does not make you healthy!": Limited Religious Influence

Some participants did not find a direct relationship between religiosity and health status and stress management. Baraa (G1) reported that cultural influence might affect Arab immigrants more than religiosity: "I think it depends on the culture acquired in the back-home country more than on the religious concept. The influence of the back-home culture may be seen clearly among people from the first generation" (HB translation from Arabic). However, some participants highlighted the indirect influence of religiosity on Arab immigrants in adopting healthy lifestyle behaviours, especially when talking about women, older people, or recent immigrants.

Wearing Hijab, an Islamic dress code for Muslim women, may bother some women when practicing physical exercises in the gym, running in the park, or swimming. Wesam (G1) said, "For example, we rarely see a veiled girl or veiled woman riding a bike! It is a little ... Why? While how many non-veiled female bikers do you see daily?" (HB translation from Arabic). In the same context, Taj (G2) explained how women might find Hijab as a barrier to practise physical activity: "When I go to the gym, I suffer, and my daughter suffers too. When she gets fed up, she can take Hijab off, but I cannot!"

She says we practice exercises and work hard; we sweat and feel abnormal heat!” (HB translation from Arabic). Although some physical activity centres serve only women, study participants do not think that Muslim women feel comfortable taking off their Hijab in a place with security cameras in each corner.

Participants mentioned that older people are not flexible in practicing physical activities or following a healthy diet if that may conflict with their religious rules. For example, one participant said that older people might refuse to participate in mixed-gender fitness or swimming activities because of religious issues. Wesam (G1) stated that elderly people might become passive in coping with disease or health conditions because they believe that all things are predestined: “Once at the mosque, when we conducted a workshop for women about cancer screening, a Muslim Arab older woman said, “cancer is from the Lord of the Worlds, what are you saying...? It is God’s justice; people cannot do anything!” (HB translation from Arabic). Other participants stated that feeling of social isolation might push Arab older people to seek this support from a higher power that helps them cope with health conditions or life challenges.

As well, participants found that this feeling of social isolation may push recent immigrants to use religious coping to face early stressful challenges. One participant mentioned that recent immigrants might turn to religiosity as a part of their identity to reach some internal stability. Another participant found that this return to religiosity as a coping strategy, may come late after a long time of stress in searching for a job, changing career, parenting, and facing cultural conflicts with children. In this case, religiosity may be the final decision for some people to find internal peace after various life failures. Some participants see this connectedness with religion in the installment time (first months in Canada) as the best way to find social support. Naseem (G1) gave an example: “Even social interactions with people at the mosque just give you that feeling, and sense of comfort and you feel you belong to a group” (HB translation from Arabic). As well, older Arab immigrants with some health conditions may find hope in religiosity as Shams (G3) said: “They just rely on religion for the hope, to accept their diagnosis that motivates them that’s OK, I’m not alone in this, God is with me!” In general, participants highlighted religion or faith for Arab immigrants as a spiritual power that may boost one’s self-confidence and lift one’s morale in the face of illness or stressful challenges.

“It is not easy!”: Difficulties Adapting to the Canadian Lifestyle

During the discussions, participants made comparisons when talking about adapting to the Canadian lifestyle as opposed to their home countries. In these comparisons, participants indicated differences in the Canadian lifestyle, as a society they are trying to settle in, that lead to stressful challenges during adaptation, especially for recent immigrants. However, some participants mentioned a positive side of living in Canada for those who can adapt quickly.

Regarding installment time, participants mentioned that the first months’ priority is to find a balance in the new life. They stated that Arab immigrants do not take care of their health status as their burdens and responsibilities increase; this is especially the case for families with young children. Taj (G2) stated, that “when we came to Canada ... we needed time to redirect our thinking, restore our calculations, find a job, get credentials evaluated, and find relatives and friends It is huge stress that, for sure, affects us!” (HB translation from Arabic). Participants gave examples of these stressful challenges such as employment, housing, parenting, communication, transportation, and weather which may reflect on their health in the form of stress and unhealthy behaviours.

Therefore, some participants found that sports activities were a luxury and not a priority for some Arab immigrants with low income. In the same context, the financial status may reflect on dietary habits. Some participants stated that unhealthy dietary habits might be related

to the low income of Arab immigrants who are not aware of the risks of fast food and junk food that is cheap and available anywhere. Some participants (G2) discussed this point as consuming these types of food may increase with stress, isolation, and sedentary time at home:

Rajaa: In the grocery store, I see many trollies filled with sugary drinks and snacks such as chips!

Taj: Do you know why? Because it's for one dollar. Go to the milk shelf, you will find it with \$ 5 ... it is a big difference!

Salam: But young adolescents need to eat a lot ... what can we do? ... (Laughs) Sincerely they need ...

Taj: Even adults need to eat more!

Salam: I mean, my son, for example, at midnight or after goes around the kitchen, so I always have to keep the fridge filled! [HB translation from Arabic]

As well, participants identify inclement weather as another factor that limits the active life of Arab immigrants. Zain (G3) stated this challenge for Arab older immigrants: "Weather is the thing that affects their transportation, affects their time for physical activity, even when getting out to see their doctor or getting out to have a social life."

Compared to Arab countries, which are generally considered warm, Canada is known for its challenging weather conditions in winter which can cause isolation, especially for older people.

"We are not young!": Generational Differences in Adopting a Healthy Lifestyle

Findings from this study highlighted the impact of cultural conflict between Arab parents and their children while living in Canada. Participants stated that these generational differences about cultural or religious beliefs might reflect on adopting healthy lifestyle behaviours. In this context, participants found that the young generation of Arab immigrants, even women, are more motivated to be active based on a strong knowledge about healthy behaviours and their flexibility in dealing with stressful life challenges that may be different from older Arab immigrants.

Participants found that Arab young people, especially those from the second generation, may adopt a healthy lifestyle with fewer difficulties related to religious or cultural issues. If they encounter such barriers, they try to be more flexible than their parents in adopting healthy lifestyle behaviours in the Canadian context. Rajaa narrated her personal experience with her son, who goes to a mixed-gender swimming pool while she has a religious concern:

I have a son [who] goes to the swimming pool. He tells me: "my religion guides me to take my eyes off ... so, why do I look to others?... I am obligated to go to a swimming pool with families ..., but I should take my eyes off them. So, I go there, and I don't care!" (HB translation from Arabic; Rajaa, G2)

One participant added that young people sometimes try to commit to a fitness program or a sport if they are encouraged by friends and financially able to cover the membership fees. This younger generation may not find exercising difficult, except for some religious Muslim

girls who wear Hijab and prefer to be active in an exclusively female environment. Participants pointed out that Arab women, mostly middle-aged or older, may not be encouraged to adopt healthy lifestyle behaviours because of their low income, lack of family support, and burden of parenting and housing responsibilities at home. Participants think that there is a need to design health promotion programs for older Arab women, respecting their cultural and religious needs and language and education levels.

In general, participants observed that practicing physical activity is easier for the Arab young generation. Salam (G2) linked that Arab younger people are physically active with the health education workshops that are offered to children at school: "Here in Canada, they have a good thing. In grade 1, they start teaching children about healthy food, and they have compulsory daily sports for children" (HB translation from Arabic). Such school programs aim to raise children's awareness about a healthy lifestyle and the importance of practising physical activity. Another participant said children might educate their parents with useful information about healthy food and behaviours. Still, when children turn into youth, they start eating fast food and junk food as they become busy or stressed in their education, job, and social life.

From most participants' perspectives, older Arab immigrants suffer more stress than Arab youth in facing challenges of adapting due to the change in their lifestyle following their migration to Canada. Participants reported that language barriers, transportation difficulties, lack of family support, and inclement weather might prevent older Arab immigrants from accessing available resources that may help them manage stress and adopt healthy lifestyle behaviours. However, Shams found that participation of older Arab immigrants in culturally tailored programs is limited, too:

Our religious centre rents a playground and ... we do some tournaments for soccer, for example, ... but you still need to push the older people [to participate]. The young people participate for fun, come to play and enjoy, but the older ones are tough, they may be interested in playing cards and drinking coffee. (Shams, G3)

Another participant explained why some older Arab immigrants might need encouragement to be active and go outside for a walk or to change their daily routines at home: "But older people, they don't have a social life that makes them interested in a healthy lifestyle ... I mean, we, at this younger age, maybe more interested, as we still have knowledge and attention" (HB translation from Arabic; Sabah G2).

On the other hand, some participants found that the young generation may suffer from strict parenting stress, family problems, and an imbalance between school and home culture that may reflect on their health. Some participants also reported that stress among the Arab young generation might be related to parents' burdens besides the stress related to the busy life and the cultural conflict between the Canadian lifestyle and their parents' culture. Some parents rely on their children to guide them as translators or navigators because of difficulties in communication as young people are more educated with excellent communication skills in English. However, despite all stressful challenges, findings indicated that Arab younger people are still more integrated into their social lives than older Arab people.

In brief, according to the CAHC's members, Arab immigrants find difficulties in adopting healthy lifestyle behaviours and managing stress, especially in their first years in Canada. Although some participants found that stress and unhealthy lifestyle are general problems and not specific to Arab immigrants, they indicated some cultural or religious overlapping factors in Arab immigrants' acculturation process.

Discussion

First, we aimed in this discussion to answer the first research question about the way Arab immigrants consider healthy lifestyle behaviours and stress management to prevent CVD in the Canadian context. According to the perspective of community health promoters, Arab women who were not born in Canada face more challenges in adopting healthy lifestyle behaviours related to physical activity. For Arab women, in general, these challenges are related to wearing Hijab (for Muslim women) and finding suitable places to practice physical activity in the exclusive presence of women.

This religious or cultural modesty is not only a barrier to healthy behaviours, but it was stated with other cultural/religious barriers that face Arab women in accessing the health care system (Yosef, 2008). These religious/cultural beliefs are not separate from other common barriers such as language, education, financial status, and family support.

In this context, while high-risk behaviours and physical inactivity were reported among Arab women (Qahoush et al., 2010), this association between physical inactivity and less acculturation was not reported among younger Arab American Muslim women in a recent study (Eldoumi & Gates, 2019).

It was clear that Arab health promoters in this study linked challenges that Arab immigrants face while living in Canada with their close connection to their back-home culture and difficulties in adapting to the Canadian lifestyle. In other words, Arab health promoters found that most of the Arab immigrants are less acculturated. Findings about the challenges related to acculturation in Arab immigrants' lives are consistent with some prior studies that have reported an impact of low acculturation on Arab people in host countries (Amer, 2005; Faragallah et al., 1997). In agreement with El-Sayed and Galea (2009), the data from this study revealed that the burden of immigration and lifestyle changes reflected negatively on the health status of Arab people in the form of stress that may lead to CVD and other physical or mental health illness, especially for those who were born abroad. In the same context, findings from this study resonated with findings from other studies stated that Arab people who are less acculturated tend to be less active in adopting healthy lifestyle behaviours (Aqtash & Van Servellen, 2013; El Hajj, 2012; Hardan-Khalil, 2019; Jaber et al., 2003; Jadalla et al., 2015; Tailakh et al., 2016).

Concerning the role of religiosity, Arab health promoters did not find a direct connection between religiosity and the health status of Arab people, as they consider religiosity to be an individual experience that is separate from daily life. Simultaneously, there were some grey areas between religiosity and culture, as it was not easy to distinguish religious issues from cultural issues in their perspective about the lives of Arab immigrants. Thus, it was at times difficult to identify if stress management or adoption of healthy lifestyle behaviours are impacted indirectly by religiosity or by Arab immigrants' culture. In countries of origin, cultural traditions may be more potent than religious beliefs. For example, people in their countries of origin may avoid participating in physical activity because it is not a part of the Arabic culture. However, after migrating to Canada, the same situation may be seen and justified from a religious perspective because some people become more religious following migration. This commitment to religion by Arab people when facing a new culture and a different lifestyle may be considered a strategy to maintain their identity. However, key findings of stress management highlighted religiosity's indirect impact on two central areas: coping with stress and receiving social support.

Discussions with 17 members of the CAHC as community health promoters present a rich source of information about health promotion challenges in Ottawa's Arabic community. Their perspectives are valuable in describing healthy lifestyle behaviours of Arab immigrants and their stressful challenges in the Canadian lifestyle context. However, this study has some

limitations; for example, the perspectives of Arab Christian people were not well represented with only one participant in this sample. The same observation was noted as this study's representation of male perspectives is limited, as most participants were women. Another possible limitation may be that all participants' educational attainment was post-secondary diplomas and degrees. As well all participants were fluent in English. Some of the participants spoke more than two languages. This high educational attainment level may have resulted in findings to one area of similar thoughts that may be different from less educated Arab immigrants.

In conclusion, from the perspective of Arab health promoters, some religious or cultural beliefs may be barriers in practicing physical activity, especially for women and older people. These barriers may be augmented with acculturative stress. As well, religiosity may play an essential indirect role in managing stress through socialization, family support, and adoption of coping strategies. Younger people in Arabic communities are more flexible than older people in dealing with these religious/cultural issues. All these factors need to be taken into consideration when designing culturally appropriate health promotion programs. It is also possible to adopt culturally appropriate community rehabilitation and fitness programs or resources to meet Arab communities' healthy lifestyle needs, including education sessions, exercise sessions, and CVD risk factor screening and assessment.

This study will be followed by studies (quantitative study and qualitative study) to explore the level of religiosity, religious coping, and acculturation, and to what level these concepts may be associated with perceived stress and healthy lifestyle behaviours among Arab people diagnosed with cardiac events or at high risk for CVD. Other further areas of research would be to explore how a commitment to religion by Arab people could be used as a strategy to maintain both their identity but as well used to get social support and maintain mental health. Moreover, longitudinal studies focusing on socioeconomic factors such as income, education, work status, and social support could be conducted to assess the effectiveness of health promotion interventions in Arab immigrants' communities. Findings from this study could contribute to the overall picture of immigrants' preventive health behaviours in host countries.

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Author Note

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