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### **Paper:**

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**Title:** An Intersectional Exploration: Experiences of Stroke Prevention in Middle-Aged and Older Arab Muslim Immigrant Women in Canada.

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**Abstract:**

*Background:* Arab immigrants have increasing rates of stroke and uncontrolled stroke risk factors coupled with minimal resources for stroke prevention.

*Purpose:* This article describes the results of an interpretive descriptive study about Arab immigrant women's experiences of practicing stroke prevention. We use an intersectionality approach to discuss some of the factors that influenced women's ability to manage their health.

*Methods:* Sixteen middle-aged and older Arab Muslim immigrant women were recruited between 2015 and 2016 from two religious centers in an urban Canadian center. Women were between the ages of 45 and 75 years, were living in the community, and had a combination of stroke risk factors. Semi-structured interviews lasting 2–3 h were conducted in Arabic by the primary bilingual researcher. Data analysis was completed in Arabic, with final themes and exemplars translated to English with the support of a certified translator.

*Results:* Study themes include relating life stressors to physical health, pursuing knowledge in the dark, negotiating medication and treatment options, making an effort to eat healthy and be active, and identifying triple ingredients for empowerment.

*Conclusion:* Economic status, access to transportation, language fluency, life stressors, and personal coping strategies influenced Arab women's ability to manage personal health.

**Keywords:** Arab, Muslim, immigrant, women, qualitative approaches, stroke prevention

## Introduction

Stroke is a leading cause of death worldwide (World Health Organization, 2014), with the risk of stroke doubling every 10 years after the age of 55 (Public Health Agency of Canada, 2011). Recommendations for stroke prevention include dietary modification, exercise, diabetes and hypertension control, and use of pharmacological agents to reduce incidence of vascular events (Coutts et al., 2015). There is ample evidence that these prevention strategies work across ethnicities (O'Donnell et al., 2016). The ability to engage in stroke prevention strategies, however, is influenced by personal health beliefs and practices and by larger social structures and processes that regulate access and use of health resources. Arab populations and Arab immigrants living in Western nations have higher rates of uncontrolled stroke risk factors (Musaiger & Al-Hazzaa, 2012), more debilitating stroke events (El-Sayed, Tracy, Scarborough, & Galea, 2011), and less knowledge and resources for stroke prevention (Ali, Baynouna, & Bernsen, 2010; Gholizadeh, DiGiacomo, Salamonson, & Davidson, 2011) in comparison to other immigrant and non-immigrant groups. Yet, there remains a dearth of research on stroke prevention and management approaches in Arab populations (Hammad, Said, & Arfken, 2014). Few researchers in Canada are looking at Arab immigrant health. Arab immigrants are one of the largest non-European ethnic groups in Canada and immigration from Arab countries is projected to increase (Statistics Canada, 2007). Generally, Arab Canadians are more likely than the general population to have post-secondary education, to have lower income, and are relatively younger with the majority arriving in Canada from the 1990s onward (Statistics Canada, 2007).

In Canada and other Western contexts, Arab immigrants report challenges in accessing and utilizing health-supporting resources, emphasizing the need for linguistically and culturally appropriate health literacy material, education for new immigrants on the healthcare system, and

education for healthcare professionals on the cultural and religious practices of immigrants (Al-Bannay, 2008; Alzubaidi, Mc Namara, & Browning, 2017; Hasnain, Connell, Menon, & Tranmer, 2011). Little is known about Arab immigrant women's experiences of managing health in the context of stroke prevention. Women present with greater post-stroke disability and poorer recovery in comparison to men, which is partly explained by older age of stroke onset, poorer pre-stroke functional status, multi-morbidities, and poorer social support (Appelros, Stegmayr, & Terent, 2009; Persky, Turtzo, & McCullough, 2012). Immigrant women can be particularly vulnerable to challenges with managing personal health because of diminished social support and decreased opportunities for social integration and economic advancement (Hynie, Crooks, & Barragan, 2011; Guruge, Thomson, George, & Chaze, 2015; Neufeld, Harrison, Stewart, Hughes, & Spitzer, 2012; Sethi, 2016; Vissandjee, Desmeules, Cao, Abdool, & Kazanjian, 2004). In this article, we examine the results of an interpretive descriptive study on the health experiences of middle-aged and older Arab immigrant women. The focus of the study was stroke prevention practices such as managing chronic illnesses, making healthy lifestyle adjustments, and accessing supportive health resources. An intersectional approach was used to guide the research process and frame study findings.

### **Theoretical Approach**

Intersectionality was a major informing perspective in this study. When contextualizing women's experiences and explaining influences on health, our aim was to focus on the fluid and interrelated social locations women occupy across their life course. Intersectionality approaches incorporate other dimensions of social identity into the study of gender, by examining the inter-relatedness of social categories, the operation of power in the formation of social categories, and the resulting lived realities of those who inhabit multiple social locations (Crenshaw, 1991;

Collins, 1999). Intersectional theory is used in immigrant health research to illuminate micro and macro structures of power that operate in women's lives within the unique social spaces that they occupy (Koehn, Neysmith, Kobayashi, & Khamisa, 2013; Sen, Iyer, & Mukherjee, 2009; Veenstra, 2011). Social identities and positions are seen not as static, essential to a group or inherent qualities of a person but rather as emergent, fluid, and contingent on hegemonic and micro operations of power (Anthias, 2012; Dhamoon & Hankivsky, 2011). Adopting an intersectional lens meant framing interview questions and analyzing data with attention to the social, economic, and cultural factors that shape women's health experiences and that influence personal agency in managing health.

## **Methods**

Interpretive Description [ID], a non-categorical qualitative research design, was used to understand the life experiences of Arab immigrant women with managing health and decreasing stroke risk. Interpretive Description focuses on knowledge development using a combination of data collected in the research field, prior knowledge in the area, and abstract theorization (Thorne, 2016). An ID approach relies on co-construction of meaning between participants and researchers, where the researchers' past experiences and social positioning is seen as influencing the research process. The primary researcher who was fluent in Arabic and English and familiar with the culture of participants conducted all aspects of the research study.

## **Recruitment**

Successful recruitment depended on building trust between the researcher and the target community. The primary researcher participated in religious events and community activities over a period of one year and connected with community gatekeepers to identify potential research participants (see Authors, 2017a). The study was, also, advertised using recruitment

posters at multiple religious and community organizations. Recruitments occurred at two community religious centers that showed interest in supporting the study. Community gatekeepers identified potential participants and gained verbal consent to be contacted by the researcher. Inclusion criteria were self-identifying as an Arab immigrant woman and having one or more stroke risk factors and/or having experienced a stroke event. Sixteen women were recruited altogether using purposive sampling, followed by theoretical sampling to further understand some of the emerging themes. Sample size depends on whether sufficient data have been collected to render the question answerable in a way that advances knowledge (Morse, 1991). Data saturation was defined as the repetition of similar patterns of experiences around stroke prevention in women's stories.

### **Data Collection**

The University of Alberta Human Research Ethics Board approved the research study before commencement of research activities. Data collection occurred between June 2015 and May 2016. Data collection consisted of semi-structured interviews and socio-demographic/health questionnaires. All participants chose to be interviewed at home, except one who was interviewed at a mosque. The primary bilingual researcher conducted all interviews in Arabic or a combination of Arabic and English depending on the comfort and language fluency of participants. Interviews lasted between 2-3 hours. Health data collection was based on personal reporting and participants were often unaware of particular aspects of their health profile, such as blood pressure readings, terminology of medical diagnoses, and rationale for certain prescriptions. Fourteen interviews were audio-taped and transcribed verbatim in Arabic by the primary researcher. Two interviewees were uncomfortable being recorded and the researcher

instead took notes during the interview. A research assistant who was fluent in Arabic confirmed the accuracy of a random selection of interview transcripts.

### **Data Analysis**

An ID methodology relies on constant comparative analysis processes, originating from grounded theory, to understand human phenomena (Thorne, 2016). Preliminary data analysis was done manually in Arabic to ensure the original meanings of texts were not lost in translation; Arabic words and expressions can have multi-layered conceptual meanings which are not easily translated into English (Nurjannah, Mills, Park, & Usher, 2014). To enhance trustworthiness, the first few interviews and preliminary data analysis results were translated to English early on so that a second non-Arabic speaking researcher could identify areas needing further investigation and comment on the data analysis process. The first step of data analysis, immersion into the data, consisted of reading and re-reading interview transcripts. Taking a bird's eye view of the data was followed by a coding process that involved generating categories and searching for connections across categories. The last step was development of themes where patterns of similarity and difference in experiences were identified while simultaneously looking at the contextual factors that influenced these patterns (Sandelowski, 2003). Final quote exemplars were translated to English for publication. Following recommendations of other cross-language researchers (Croot, Lees, & Grant, 2011; Squires, 2009), the focus of translation moved away from literal translation to conceptual equivalence. Conceptual equivalence in translation means preserving the original message and intent of participants' words across languages. A certified translator made the initial translations of quote exemplars and the primary bilingual researcher compared these translations to the original transcripts and made adjustments to ensure conceptual

equivalence. This approach was chosen because of the researcher's linguistic and cultural competence in Arabic and English.

### **Experiences of Engaging in Stroke Prevention Strategies**

In total, 16 community-dwelling middle-aged and older Arab immigrant Muslim women from the Levant region (specifically from Syria, Lebanon, and the Palestinian Territories) were recruited for this study. Participants were between 45 and 75 years of age and had all been in Canada for ten years or more at the time of the study. Education levels ranged from illiterate (4/16) to some secondary (11/16) and post-secondary (1/16) education. The majority of women had little to no fluency in English with only one participant being fully fluent. Seven out of the 15 women explicitly indicated they were on some form of low income government assistance, but yearly income was inaccessible for other women who were hesitant to disclose this information. All the women in the study were living with one or more self-reported stroke risk factor such as sedentary lifestyle, smoking, obesity/overweight, cardiovascular disease, and diabetes. All the women were on medication to manage their chronic illnesses. Five of the 16 women had experienced a stroke or life-threatening cardiac event. The study results center on five themes: (a) associating physical health with life stressors, (b) pursuing knowledge in the dark, (c) negotiating medication and treatment options, (d) making an effort to eat healthy and be active, and (e) identifying triple ingredients for empowerment. Some details in women's quotes have been changed to ensure anonymity in a small Arab immigrant community.

#### **Associating Physical Health with Life Stressors**

Women's experiences of being diagnosed with a chronic illness or suffering a health-altering event were connected to experiences of loss, sadness, or crisis. Often women identified significant life events as having a direct impact on their well-being, especially when those events



were connected to the well-being of their children. One woman, in narrating a story of her son's divorce, said, "From then on the problem developed; I got high blood pressure, high cholesterol, and I started from that time to take blood pressure medication. I was okay before that. After this there was too much stress." (Participant 13). When asked about the cause of her diabetes, a second woman replied, "It came from sadness, because I have no family history. It came from sadness. I was sad about my eldest daughter and I got diabetes from crying and being sad...Life's stressors are hard..." (Participant 2). While another woman who recently had a stroke and was grieving the recent death of an adult child stated:

I feel misery inside me. I feel tired always, tired. There is not one day I get up and my head is calm....the first year the child died I lost lots of weight...from then on the high blood pressure started. It all started (referring to health alterations)...from that point I started to take medication for my blood pressure. (Participant 6)

These life stressors had psychological and emotional implications, where women described experiencing symptoms such as chronic headaches, insomnia, anxiety, and restlessness, as indicated in the following quotes, "This is life and I get very nervous and anxious. People used to say I speak shouting, but I don't think I do..." (Participant 8), and "I now go to sleep but I am not sleepy. All the troubles come to you when you have your head on the pillow..." (Participant 10). These symptoms were only reported to physicians when severe, but were not described by participants in terms of mental illness. Rather, women saw the stressors in their lives, their chronic illnesses, and their mental and emotional states as inter-related and counter-influencing.

## **Pursuing Knowledge in the Dark**

The majority of women with stroke risk factors such as diabetes and hypertension were not aware of the signs and symptoms of a stroke despite recognizing their high risk profile, “Strokes, I know nothing about it, but I hear people say this person had a stroke, that person died from a stroke....they say it relates to blood but I don’t know.” (Participant 2) Many women lacked knowledge in crucial aspects of managing their chronic conditions and preventing potential complications, “He (doctor) said your blood pressure is a bit high. What the symptoms are, what I should eat, what I should do, I don’t know....I need more information about diabetes and high blood pressure.”(Participant 4).

The five women who had experienced a health-altering event described themselves as being caught off guard, unaware of their risk profile. A woman stated, “I never imagined that a heart attack can happen because I am walking, do not eat fatty foods or have high cholesterol... the heart attack came from nowhere.” (Participant 3). A second woman said:

I told all my doctors that I exercise and I am worried about if I should stay at home and stop exercising. Why did this happen to me? I do all this exercise and I still got a stroke, so from now on I do not want to exercise. They (doctors) answered: ‘Wait, wait, if it wasn’t for the exercise you wouldn’t be as good as you are now.’ (Participant 12)

Generally, women spoke positively about their experiences with family physicians and saw them as supportive in managing health concerns. Women who had limited English proficiency searched for physicians who spoke Arabic or women asked family members to accompany them to appointments. Lack of physician time and limited English proficiency of women were main factors hindering access to information, as exemplified in the following two quotes, “Doctors are not giving attention like before and they are all in a hurry...” (Participant

13), and “They are very good, they give attention and are calm.... my doctor is Libyan because we are not strong in English, meaning if I answer in English wrongly I would not benefit.” (Participant 11). Family doctors were primary sources of health information. Often physicians informed women about needed lifestyle changes, such as smoking cessation, exercise regimens, or dietary changes but women still lacked information on how to implement these recommendations. Arabic internet sites, for those who were computer literate, and television programs were sources of health knowledge as well. One woman who was an active community member commented, “I think they (women in the community) need someone to tell them, like lectures here, and tell them the cause for diseases, something like that.” (Participant 12).

### **Negotiating Medication and Treatment Options**

Women generally had a negative view of taking medication. They described attempts to stop prescribed medication or decrease dosages, sometimes without consulting their physicians. Lack of symptoms was often interpreted as licence to stop a medication. Women, also, had conflicting emotions when physicians prescribed medication they thought was unnecessary or failed to manage symptoms. These emotions either led to conflict with physicians or led to women discreetly stopping medication or adjusting dosages. After experiencing a stroke at a young age one woman discussed her decision to stop prescribed preventive medication, “...when I got better I said I don’t want to take it. I hate medicine. I don’t want my body to get used to medication” (Participant 10). Another woman showed the interviewer a bottle of pills, “Medication for my bones. I haven’t taken it for three months. I want to give my body a rest...you have to take it and not eat cheese and not eat yogurt while all my diet is made of cheeses...” (Participant 2). Reluctance to start medication newly prescribed was noted as well, “Sometimes I leave it (medication) for two months without buying it Sometimes I buy it and put

it in the closet. I take it for a few days and then stop taking it. What do I need it for?” (Participant 7)

Travel, financial pressures, and heightened caregiving strains were noted, in some cases, to result in decreased medication adherence. Women felt taking medication was cumbersome, unnecessary, or thought that giving their bodies relief from medication would be beneficial:

It all costs money, expense on us, I told the doctor I want to stop some of the medication he said no, no, no you cannot stop medication. When I went to the hajj (Muslim pilgrimage to Mecca) I stayed three months without taking anything. Thank God I was okay. When I returned from the hajj I told the doctor I stopped the medication for three months. He said: ‘You are crazy,’ He is Canadian... ‘tomorrow you will have strokes or heart attacks or something.’ So I started taking them again. (Participant 14)

Many women had limited health coverage beyond their public health insurance, which in Canada covers mostly acute and emergency healthcare needs. The added expense of covering medication and treatments costs in the community created considerable financial strain. When asked about diabetic foot care, one woman answered, “Sometimes I go and they take 65 dollars....I used to go to the doctor... He used to scrub them for me and fix them but I didn’t go again. I do them at home.” (Participant 2). A second woman said, “Everything is expensive for us....They used to help pay for diabetic pills but they stopped...They don’t pay for these anymore. A diabetic test strip costs a dollar...” (Participant 14). A third woman commented: “I think with old age pension they should give people a little more, what they give is not enough.” (Participant 7) Women’s stories point to access disparities within a public health system that limits funding for medication and community-based health resources.

## **Making an Effort to Eat Healthy and be Active**

Lifestyle changes such as diet and exercise were the most discussed issues in the context of stroke prevention. Healthy eating was considered crucial for maintaining overall health and women tried to focus on making healthy choices. Unhealthy diets were defined as overeating and diets high in fat and animal protein, “I treat myself...my body gives me the information...I watch what I eat, if something bothers me I avoid it.” (Participant 16), and “when I watch what I eat I feel there is a difference...this is what is protecting me from gaining a lot of weight.” (Participant 8) There was a lack of information for many women on specific restrictions and modifications related to chronic illnesses such as diabetes and hypertension. One woman described her frustration, “...sometimes I eat potatoes and everything and my sugars are four (low) and sometimes I find my sugars are 15 (high), like yesterday, I don’t know, something is wrong, something is wrong with my body...” (Participant 2)

Healthy eating was something the women managed better than physical activity. Most frequent physical activities described were walking and housework. The difficulties with maintaining adequate physical activity levels were attributed to chronic pain and mobility issues coupled with limited knowledge of appropriate exercise modification strategies, “I would like to walk, when I walk a little my back hurts...” (Participant 7), and “...I get up to the kitchen and do a thing or two, then my back hurts and I sit on the chair. This is not movement. Housework is tiring. It is not exercise. What to do...” (Participant 1). Household obligations, such as cleaning and cooking, and caregiving roles left women feeling they had little time for exercise. Transportation issues, weather, and difficulty finding culturally appropriate exercise facilities were other cited concerns:

I am not good at exercise. I exercise at home running here and there, I don't sit...I walk in the house a lot, go up and down the stairs...to exercise where they do exercise I find men there and such... (Participant 5).

### **Identifying Triple Ingredients for Empowerment.**

Women referred to personal faith, English competence, and the ability to drive as empowering factors that enhanced personal agency in managing health. Women who described themselves as healthy were more likely to drive and have a better command of the English language. Speaking English and driving facilitated access to health-supporting resources in the broader Canadian community especially as they began to grow older. English language fluency and the ability to drive were determined often in the re-settlement phase. Work outside the home that involved isolating labor work or family businesses offered little opportunity for socialization in English. For the majority of women access to English as an additional language [EAL] classes was hindered by childcare responsibilities, lack of support from family members, and transportation difficulties. One woman described these challenges, "I studied at (name of immigrant women service organization)...my son was a baby, I got a babysitter and he kept crying...in the end I learnt a little from television, from life. (Participant 1). A second woman described her experience:

I said I want to learn (to become literate) and go to school. I would go 8 in the morning and finish at 2 pm and then return to work. I would finish work 6, 7, or 8 pm and come home. You have to cook, you have to clean, there are kids, and my husband is at home with an injured hand. I learnt a little and felt I wasn't benefiting. Everyone else was advancing in class but I did not have time to study. I would come home and need help but there was no one to help me. So I said I am not going any more...I removed education from my plans...

(Participant 9)

Driving was viewed as a pressing necessity when spouses worked out of town or when women needed to engage in family related errands, “I go visit people, friends and run errands. If my husband can’t drive, he is sick, I take him to the doctor...driving is very helpful for a woman, especially in this country.” (Participant 13) Another woman expands on this further:

The thing that helped me make life easy for both of us is he pushed me to drive...One time I had an appointment with the doctor and he forgot, so I called him at work and said that we have to go to the doctor and he said: ‘ That’s it, you are going to drive.’(Participant 7)

Women saw prayer, learning about their religion, and attending religious events as helping them build intrinsic coping abilities in the face of life stressors. Women’s religious perspectives included fatalistic notions of health and illness where God’s will determines health outcomes. This perception was balanced with Islamic teachings that emphasize personal responsibility for one’s health, being hopeful, caring for the body, and seeking treatment. After a health-altering event or life crisis, women described their experiences of connecting with God to gain strength. Praying and reading the Quran were effective stress management strategies. One woman described the impact of faith on overall wellness, “Faith helps you feel healthier, stronger, whatever happens to you, you say ‘thank God’ and if something happens to you, you don’t cry over it...” (Participant 7)

## **Discussion**

Women’s narratives highlight the role of personal agency in mediating, negotiating, and re-structuring barriers to stroke prevention. Personal agency is enacted within the constraints of

one's social position (Anthias, 2012). Immigrant women occupy fluid social positions across their life course that can both enhance and constrain personal agency in different ways. Images of a matrix have been conjured to describe the ways different social positions intersect to create unique pathways of privilege or vulnerability (Dhamoon & Hankivsky, 2011). Barriers to engaging in stroke prevention activities stemmed from life stressors, lack of health literacy, and limited financial resources. Factors that enhanced personal agency were having strong faith, a good command of the English language, and being able to drive (including access to a car). The factors that influenced personal health management in women's narratives were the result of their social positions as women, immigrants, and visible minorities in Canada. During periods of stressful transition, such as being diagnosed with a chronic health condition or experiencing a negative health event, many women in the study became increasingly vulnerable. Women who were more educated, had higher economic prosperity, and were more fluent in English were less vulnerable and were able to navigate the healthcare system and utilize health-supporting resources.

Stressful life experiences were blamed by women as the cause for their health problems. Asking women the question of 'why do you think this (negative health event) happened to you?', triggered stories about personal life stressors. The view of stress as a precursor of illness is rooted in cultural and religious interpretations of the body, mind, and spirit connection (Chaze, Thomson, George, & Guruge, 2015; Shah, Ayash, Pharaon, & Gany, 2008; Tirodkar et al., 2011). Women's stories show that the presence of life stressors, whether ongoing chronic stressors or one-time stressful events, resulted in negative self-rated health. Health was defined as mental, emotional, and spiritual well-being in addition to physical wellness. Women, also, neglected personal health during stressful periods of their lives by stopping medication, not



exercising, not eating well, and not following up on health concerns. Life stressors often originated from local and transnational caregiving roles and commitments coupled with minimal social support in Canada (Authors, 2017b). Religiosity, expressed as putting ones faith in God and using the healing properties of the Quran, was a stress-counteracting strategy. Other studies have shown psychological distress in Arab immigrant women (Aroian, Uddin, & Blbas, 2017; Irfaeya, Maxwell, & Krämer, 2008; Khatib, 2013), but there has been little on the connection between these experiences and the ability to engage in health-promoting behaviors such as stroke prevention. Arab immigrants, even with higher levels of education and affluence, identify stress and lack of effective stress management resources as influencing engagement in health promotion activities (Aqtash & Van Servellen, 2013; Gholizadeh, DiGiacomo, Salamonsen, & Davidson, 2011); this points to stress and its relationship to health management as an important avenue for further exploration.

Lack of health literacy resources was a second factor that hindered women's ability to engage in effective stroke prevention strategies. Health literacy, defined as the ability to both access and use in meaningful ways information relevant to health, can be limited for immigrant women who possess minimal French or English fluency (Rootman & Gordon-El-Bihbey, 2008). Women reported not having adequate knowledge to address modifiable stroke risk factors such as physical activity, smoking, and diet; factors that account for high percentages of risk across all ethnic and age groups (O'Donnell et al., 2016). All the women reported regular visits to family physicians and access to specialist medical care. Frequent contact did not always address knowledge deficits, help manage disease symptoms, or support lifestyle adjustments for better health. Women, also, used Arabic social media, online, and print health literacy material that sometimes was inaccurate or irrelevant to their specific health needs. Women described poor

diabetes and blood pressure control, unmanaged chronic pain, emotional and mental distress, lack of knowledge regarding prescribed medication, and unfamiliarity with signs and symptoms of stroke. Women reported difficulty learning English and continuing their education due to competing demands of adjustment to a new country; this resulted in ongoing language barriers as they aged in Canada. It can be argued that supporting immigrants gain English language skills early in resettlement has significant health implications for later life.

A third significant influence on engaging in stroke prevention strategies related to women's financial resources. Women with low levels of education and who had not entered the workforce were more likely to describe financial instability as they aged in Canada. This mirrors the literature where being an immigrant and a woman increase the risk for economic uncertainty in older age (Kofman & Raghuram, 2005; Vlachantoni, 2012). In Canada, immigrant visible minority women, even when highly educated, continue to be underemployed or undercompensated in comparison to other Canadians (Hudon & Milan, 2016). Such economic realities influence women's ability to manage health effectively as they age in the Canadian context. Women discussed the high costs of purchasing medication even with partial supplementary health insurance coverage. Public insurance coverage can exclude certain medication, resulting in Canadians often paying out-of-pocket to cover costs (Hennessy et al., 2016). Overall, women's economic status, access to transportation, language fluency, life stressors, and personal coping strategies influenced their ability to engage effectively in stroke prevention practices.

### **Limitation and Implication**

This study focuses on a group of Arab immigrant women in a single urban center in Canada and, hence, transferability of findings is tied to women's socio-demographic profile and migration histories. A strength of the study is that data collection and analysis were completed in Arabic by a bilingual researcher familiar with linguistic and cultural nuances that influence recruitment, data collection, and interpretation of findings. The study highlights some of the influences on health as experienced by Arab immigrant women. Shifting discourses on immigrant health away from a focus on culture that stresses narratives of personal behaviors and group cultural norms to a focus on the intersecting influences of multiple social positions can better inform approaches to stroke prevention in immigrant populations. In Canada, Arab immigrant women were shown to have poorer self-ratings of overall health in comparison to other visible and non-visible minority women (Hudon & Milan, 2016). Looking at the connections between life stressors and perceived well-being might provide insight into such a finding. There is a need to identify strategies that increase Arab immigrant women's participation in stroke prevention activities and that empower women with tools for health management. This study points to stress management and faith-based approaches as possible tools for engaging Arab immigrant women in health promotion. It would be valuable to build on these findings and the literature (Barenfeld, Gustafsson, Wallin, & Dahlin-Ivanoff, 2015; Campbell et al., 2007) that support a multi-focus approach to health promotion initiatives by targeting simultaneously the physical, spiritual, and mental health of immigrants. At the policy level, there continues to be a need for education and employment supports targeting immigrant women early in the re-settlement phase such as affordable childcare and transportation.

## **Conclusion**

The study is the first, to our knowledge, to look at Arab immigrant women's experiences with stroke prevention in Canada. Understanding stroke risk, prevention, and management strategies is increasingly relevant as the number of Arab immigrants to Canada continues to rise and the risk of noncommunicable diseases, also, increases in this population. Women in this study, experienced barriers to exercising personal agency as a result of life stressors, lack of health literacy, and financial strains. Women were more adept at navigating these barriers with the presence of strong personal faith, a good command of the English language, and increased mobility by being able to drive. Overall, this study points to some possible avenues for future intervention to support Arab immigrant women in maintaining health.

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