

Exploring the Food Choices of Muslim Arab Immigrants in Canada

by

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AUTHOR'S DECLARATION

“I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Objectives: This study aimed to investigate Arab Muslim immigrants' lived experiences in Canada and perceptions around food choice, including whether participants maintained their traditional diet or incorporated more Western foods.

Method: This study utilized the phenomenological methodology with a sample of Arab Muslim mothers who immigrated to Canada 5 years or more ago who currently have school-age children and reside in the metropolitan areas of Kitchener-Cambridge-Waterloo and Mississauga, both of which are located in Southern Ontario, Canada. Data were collected in Arabic by semi-structured individual interviews, focusing on food availability, meal preparation and food choices in Canada. Data were translated into English and coded to facilitate analysis by NVivo11 Qualitative Analysis Software. Member checking was used in order to meet the criteria of credibility. To facilitate transferability, thick descriptions were written so that it will be possible for others to gain a clear understanding of the determined themes. A sample (2) of the 24 interviews were entered into NVivo by a second qualitative researcher as well as the original researcher, in order to check for accuracy and completeness, and the two transcripts were then compared. An adapted version of the Male Arab-American Acculturation Scale (MAAS) was also used to assess participants' attitudes towards acculturation, and information was also collected on key socioeconomic variables of the household.

Results: Participants reported that traditional foods were available at supermarkets, but they expressed concerns over the cost of food and the general lack of flavour and freshness. Some participants reported adjustment of the positive and negative healthy food behavior such as less frying of food; more reading of food nutrition facts and labels. Other participants reported that unhealthy food behavior increased, such as consuming easily prepared meals due to the lack of time; going to restaurants more often and consuming Western food due to children's preferences to consume food in Western style. The Male Arab-American Acculturation Scale (MAAS) indicated no relation between the adaptation

of food behavior or the retention of preparation of traditional food and the degree of acculturation after immigration among Arab Muslims participants. However, there were interesting associations of other socioeconomic variables (such as mother's work status, length of time in Canada) with food behavior. Since the sample was relatively small and restricted to urban areas in Southern Ontario, the findings are specific to a particular demographic group. However, similar patterns have been observed for Arab immigrants in the United States, and some of the findings are consistent with those for other immigrant groups to Canada.

Conclusions: Arab Muslim immigrants to Canada tend to try to balance the maintenance of their traditional dietary habits with being open to Western foods. However, some individuals resist the Western influence more than others. There were varying levels of adherence to religious dietary observances. Other variables could also impact food choices, such as family income, children's age, level of education of the parents and parents' work. The acculturation survey (MAAS) results in this study, while intriguing, were inconsistent with the extant literature. Overall, it is evident that the phenomenon of dietary acculturation for Arab Muslim Immigrants to Canada involved an experience of trying to find a balance between carrying forward food-related traditions and trying to adapt and fit into Canadian culture, including Canada's food culture.

Implications: Policy makers and international community focusing on immigration and dietitians as well should consider how they can help Arab Muslim immigrants to combine the healthiest aspects of their traditional diets with the healthier foods available in the West, to help them avoid diet-related health issues such as obesity and diabetes, which could help to reduce healthcare costs and improve health. Efforts such as these could help Arab Muslim immigrants to feel better supported in their new environments. By making Arab Muslims feel more welcomed and at home, this could subsequently improve social cohesion between new immigrants and long-term citizens as well.

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This thesis would not have been possible completed without the contribution of many people. My interest in this study was inspired by my advisor at the University of Waterloo, Dr. Sue Horton, who suggested that I investigate this type of topic. I would like to thank Dr. Sue Horton for her continuous encouragement, guidance and support. Without her help and support I wouldn't have been able to get through the research. Her feedback and advice provided during the four years have allowed me to become a better researcher and writer. My interest grew after I did the scoping review for my comprehensive examination, which was about acculturation among Arabs who migrated to Canada. I found that immigrant groups represent a growing population in Canadian society, but there is relatively little research on these minority populations, and especially Arab Muslims. Considering my background as a nutritionist and mother of two boys living in Canada with my husband I decided to focus my primary research on the food choices of Arab Muslims like me. As a Muslim woman who wears Al-Hijab, it could be easier for me to directly contact other Muslim women, which could help to facilitate this research. In addition, I felt that Muslim women would feel comfortable speaking with me especially if we are both Arab, speak the same language (Arabic), and share the experience of raising children in a country that is relatively new to us. Thus, I feel that I have a background that makes the study of food choices among Arab Muslim immigrants to Canada suitable to me.

Also, I would like to thank my thesis committee, Dr. Rhona Hanning and Dr. Laurie Hoffman-Goetz for their contributions to my studies. Thank you for sharing your time and knowledge.

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Chapter 1

Introduction

This chapter sets out the framework for a qualitative study that explored how migration might affect the food choices of Muslim Arab immigrants who currently reside in the metropolitan areas of Kitchener-Cambridge-Waterloo and Mississauga, both of which are located in Southern Ontario, Canada. Specifically, I want to examine how mothers who immigrated to Canada 5 years or more ago feed family and their school-age children as well investigate their experiences of adapting to Canada's different culture in terms of their food choices.

Food is a major aspect of Arab culture, as is the case with many other cultures as well. Notably, Arab immigrants face both symbolic and practical barriers to the maintenance of their cultural practices once they move to a new country. At the symbolic level, immigrants moving to a new country may seek to integrate culturally and use food/diet as a strategy of assimilation/acculturation/integration. In addition to this symbolic cultural immersion, there may also be practical influences on the immigrants' food/diet. For example, some foods/spices may not be available in the new country; hence, it becomes necessary for immigrants to adopt new practices. Also, religion is another factor that influenced some immigrant's choices, as they continue practicing their beliefs in their daily lives through aspects such as Islamic clothes, Islamic education, Islamic gatherings/festivals, traditional food and consuming only halal food. As Fadzlillah et al. (2011) have explained, Islamic law only permits certain food sources, considering that dietary intake can affect well-being and behaviour. Bharmal et al. (2018) found a connection to exist

between religious affiliation and overweight among South Asian immigrants, including Hindus, Sikhs and Muslims, due to cultural beliefs, which affected their food consumption of sweet and grain products and lower physical activity levels.

Furthermore, when it comes to parents/first-generation immigrants, the choice between local culture and new culture is often clear. However, children who were either born in the new country or raised in the new country from a very young age are often torn between their parents' country and the new country. The children are expected to integrate (and they often do) but their parents may also want them to preserve their cultural identity. One way to preserve cultural identity may be to continue consuming the traditional foods of one's original culture.

Canada has always been a nation of immigrants ("Canadian Council on Social Development", n.d.). Prior to the late 1960s, the majority of the immigrants to Canada came from European countries (Massey et al., 1993). Since then, Canadian immigration has been driven by arrivals from developing countries in Africa, Asia, Latin America and the Caribbean, and the Middle East (Massey et al., 1993). People decide to immigrate for various reasons, including the desire for greater economic opportunities, to escape political instability, and to reunite with their family members. One recent study suggested that most immigrants to Canada immigrate for economic reasons, although more women than men immigrate as the spouses of those immigrating for economic reasons, or because they have family residing in Canada (Chui, 2003). Immigration not only has a major impact on the countries that are accepting immigrants, it also has an influence on the immigrants themselves. The acculturation processes that arise from this contact have been defined as the "phenomena which result when groups of individuals having different cultures come

into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936, p. 149). Theories about acculturation have, therefore, examined the process at both individual and group levels, in relation to such factors as changes in behaviour, attitudes and values (e.g., Graves, 1967; Padilla, 1980; Kim & Abreu, 2001).

One aspect of behavioural change that may occur as part of the process of acculturation involves a shift away from immigrants’ traditional food-related values and behaviours to those of the host country (Mavreas et al. 1989). The more different an individual’s original culture is from the host country’s culture, the more challenging it will be for that individuals to acculturate (Satia-Abouta, 2003). However, when immigrants are better educated and skilled, as well as coming from urban areas, there is less risk that they will be culturally isolated when they immigrate to a developed host country (Satia-Abouta, 2003). Nonetheless, those who immigrate to ethnic areas of the host country, such as Chinatowns, or who are compelled to immigrate, such as refugees, will face greater challenges as they attempt to acculturate (Satia-Abouta, 2003).

As with the process of Arab acculturation more generally, there have been few efforts to understand the food choices of Arab immigrants or even Muslims as a specific group within the Canadian population (Abou El Hassan & Hekmat, 2012). This stands in marked contrast to the research conducted on the food choices of other immigrant groups in Canada, including immigrant groups from Asia and Africa. As Eid (2007) has noted, the lack of literature on Arab Canadians is inconsistent with the group’s significant size within the larger Canadian population. The reason for this lack of research on Arab Canadians is not clear, but it is hoped that, in the future, this issue will be resolved as more studies are

conducted focusing on this particular group. This is likely, considering that databases from Statistics Canada and the Canadian Arab Institute suggest that there has been a recent dramatic increase in the number of Arabs immigrating to Canada. In Chapter 2 of this proposal, the limited relevant research on Arab Canadians, as well as research on other immigrant groups in Canada, is discussed.

1.1 Statement of the Problem

Rasmi and colleagues (2012) report that “historically, Arab culture and its people have been underrepresented in the social sciences literature, leaving a gap in our understanding of the similarities and differences between Arab and other cultures” (p.84). Therefore, only a limited foundation exists on which to compare similarities and differences between the Arab culture and other cultures. Multiple reasons exist for the lack of attention to Arab-Canadian immigration and acculturation. However, in the early twenty-first century the rate of Arab immigration into Canada, as well as into other Western countries, indicated that immigration has significantly increased (Rasmi et al., 2012). Even so, there has been little research on the Arab population in Canada or the effects of acculturation or consideration of integration, assimilation, separation, marginalization or their settlement in Canada or elsewhere. Rasmi and colleagues (2012) note that studying the acculturation of the Arab population has become an important priority for countries such as Canada with relatively large Arab immigrant populations. This research can help to identify differences and similarities between Arab and Canadian cultures, which in turn can help to inform efforts to help Arab immigrants become integrated into their new culture.

In light of the growing Arab population worldwide and in Canada, research need to investigate various aspects of their lives, such as challenges faced after immigration, and the ways in which Arab immigrants have adapted to the new environment. This is especially so after the attack of 9/11 and the issue of discrimination that they are more likely to face in their daily life (discussed in detail in chapter 2). However, acculturation is complex to understand because individuals experience different levels of acculturation.

With these gaps in the research in mind, the proposed PhD research will help to improve our understanding of food choices among Muslim Arab immigrants to Canada. Specifically, this qualitative research examines the food choices of Muslim from the Arab world who have immigrated to Waterloo, Kitchener, Cambridge and Mississauga, Ontario, Canada. It will add to the literature on Arab, and in particular Muslim Arab immigrants, who are a growing community in Canada, and will shed light on the dietary practices of recent immigrants, which may help provide a more universal picture of immigrants' nutrition in Canada. This is one important component of understanding immigrants' experiences of making food choices in Canada. We also examine how factors which affect the immersion in the new culture, such as length of stay in Canada, occupation, and age of children, affect food choices.

Chapter 2

Literature review

2.1 Immigration in the Global and Canadian Contexts

The food choices of Arab Muslim immigrants are an issue of concern, as they represent a growing demographic within Canada. A 2012 survey by Gallup conducted in 151 countries between 2009 and 2011 found that, if they were able to, 640 million adults would migrate to another country, with the vast majority choosing developed Western nations such as the United States, the United Kingdom and Canada as their preferred destination (Clifton, 2012). The adults who desire to migrate are mainly looking for better opportunities, in terms of coming together with family members who have previously moved to a preferred country, for business opportunities, for greater freedom, or to provide a better life for their children (Clifton, 2012).

Canada has historically experienced high levels of immigration and was one of the first countries to move towards a policy of official multiculturalism, which is founded on the principles of social and racial equality and acceptance of religious and cultural differences. Hundreds of thousands of immigrants move to Canada each year and the major reason for their acceptance is that Canada traditionally relies on immigrants to fill shortages in its labour force. This is why most immigrants who move to Canada are here for economic reasons (as mentioned above). These immigrants play a significant role in Canada's growing population, which increased by 4% between 1996 and 2001 (Statistics Canada, 2002), and by 5.4% between 2001 and 2006 (Statistics Canada, 2006). Immigrants are defined as those born outside the country but who are now either permanent residents or citizens of Canada.

The Canadian government makes a distinction between permanent residents and citizens; permanent residents are people who have immigrated to Canada but who remain citizens of another country, whereas a citizen has citizenship in a particular country (“Understand permanent resident status,” 2015; Statistics Canada 2015). As Statistics Canada (2015) has explained, “Citizenship refers to the country where the person has citizenship. A person may have more than one citizenship. A person may be stateless, that is, they may have no citizenship. Citizenship can be by birth or naturalization.” According to Citizenship and Immigration Canada, in 2010 Arab immigration to Canada reached an all-time high, with the arrival of 34,657 citizens from Arab countries (CAI, 2013). Permanent residents of Canada enjoy most of the benefits of citizenship, including access to health care and social services, but they are unable to vote, run for office, or hold certain jobs that require high-level security clearance (“Understand permanent resident status,” 2015). In addition, there are different classes under which people migrate to Canada: economic class (the dominant class), family class (with considerably fewer people), and refugees (who come as a result of conflict/wars).

2.2 Muslim Immigration to Canada

The 2006 census did not include data concerning religious denomination, Muslim immigrants to Canada numbered 940,000 in 2010, making up 2.8% of the country’s population (Pew Research Centre, 2011). The population is still growing, mainly due to immigration, and it is expected that by 2030, there will be about 2.7 million Muslims in Canada, making up about 6.6% of the country’s population (Pew Research Centre, 2011). There is evidence that anti-Islamic activity in Canadian society is occurring similarly to other countries where populations are afraid of Islamic terrorism. Statistics Canada states

that, in 2013, 28% of hate crimes targeted particular religious groups. In terms of religiously motivated hate crimes, after the Jewish population, Muslims faced the largest number of these crimes. In fact, Muslims experienced 5.6% of all hate crimes. A total of 33% of these crimes against Muslims were violent, and 47% specifically affected Muslim women (Statistics Canada, 2015). The majority of hate crimes (50.1%) targeted people based on their ethnicity, and crimes that affected Arabs and West Asians count as an additional 4.1% of hate crimes. As a direct consequence of the events of September 11th, 2001, Canada's immigration policy was made significantly tighter, including through the *Immigration and Refugee Protection Act* (IRPA) passed in 2002 (Troper, 2013). This act specifically limited the number of less-wealthy individuals who could immigrate, as well as requiring better qualifications and different employment requirements from immigrants, displaying a preference for workers with multiple skills who might be able to better contribute to the labour market (Troper, 2013).

Nevertheless, considering reputable immigration projections, it does not appear that the overall number of Muslims immigrating to Canada will decrease as a result of ongoing Islamist terrorism and increased security concerns. Moreover, the Government of Canada enacted a policy to resettle 25,000 Syrian refugees, many of whom are Muslim, by the beginning of 2016 ("Syrian Refugee Crisis," 2015).

2.2.1 Arab Immigration to Canada

Paterson and Hakim-Larson (2012) mentioned in their study that they used a definition of "Arab" adapted from previous research, whereby the term referred "to people for whom Arabic is their first language and who have come to Canada from the Arab Middle East and North Africa," and these regions encompass "Lebanon, Syria, Jordan,

Palestinian, Saudi Arabia, the United Arab Emirates, Bahrain, Kuwait, Oman, Qatar, Yemen, Iraq, Egypt, Sudan, Somalia, Libya, Tunisia, Algeria, Morocco, Mauritania, Bahrain, and Djibouti” (p. 209). According to Abu-Laban (1980), although Arabs are predominantly Muslim, the term Arab refers to the person’s origin, regardless of religious affiliation. This study, however, will be concerned specifically with Arabs who identify as Muslim and who are first-generation immigrants, meaning immigrants who were born outside Canada.

Following a similar trend as Muslim immigration to Canada, Arab immigration to Canada began to rise significantly beginning in the 1990s (CAI, 2013). According to the 2006 census, of those who identified themselves as Arab, 44% were Muslims, 28% were Catholic, 11% were Christian Orthodox; 5% were Protestant; and 6% had no religious affiliation (CAI, 2013). More recent data indicates that this trend towards Arab immigration is accelerating. According to data that the Canadian Arab Institute (CAI) (2013) “in 2010 Arab immigration to Canada reached an all-time high, with the arrival of 34,657 citizens of Arab countries.” At this time, “Arab immigrants represented 12.4% of the total immigration to Canada, second only to the Philippines (13.0%) and, for the first time, ahead of China and India (at 10.8% each), long the top two source countries of immigrants to Canada” (CAI, 2013).

Currently, high levels of poverty and political instability plague the Middle East and North Africa (International Monetary Fund, 2014). While Arab-speaking regions had been enjoying some success at reducing poverty and unemployment, recent figures indicate that this promising trend has started to reverse, with the poverty rate increasing from 21.6 percent in 2008/09 to 26.3 percent in 2012/13 (IMF, 2014). Research by the CAI (2013)

indicates that, in many cases, the desire to flee conflicts spurs on immigration to Canada. For example, between 1990 and 1993 there was a large influx of people from Lebanon and Somalia, which were both in a state of conflict during that time. The number of Arab immigrants peaked again during the late 2000s, as rising numbers of individuals from Egypt, Morocco, Algeria and Iraq relocated to Canada (CAI, 2013), which coincided with conflicts in those same countries. For individuals seeking better economic opportunities and greater security, Canada represents an attractive option.

2.2.2 The Immigrant Experience and Food Choice

The findings of Canadian-centered research suggest that when immigrants first arrive in Canada they are less likely to be overweight or obese as compared to their native-born counterparts (McDonald & Kennedy, 2005; Olvera et al., 2005). However, after a period of time, the immigrants begin to show a prevalence of overweight or obesity that is comparable to that of their Canadian-born counterparts, suggesting that dietary changes and changes to their physical activity level are influencing their weight status (McDonald & Kennedy, 2005). Immigrants' health is a complex matter, and it is becoming increasingly complex in the Canadian context, as immigrants come from a more diverse array of countries and cultures. Notably, a variety of factors affect individuals' food choices. Physiological factors include the unique genetic predispositions and personality traits of individuals, as well as the food-related learning opportunities that they are exposed to during their lives, societal influences, and the influence of both micro and macro contexts, including their cultural environment (Rozin, 2006).

People's food choices are a complex topic that has been studied in a number of academic fields across the natural and social sciences. In her sociological examination of

food choice, Murcott (1998) notes that food choice has several meanings, which involve a number of factors including the act of choosing itself, the available choices from which one can choose, and the alternatives. Buttriss et al. (2004) defined food choice as: “the selection of foods for consumption, which results from the competing, reinforcing and interacting influences of a variety of factors. These range from the sensory, physiological and psychological responses of individual consumers to the interactions between social, environmental and economic influences, and include the variety of foods available and the activities of the food industry to promote them” (p. 7). In Murcott’s (1998) discussion of food choice, she emphasizes that it is also a multifaceted phenomenon that involves considering what, how, when, where and with whom people eat. She argues that food choice plays “an important role in the symbolic, economic, and social aspects of life by expressing preferences, identities and cultural meanings” (p.1). Given the social, cultural, and economic implications of food choice, examining the food choices of immigrant families can potentially reveal a great deal about how they are adapting to life in their adopted country.

2.3 Acculturation

Given the significance of migration in human social and cultural experience, it is not surprising that the acculturation process has been extensively examined in terms of how both individuals and groups respond to their new cultural environment (Padilla & Perez, 2003). Most theoretical models of acculturation focus on describing the acculturation process by examining how individuals respond to their new cultural environment (Padilla & Perez, 2003). While there are a wide variety of models used to measure acculturation, most fall into one of three broad categories: unidimensional, bidimensional, or

multidimensional (Thompson & Hoffman-Goetz, 2009). Unidimensional models of acculturation only describe acculturation in terms of losses in one's heritage culture and corresponding gains in the new culture (Abdulahad et al., 2009). Bidimensional models, on the other hand, assess changes in the heritage culture and the new culture and provide two scales, one for each culture. Multidimensional models assess the acculturation across multiple dimensions individually, to provide a more comprehensive understanding of acculturation (Thompson & Hoffman-Goetz, 2009). Other models of acculturation, most notably the segmented model proposed by Portes (Portes & Zhou, 1995; Portes et al., 2005; Portes & Rumbaut, 2001; Portes & Min, 1993), view acculturation across generations and take into account the way in which the host culture's response to an immigrant group informs the acculturative experiences of individuals.

While all of the above acculturation models are relevant to the understanding experiences of immigrants, John Berry's (1997; 2003) cross-cultural model of acculturation is particularly relevant to this study as its objective is to understand the psychological changes that first-generation immigrant parents (mothers) undergo as they enter a new cultural context. Central to Berry's theory of acculturation is the argument that immigrants can have either positive or negative feelings towards their culture of origin and their new culture. These attitudes can be expressed through various behaviours, such as language use, style of dress, and food preferences. In addition, Berry's view of acculturation offers valuable insight into the psychosocial changes individuals may experience as they enter a new culture; this theory of acculturation can help researchers gain a better understanding of the experience of immigrants in North America. Other scholars (e.g. Gordon, 1971) have proposed that the first experience most immigrants share

after arriving in a new country is cultural-behavioural assimilation, such as occurs when immigrants acquire English language skills or develop behavioural patterns that are typical of the host country's society.

2.3.1 Dietary Acculturation

Dietary acculturation is defined as “the process by which immigrants adopt the dietary practices of the host country” (Staia et al., 2002a, p.1106). As research has demonstrated, the immigration experience often has a negative impact on the diet of new arrivals. In fact, numerous studies have demonstrated a relationship between immigrant's health and poor food choices (Satia-Abouta et al., 2002b; Kwok et al., 2009; Varghese & Moore, 2002; Lee, 2001; Misra & Ganda, 2007; Landman & Cruickshank, 2001). One review of the literature on how dietary acculturation affects the health of Latinos living in the United States specifically indicated that the effects of acculturation could be both positive and negative (Lara et al., 2005). While more acculturated Latinos had less healthy behaviours and nutritional intakes, they also experienced improved access to health services and perceived themselves as being less affected by poor health (Lara et al., 2005).

According to Satia-Abouta (2003), various studies (Berry, 1980; Satia et al., 2001; Satia et al., 2000; Bermudez et al., 2000) have demonstrated that acculturation depends on greater exposure to a host country's popular culture. This exposure is in turn facilitated by residing in the host country for a longer period of time, having a high level of education and income, being employed outside of one's residence, being married, being a parent to young children, and being more fluent in the dominant language. However, as part of acculturation, being exposed to the host country's culture could result in dietary changes, depending on how traditional dietary patterns are valued, as well as changes in knowledge,

attitudes and beliefs related to diseases, (Satia-Abouta, 2003, p. 75). Also, Satia et al. (2000) found that immigration leads to exposure to a different supply of food, which can affect how individuals procure and prepare food, especially when traditional foods or ingredients are not available. This, in turn, may lead immigrants to consume more of the foods that are common to the host country which is one component of dietary acculturation. If traditional foods are available but are expensive and take a long time to make, then immigrants may be attracted to the more convenient options of prepackaged meals and fast food (Satia et al., 2000). In some cases, there is a negative impact of retaining traditional foods as Bharmal et al. (2018) found that South Asian immigrants who had a lower level of English in the United States, continued to use sweets and grains in their food, with negative health implications. Another study showed that Arab mother immigrants in the United States had positive and negative dietary adaptation of food behavior, including increased consumption of fast food, meat, convenience foods and lack of physical activity due to children's preferences, time limitations and the price of food (Tami et al., 2012).

Although the adoption of a Western diet has been investigated as a possible aspect of dietary acculturation among immigrant populations, the resistance or reluctance to adopt a Western diet has also been investigated. Among Chinese and Indian female immigrants living in Canada. It has been found that they are hesitant to prepare Western-style foods specifically due to a lack of knowledge of the nutrition-related information that the Canadian government supplies, as well as a lack of familiarity with Canada-specific options in terms of Western foods and Canadian food preparation methods (Satia-Abouta et al., 2002a; Kwok et al., 2009; Varghese & Moore 2002). Thus, it is important that

immigrants be informed of how best to adapt to the different food styles from various cultures as well as Western-style food options that are available in the Canadian context.

2.3.2 Acculturation and Muslims' Specific Concern: Challenges for Muslim

Immigrants in the Post-9/11 Context

The anti-Islamic wave that hit after the September 11th, 2001 incident has caused continuous stress and issues in Muslim communities around the world (Critelli, 2008). This has resulted in many Arab immigrants feeling fear and anxiety concerning their treatment in a host country (Rosin, 2001). Furthermore, as noted especially among Muslims in Western countries, the increase in anti-Muslim discrimination has been found to result in stress among Muslims, as well as an increase in depression and perceived prejudice (Rahman & Rollock, 2004).

Britto (2008) also noted in her study that, following the terrorist attacks of September 11th, 2001, Arabs could face a sociocultural environment that does not support, or is even hostile towards them, which could have a negative impact on the development of their identity as well as their ability to adapt to their host country. This could result, in part, in the public simply associating terrorism with Islam and feeling that all Muslims or Arabs are basically the same (Bushfield & Fitzpatrick, 2010). Despite the 9/11 attacks on the United States, CAI data for immigration between 1960 and 2011 shows that over half of the Arabs who have immigrated to Canada did so between 2000 and 2011, while over 75% of Canada's Arab immigrant population arrived between 1991 and 2011 (CAI, 2013). Thus, it is evident that the Arab community is steadily growing in Canada, with more

growth occurring in recent decades. Overall, such factors could cause Muslim immigrants to Canada to withdraw from the acculturation process, which could result in members of this group not becoming fully integrated into mainstream Canadian society. However, in 2017, the President of the United States, Donald Trump, denied people from seven Muslim Countries the ability to enter United States, in contrast with Canada, which has continued welcoming immigrants and refugees from those seven Muslim countries and other countries. This new law by Trump might cause difficulty in terms of acculturation and integration to the United States society and increase the violence against Muslims who are living there.

2.4 Factors That Might Influence Food Choices

2.4.1 Nutrition transition

Exposure to the Western diet and dining out in fast-food restraints can be related to nutrition transition within the home country prior to migration. Satia (2010) explained that the nutrition transition occurred due to two factors: globalization (food factory) and urbanization (individual factors related to moving from countryside to urban or income). As urbanization becomes increasingly prevalent and wealth increases, even in the countries of origin the traditional foods commonly consumed on a daily basis may become a smaller or negligible part of individuals' diets, while consumption of festival foods may similarly increase (Azar et al., 2013). Indeed, Mehio et al. (2011) showed that a shift away from traditional food is also occurring in Arab countries among Arab residents. This is associated with an increase in chronic diseases as a result of increased consumption of

convenience and processed foods that are rich in fat and salt. Also, the research showed increased consumption of fats and protein from animals as well as decreased consumption of carbohydrates, such as whole grain products, and fresh fruits and vegetables (Mehio et al., 2011). This evidence indicates unhealthy food adaptation may be occurring within Arab countries.

Furthermore, the nutrition transition affects the diets of immigrants and, in turn, their degree of risk for various health problems. This has been demonstrated by a study that explored how Haitian immigrants in Montreal increased their consumption of foods high in fat, dietary cholesterol, sugars and refined cereals, whereas they decreased their intake of dietary fiber and polyunsaturated fat. These changes match the typical Western dietary patterns and place the immigrants at increased risk of developing diet-related chronic diseases due to various socioeconomic, dietary and lifestyle variables (Desilets et al., 2006). Not all immigrants face the same experience, but it varies by level of income and urbanization in the country of origin.

Aboul-Enein et al. (2016), in their integrative review of “dietary transition” and obesity within Arab countries, which included the Middle East and North Africa, found nineteen studies showing a move from traditional food to Western food, while twenty other studies showed a change from eating traditional food but not to consuming Western food. Some of the trends accompanying migration, were also trends observed in the countries of origin. We might expect that dietary acculturation is different for immigrants coming from high income countries such as those in the Middle East where the dietary transition is already far advanced, than from migrants from low-income countries.

2.4.2 Length of residency

Research has demonstrated that different ethnic groups often have very different dietary habits, and upon immigration changes occur over time whereby immigrants move away from their traditional diet as they gradually adopt a more mixed diet that includes aspects of their traditional diet as well as the more Westernized diet or other cultures' diets. For example, immigrants in Canada are more likely to be exposed to other cuisines such as Indian, Chinese, Mexican, Greek, Korean, Italian.... etc. as Canada is known as a diverse and multicultural country.

The Canadian diet itself is also evolving. According to 2015 data from the Canadian Community Health Survey (CCHS), Canadians consume more calories from protein and fat and less calories from carbohydrates as compared to the 2004 survey (Statistics Canada, 2017). Also, the survey showed a decrease in the share of calories from carbohydrates consumed daily, from 54.6% in 2004 to 53.4% in 2015, among children and teenagers, as well as a decrease among adults from 49.1% to 47.7% (Statistic Canada, 2017). A Canadian survey about food perceptions and health indicated that a small number of Canadians define their health and diet as poor, while the majority view their health and diet as very adequate. Notably, many indicated that healthy food is expensive and processed food is rich in salt and sugar, and also does not contain enough vitamins and minerals (Schermel et al., 2014).

While much of the research on this topic tends to focus on how immigrants adopt Western-style diets as a part of the process of acculturation in a new, Western country, other researchers have also investigated how immigrants to the U.S. in particular also change in terms of how they approach their traditional diet (Azar et al., 2013). This research has found that among recent immigrants the foods that they would normally only eat during

certain festivals or holidays as part of their original culture become a more significant part of their diet after they immigrate (Azar et al., 2013). This is likely because eating these foods allows immigrants to retain a connection to their original culture through food. Rather than consuming these foods only at certain times, they wish to consume them more frequently, as they offer a sense of the original culture that the immigrants are trying to retain. However, this can have a negative impact on the healthfulness of dietary intakes as well as on weight status. Many of these festival foods tend to include high levels of fat, sugar and other refined carbohydrates, making them considerably less healthy than the traditional foods that would be eaten more commonly within a culture. By contrast, Lesser et al. (2014) found an association between the length of residency of South Asian immigrants in Canada and a positive adaptation to eating more healthy food, such as less frying and consuming more vegetables and fruits.

2.4.3 Impacts of Settlement and Migration

The adoption of a Western diet by immigrants to Western countries is a cause for concern not only in relation to weight status but also with regards to health outcomes more generally. In 2008, research was conducted among various ethnic groups in Europe to investigate the effect of dietary intakes on health outcomes (Gilbert & Khokhar, 2008). One key point that these researchers makes is that as ethnic groups become more acculturated and adopt a Western lifestyle to a greater degree, especially during the second and third immigrant generations, this becomes a major factor in predicting an increased risk of chronic disease (Gilbert & Khokhar, 2008). Another study examined how migration impacts various ethnic groups in terms of the prevalence of obesity and type 2 diabetes mellitus among these groups. Data drawn from a number of studies demonstrated that as

migrants, including Blacks, Hispanics, Chinese, South Asians and others became wealthier and increasingly urbanized, they also showed an increased risk of developing obesity and type 2 diabetes mellitus. Especially notable was the increased risk for type 2 diabetes mellitus among South Asians (which was four times greater than it was for native rural populations). Some of the determinants of increased risk included physical inactivity, dietary changes and gene-environment interactions as a result of the adoption of Westernized dietary habits (Misra & Ganda, 2007). Moreover, there is a possibility that immigrants may be at increased risk of diet-related health problems relative to their native-born peers.

2.4.4 The Influence of Income Status on the Dietary Intakes of Immigrants

A number of studies have considered the impact of income level on the dietary practices of immigrants. Low income is a factor that can influence the dietary intakes of immigrants. A troubling finding is that the percentage of immigrants living below the low-income cut-off, which indicates poverty, was triple that of native-born Canadians between 1991 and 2001 (Grant & Sweetman, 2004). Furthermore, when the economy declines it affects immigrants as well as native-born Canadians, including immigrants with considerable skills. Generally, immigrants with a high degree of education do not fare as well economically as their native-born counterparts (Grant & Sweetman, 2004). These patterns have changed somewhat since 2001, The *Immigration and Refugee Protection Act* launched a new entry program in 2002 for accepting immigration applications based on skills and this change in the entire program may have helped to decrease the proportion of immigrants in low income after 2000s (Statistic Canada, 2015)

As socioeconomic status often dictates the kinds of foods that are accessible to

individuals, the relatively low socioeconomic status of immigrants may suggest that these individuals and their children will find it more difficult to consume a healthy diet that will help to protect them from developing overweight and obesity among other health-related problems. Also, a scoping review of acculturation and nutritional health of immigrants in Canada summarized and showed the links among socioeconomic factors and food insecurity or change in dietary habits to risk of chronic disease or associated risk factors (Sanou et al., 2014).

Notably, the Canadian Community Health Survey (CCHS) showed that 2.19 million people age 12 years and older were living in food-insecure households in Canada between 2011 and 2012. The rates were 8.4% of those born in Canada, 10.9% of new comer immigrants, and 7.6% of non-recent immigrants and other groups living in Canada (Statistics Canada, 2017). The 10.9% of newcomer living in food insecure might be reported due to the *Immigration and Refugee Protection Act* which launched a new entry program in 2002 for accepting immigration applications based on skills which permitted individuals holding a higher education degree to be eligible to apply for immigration. However, Canada does not allow immigrants to work with their original degree without certification/degree qualification based on the Canadian sytem. This may explain why recent immigrants have low income. Tarasuk et al. (2016) indicated that food insecurity due to low income is a major public health problem which cost health care system in Canada. The highest rates of household insecurity were found in the New Brunswick cities of Moncton and Saint John and in Peterborough, Ontario, all topping 16%. Quebec City had the lowest rates of food insecurity with only 7% of households affected (Tarasuk et al., 2016). It is important to note that different ethnic groups within the larger classification of

immigrants have been shown to have significantly different dietary intakes in terms of their quality and nutrient content. Some of these differences may be accounted for by differences in socioeconomic status between different ethnic groups, as well as different cultural preferences for particular foods and food preparation methods (Nicklas et al., 1995). This is because foods that tend to be relatively energy-dense, such as convenience foods like sweets and high-fat snack and fast food options, tend to be considerably less expensive as compared to fruits and vegetables and other healthier food options (Dennison et al., 2001; Green et al., 2003).

In Canada, Public Health routinely monitors the cost of the basic diet which called The Nutrition Food Basket (NFB). The basket contains a variety of food selections that meet each individual's dietary requirements depending on their age and gender. This data allows a better understanding of poverty and vulnerability. For example, the Nutritious Food Basket (NFB) for Waterloo region on 2016 showed that in the case of a family of four at median Ontario income, 12 percent of the monthly income would be spent on nutritious food, but if the same family had an income from Ontario Works, then they would need to spend 39 percent of their monthly income in order to be able to purchase the same healthy food. In the case of families surviving on even lower incomes, they would likely find it challenging or perhaps impossible to afford a suitable amount of nutritious food and other necessary items.

Considering the influence of low income on the dietary intakes among immigrants, a study conducted in Montreal, Quebec, Canada included 6392 children between 9 and 12 years of age who were from one of four family-origin groups of immigrants (from Europe, Asia, Central/South America, and Other, meaning countries outside of the first three areas,

such as Australia and numerous Middle Eastern countries), found that children growing up in immigrant families may be especially at risk if they live in low-income, disadvantaged communities in which the prevalence of poor lifestyle habits, including poor diet and physical inactivity, is high (Maximova et al., 2011).

Research has been conducted in Canada to examine the relationship between particular sociodemographic factors and how households decide which foods to select for purchase and consumption. The data for this research was drawn from the 1996 Family Food Expenditure survey, which involved 10924 families. The researchers found that much of the variation in food purchasing patterns could be explained by the size of the household, its composition, income and level of education (Ricciuto et al., 2006). Thus, if immigrants tend to have lower income as compared to their native-born counterparts, they are likely to have their food purchasing decisions affected by their relatively low-income levels.

Education is another factor that might affect an immigrant's food behaviour. Notably, individuals immigrating to pursue higher education or arriving with higher education, may eat more healthily than those of similar income but lower educational attainment. Abou El Hassan & Hekmat, (2012) found that 13 out of the 24 or 54% of Arab immigrants living in Toronto surveyed who held bachelor's degree were more likely to eat healthy food after immigration. In general, it appears that differences in terms of income and education among various immigrant groups are likely a major influence on their food choices.

2.4.5 Family Food Choices

Food choices are affected throughout people's lives by various developmental and familial factors. Dietary habits are first developed during childhood by parents or caregiver,

which sets the foundation as these early dietary habits tend to endure into adolescence and adulthood (Birch et al., 2007; Scaglioni et al., 2011; Lien et al., 2001). As individuals mature, the formation of family units may affect food choices as negotiations are made with spouses (Bove et al., 2003; Brown & Miller, 2002) and food needs to be provided to children as well (Lupton, 2000).

Various familial and social factors influence children's dietary behaviours. Considerable research has suggested that these behaviours are functions of the social and physical environments that children inhabit (Story et al., 2002). The numerous factors that significantly affect the development of children's dietary behaviors include a preference for particular foods, their availability, portion size, cultural notions regarding food options and methods of preparation, parental beliefs and practices, the structure of mealtimes or a lack thereof, and parental feeding styles (Patrick & Nicklas, 2005). Among these various factors, a key one is what parents themselves prefer to eat, as children will largely learn to eat the same foods as their parents. Also, parents tend to stock the household's refrigerator and cupboards with foods that they like and eat (Birch et al., 2007; Scaglioni et al., 2011). The dietary patterns of parents will have a major impact on the development of their children's dietary patterns, considering that parents are generally the primary providers of food to their children. These patterns are a product of not only food availability and preferences, but an individual's self-efficacy regarding their ability to control their dietary behaviours. Considering the central role that parents (including immigrant parents) play in influencing the development of their children's dietary behaviours and preferences, it is understandable that a major factor in this regard is how parents impact the foods their children eat. A most recent study of food-related parenting practices and their association

with children's nutrition risk status, comparing mothers and fathers, found that mothers lowered their children's nutrition risk when they offered encouragement for them to eat a balanced diet with a lot of variety, but when mothers used food as a reward with their children, this behaviour was associated with greater nutrition risk. In the case of fathers, when they modelled healthy eating behaviours, this was associated with children having a lower nutrition risk, but when the fathers restricted eating for health reasons or pressured children to eat, this was associated with greater nutrition risk. Among mothers and fathers, behaviours involving food-related control, emotion regulation, monitoring, or weight-related restriction were not significantly associated with the nutrition risk of children (Watterworth et al., 2017).

A number of other factors are also at play with regards to the adoption of Western-style dietary behaviours among immigrants and their children. Research has demonstrated, for example, that migrating into sizable towns as well as cities may lead to immigrants having a greater degree of exposure to Western fast foods in particular (Gilbert & Khokhar, 2008). However, it is also noteworthy that when immigrants live in large towns and urban centers they are also more likely to have access to foods commonly consumed by people of their ethnicity as well as the raw ingredients used to make these foods. Urban areas and other areas with a relatively high population density tend to be the first places to have specialized ethnic stores (Gilbert & Khokhar, 2008).

One study conducted in the United States focused on acculturation in relation to diet and drew data from the Early Childhood Longitudinal Study Kindergarten Cohort (Van Hook & Baker, 2010). This study focused specifically on how children's level of acculturation had an impact on their risk of developing obesity, while it also investigated

if acculturation might protect these children from developing obesity. According to the study's findings, the male children of immigrant parents had higher weights and were the quickest to gain weight, as compared to all other groups of children included in the study. However, boys were found to gain weight less quickly when their parents were not proficient in the English language, expressing a lower degree of acculturation among these parents. These findings led the researchers to conclude that various aspects of acculturation have an influence on the weight status and weight gain of children, and that male children of immigrants may be more affected by acculturation as opposed to their female counterparts (Van Hook & Baker, 2010). In addition, in some immigrants' cultures, the role of extended family influences such as grandparents may be important. A review of the caregiving role of grandparents in ethnically diverse groups of African-American, Hispanic, and Asian-American families living in United State found that grandparents were frequently in charge of taking care of their grandchildren in areas such as diet, education, and daily care (Kataoka-Yahiro et al., 2004).

In the Canadian context, researchers have also focused on the role that immigrant mothers play in relation to the foods that their families consume, especially as this relates to the practice of sharing meals together as a family (Marquis & Shatenstein, 2005). The data for this study were drawn from children 10 to 12 years of age who lived in Montreal but were from either a Haitian, Portuguese or Vietnamese background. While immigrant mothers may choose certain foods based on convenience, they support the practice of sharing family meals without considering convenience to be an important factor in this regard. Rather, family meals were seen as important for health reasons and, among Vietnamese mothers, as providing an opportunity to feed the family familiar foods from

their culture (Marquis & Shatenstein, 2005). Overall, research has found there to be a fairly clear relationship between parents' behaviors in terms of dietary characteristics, food preferences, and dietary intake regulation (including dietary inhibition), and these same behaviours in their children (Birch et al., 2007; Scaglioni et al., 2011). This has considerable implications for immigrant families whose children may already be at an increased risk for developing overweight or obesity due to such factors as the move towards a more Western-style diet.

2.5 Studies on Arab Immigrants and Food Consumption

2.5.1 Islamic Food Law

Arabs' traditional food patterns, and especially those of Muslim Arabs, are affected by various factors, including ecological, economic, religious and cultural ones. These factors are different depending on the region from which the individual comes and their economic status. Halal is an Arabic word which mean something that is allowed for Muslims. "Halal Food means food permitted under the Islamic Law and should fulfil the following conditions: does not consist of or contain anything which is considered to be unlawful according to Islamic Law; has not been prepared, processed, transported or stored using any appliance or facility that was not free from anything unlawful according to Islamic Law; and has not in the course of, preparation processing, transportation or storage been in direct contact with any food that fails to satisfy" (EUROHALAL, 2018). As Fadzlillah et al. (2011) have explained, Islamic law only permits certain food sources, considering that dietary intake can affect well-being and behaviours. Thus, Haram food is prohibited by the Qur'an, Sunnah, and by Muslim jurists (Ijma'), whereby Muslims are not allowed to consume pork or its derivatives, as it is considered a sin to do so (Fadzlillah et

al., 2011). It is also prohibited for Muslims to use Haram ingredients in the foods they consume (Fadzlillah et al., 2011). According to Mathew et al. (2014), Haram food can be contrasted with Halal food, which is explicitly permitted by the Qur'an. Notably, some foods are not only Halal but are further emphasized in the Qur'an as being particularly valued, such as figs, olives, dates, honey, milk, seafood, and olive oil (Salarvand & Pournia, 2014). However, not only Muslims have dietary laws, as Jewish people also have food restrictions whereby they only eat "Kosher," which is not a particular cooking style. Rather, the important point in order for a food to be kosher is that it must be prepared according to the Jewish law. Thus, any food (Chinese, Western, etc.) can be kosher if it is prepared in this way.

2.5.2 Food Habits of Arab Immigrants

As mentioned above, Arab foods choices differ according to religious affiliation. Generally, some of the most common ingredients used in the preparation of Arab cuisine are herbs and spices, such as caraway, cinnamon, garlic, mastic, saffron and thyme; dried fruits, such as dates and raisins; nuts, such as almonds, hazelnuts and pistachios; fresh fruits; sugar and honey; vegetables such as onions, carrots and spinach; rose water; vinegar; and various dairy products (Kritzman, 1999; Arabic Cuisine, 2008; Food as a tool to keep culture alive, 2013). The main staple for most Arabs is bread, although rice is also important, and olive oil is the main fat that is used for cooking (Food as a tool to keep culture alive, 2013). Eggplant is favoured as a vegetable, and fruit is commonly served as a dessert (Arabic Cuisine, 2008).

Immigrants also have particular culturally-associated patterns of infant feeding. A study of Middle Eastern Mother (Arab/ Farsi) living in Alberta showed that most influences

on infant feeding practices were culture beliefs such as listening to grandparents' advice, introducing food at earlier ages, introducing unhealthy food or drink such as water mixed with sugar, pre-lacteal feeds, and more emphasis on feeding their baby Halal food rather than giving her/him a Vitamin D supplement (Jessri et al., 2015).

2.5.3 Acculturation and Its Influence on Food Choice among Arabs

The rationale for focusing on Arabs who identify as Muslim takes into account the fact that religion plays a major role in informing the beliefs, values, and attitudes of individuals, including attitudes and behaviours concerning food. As Sandicki (2006) has explained, religion is a major aspect of ethnic identity and, as an aspect of culture, greatly influences acculturation. Since religion is usually adopted from an early age, it has a significant influence on the development of behaviours, including in relation to consumerism (Berkman et al., 1997). Also, Tami et al., (2012) indicated that Arab mothers who were living in United States for five years or more as bicultural, due to their ability to merge their traditional foods with Western foods.

2.6 The Food Habits of Other Immigrant Groups in Canada

Many studies have been conducted focusing on several factors that possibly influence the dietary habits of immigrants to Canada and in other countries, such as the United States, the United Kingdom and other European countries. One key area of study is how immigrants change their food choices and adapt to Western foods, which are generally higher in fat, sugar and salt (Gilbert & Khokhar, 2008). This adaptation occurs as a result of the unavailability of food items that the immigrants are accustomed to purchasing, factors relating to pricing, socioeconomic status, and the ease and convenience of food preparation.

While research has demonstrated that different ethnic groups often have very

different dietary habits, upon immigration changes occur over time whereby immigrants move away from their traditional diet, as they gradually adopt a more mixed diet that includes aspects of their traditional dietary intake as well as the more Westernized diet. Other research has indicated that younger immigrants tend to change their food habits more readily than older immigrants (Gordon et al., 2000; Kim et al., 1984).

In the Canadian context, a cross-sectional study involving Indian immigrants and their families who moved to Newfoundland, Canada, found that the majority of the participants reportedly engaged in healthy lifestyle practices, but the group as a whole did not meet Canada's Food Guide recommendations for grains or fruits and vegetables. This may be partially due to the fact that 65% of the participants reported a lack of availability of traditional Indian foods, and 72% reported changing their food preparation methods since immigrating (Varghese & Moore, 2002). These research findings make it clear that immigrants may have to adapt to changes in food availability in a new host country, which may increase their risk of developing health problems due to changes in their dietary patterns. Moreover, there is a possibility that immigrants may be at increased risk of diet-related health problems and that the potential causes for this increase in risk are directly related to dietary factors.

Furthermore, other research focusing specifically on Chinese immigrants to Western countries, including Canada, investigated how the diets of these immigrants changed post-immigration, and their relative awareness and knowledge concerning healthy eating practices. While there were many favorable changes that occurred post-immigration in over 50% of the immigrants (greater fruit and vegetable consumption, reduced deep-fryer use, greater knowledge of healthy eating), there were also negative changes (larger

portion sizes, increased frequency of dining out, higher consumption of convenience foods). This showed how both positive and negative changes occur in terms of the dietary behaviours of immigrants to Canada, at least for this specific cultural group (Rosenmoller et al., 2011). Moreover, Vallianatos & Raine, (2008) showed that in smaller Canadian cities South Asian and Arabic mother had difficulty in maintaining authentic traditional food due to unavailability of traditional ingredients and integration of new food preparation methods to adhere to their children's requests. While further research is required on this topic, it appears that immigrating to a new country, for most immigrant populations, will involve both positive and negative changes to their diet, which may, in turn, have both positive and negative impacts on their nutritional status as well as their diet-related health outcomes.

This study makes a contribution in terms of filling the gap regarding our understanding of the perception of food choices or any factors that cause changes in eating habits among of Arab Muslim immigrants. It also fills in an existing gap by using an acculturation scale to assess any relation between the changes in their food choices.

2.7 Conclusion

Over the course of this literature review, a number of topics central to this proposed study have been discussed. The literature reveals that Arab Muslim immigration to Canada is increasing but, at the same time, there appears to be increased Islamophobia, which could negatively affect Arab Muslim immigrants. This is arguably relevant to the proposed study because Islamophobia presents new Arab Muslim immigrants with unique challenges, which could negatively impact their ability to integrate into Canadian society, result in acculturative stress, and negatively impact their health. For example, the stress caused by Islamophobia could result in Arab Muslim immigrants having a greater desire to maintain

their traditional diets, to remind themselves of their country of origin. Alternatively, it is also possible that Arab Muslims could make great efforts to adopt typical Canadian dietary practices, in an effort to fit in with their new society. In either case, the Islamophobia could have an impact on their adaption process in terms of their food choices and lifestyle in a new environment.

Nonetheless, many Arab Muslim immigrants are still arriving in Canada, and are making efforts to become acculturated within their new host country. One of the main aspects of this acculturation is dietary, whereby immigrants often change their diets when in a new country due to a number of factors. Dietary acculturation is important to study because it can have negative as well as positive influences on the lives and health of immigrants. Arab Muslim immigrants can be viewed as a special case in this regard, as their religion involves a number of regulations surrounding dietary behaviours.

Chapter 3

Study Rationale, Theoretical Work and Objectives

3.1 Rationale

Arab Muslims are a growing population in Canada, yet relatively little is known about their dietary/food choices. It is important to improve our understanding of this group's food choices, as they face various challenges upon immigrating to Canada, including adapting to the new food environment. For this reason, this study will examine the food choices made by Arab Muslim immigrants.

In the research study, mothers were interviewed because “Women have the primary responsibility for ensuring that food proscriptions are followed and that suitable foods are available for their families through appropriate food preparation and cooking activities” (Vallianatos & Raine, 2008, p. 360). Notably, immigrant women act in the role of dietary gatekeepers, as they tend to make an effort to maintain a sense of the original culture and family values through the preparation and serving of traditional foods, while balancing this by introducing their families to more typically Canadian foods as well (Vallianatos & Raine, 2008). Motherhood in Islam as defined by the Quran and the Hadith indicates the major roles that the Muslim mother plays in her daily life is taking care of her house and children. As Al-Jayyousi et al., (2014) said “mothers have a very special place. They are respected and recognized in the family. They face the difficulty of pregnancy, childbirth, nursing, and struggle in child rearing”. One of the Muslim Hadith texts (Sunnah) indicated Motherhood in Islam as follows: “Narrated Abdullah Ibn Umar: Each of you is a guardian and is responsible for his ward. The ruler is a guardian and the man is a guardian of the

members of his household, and the woman is a guardian and is responsible for her husband's house and his offspring, and so each of you is a guardian and is responsible for his ward" (Al-Bukhari, 1997). Another study of South Asian Muslim Mother in Canada found that mothers play another role on influences on acculturation by continuing to practice their culture beliefs and teaching them to their own children (Maiter & George, 2003).

Within the relevant field of research, there is a growing body of evidence that demonstrates similarities between parents' and children's food acceptance, dietary preferences, dietary intake, and willingness to try eating unfamiliar food options, in particular between mothers and their children (Henney & Bacquet, 1986). The influence of mothers in particular on their children's dietary intake is underscored by the finding that if a child is told that his or her mother may inspect what they chose to eat in regard to a food selection/eating experiment, then this threat alone—even if it is not acted upon—has a demonstrable effect on what food options the child chooses to consume for his or her meal (Whear & Axford, 2009). Most mothers are concerned about the health of their children and try to influence their diet with a number of different strategies (Moore et al., 2007; Carnell et al., 2011; Moens et al., 2013). Furthermore, it has been noted that the roles played by mothers and wives are very important in relation to how womanhood is constructed (Zaatari, 2006). Therefore, this primary research will focus on mothers because of the key role women play in food preparation, as demonstrated by previous research.

3.1.1 Arab and Muslim Immigration to Kitchener –Cambridge-Waterloo and Mississauga

According to the 2011 census, the Kitchener-Cambridge-Waterloo (KCW) area is composed of 469,935 individuals (Statistics Canada, 2013). Of those, 24,675 are not citizens. KCW's immigrant population is 108,720, the vast majority of whom were born outside of Canada, with 69,740 of those having arrived after 2000. The immigrant population is relatively young, with only 7,085 immigrants over the age of 45. Only a relatively small number of individuals, 6070, who immigrated to the Kitchener-Waterloo area came from Africa. Of those, 40 were from Morocco, 65 were from Algeria, and 900 from Egypt. A further 345 individuals were from Lebanon and 1,360 were from Iraq, which are Arab Middle Eastern countries situated within the Asian continent. The majority of residents, 315,105, identified as Christian. Islam is the second most widely practiced belief system, with 18,940 individuals who identified as Muslim. A total of 117,230 residents reported no religious affiliation.

The Kitchener-Cambridge-Waterloo area is considered to be relatively affluent and to have a well-educated population. The median family income in 2010 was \$83,333 compared to the median family income of Canada as a whole, which was \$76,550 (Statistics Canada, 2013). A total of 200,630 residents hold a post-secondary certificate, diploma or degree, with 51,380 holding a bachelor's degree, and 31,665 holding a degree or diploma above the bachelor's level. The area benefits from the presence of two major universities, the University of Waterloo and Wilfrid Laurier University.

The city of Mississauga, which lies 85 kilometers to the east of Kitchener-Cambridge-Waterloo, has a significantly larger and more ethnically diverse population.

According to the 2011 census, the city had a population of 708,730. Of that total, the majority, 374,575 or 52.9%, were born outside of Canada (Statistics Canada, 2014). A total of 8,275 were non-permanent residents. Of Mississauga's residents who were not born in the city, 100,680 arrived between 1991-2001 and 130,075 arrived between 2001-2011. In terms of the ethnic makeup of the Mississauga population, the majority of immigrants, 207,500, were born in Asia, with India and China as the two most common Asian countries of origin. In terms of Arab countries specifically, 7,045 were born in Egypt, 5,302 in Iraq, 2,905 in Lebanon, and 1,350 in the United Arab Emirates, 180 in Algeria, 170 in Morocco, and 65 in Somalia. The religious makeup of Mississauga is predominantly Christian, with 424,715 individuals identifying as Christian. A total of 105,660 individuals identified as having no religious affiliation. The second most popular religion was Islam, with 84,325 adherents, followed by Hinduism with 49,325 followers (Statistics Canada, 2015b).

While the ethnic and cultural makeup of Mississauga is more diverse than that of Kitchener-Waterloo, the median family income was similar and, in fact, slightly higher at \$85,829, though the median monthly shelter costs for owned dwellings is higher at \$1,519 per month compared to \$1,246 in KCW (Statistics Canada, 2014). The population of Mississauga is also relatively well educated, with 344,475 residents holding at least a post degree or diploma, 172,725 having completed a bachelor's degree, and 67,245 holding a degree or diploma above the bachelor's level. Like KCW, Mississauga has a strong economic base supported by sectors in the life sciences, information communications and technologies, advanced manufacturing and financial services (City of Mississauga, n.d.). Mississauga is also similar to KCW as it is home to a major university—the University of Toronto (Mississauga).

The decision was made to focus on these two areas in Ontario for the proposed study because Ontario has a relatively large number of Arab immigrants as compared to other Canadian provinces, with the exception of Quebec. Between 1985 and 2012, approximately 5 out of every 6 Arab permanent residents moved to either Ontario or Quebec (El-Assal, 2014). Out of the total of 527,025 Arabs who became permanent residents of Canada between 1985 and 2012, 40.8% of them settled in Ontario, with only Quebec taking in a greater number of Arab permanent residents (at 45.6% of the total) (El-Assal, 2014). Arab immigrants prefer to settle in Ontario and Quebec, as compared to other provinces, for various reasons related to language, employment opportunities, and the history of immigration trends (El-Assal, 2014).

3.2 Research Gap

This study investigates perceptions about food and food choices of Arab Muslims immigrants living in Canada in terms of whether they have maintained their traditional diet or are incorporating more Western foods. The study focuses on mothers, due to their key role in food preparation for the household. Very little research has been conducted on Arab immigrants in Canada in general and Arab Muslims more specifically as a growing community. Thus, there is a lack of knowledge concerning their acculturation experience as they adapt to the Canadian context, as well as regarding the impact that acculturation has on their food choices specifically. The proposed study will help to fill in this gap in the literature by improving our understanding of the relationship between perceptions about food and experience of food choices and length of residency in the new environmental contact of Arab Muslim immigrants to Canada. This research is not driven by hypotheses because of its qualitative approach. However, based on the literature review, it can be

generally hypothesized that immigrating to Canada will have an impact on the perceptions about food and food choices of Arab Muslim immigrants similar to other immigrants group mentioned earlier in this paper. These effects will more likely include changes in the consumption of traditional foods and an adaptation to a more Westernized diet.

3.3 Research Objectives and Questions

This study has three main objectives: 1) to explore the impact of length of residency on participants' perceptions about food and food choices in terms of which they have maintained their traditional diet or have transitioned to a more Westernized diet ; 2) to gather information concerning the Arab Muslim food culture ; food consumption ; and food preparation methods in order to have a better understanding of the changes that participants experience in terms of their food choices as a result of new culture ; and 3) to assess participant's acculturation level and explore apparent links between acculturation level and experiences of dietary transition following immigration to Canada.

To meet this objective, the proposed research will address the following questions:

- What were the self-described dietary habits of Arab Muslims before they migrated to Canada?
- What changes have occurred in the diets of Arab Muslims after immigrating to Canada?
- How do mothers from Arab-Muslim community see/practice daily food preparation upon migrating to Canada?
- Which traditional foods do Arab Muslims consider to be the most important to keep and why?

- What challenges do Arab Muslims in Canada report in relation to their food consumption?

As discussed later, since this is a qualitative study involving only 24 mothers with specific inclusion criteria, the results do not provide a definitive picture for all Arab-Muslim immigrants. Nevertheless, they may help to provide useful guidance for future research.

Chapter 4

Research Design

4.1 Methodology

This study involved qualitative research to answer the research questions. The use of qualitative methods allowed for considerable flexibility while conducting this proposed research (Denzin & Lincoln, 2005). Also, it is important to understanding the nature of practicing qualitative research as Denzin & Lincoln, (2011) defined the qualitative in their last published book “a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to self ... qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them.” (p.3). Notably, qualitative research allowed the researcher to learn more about food choices/eating choices experience of Arab Muslim immigrants in their natural setting in Canada and allowed the researcher to interpret this phenomenon and the meanings that the participants attach to it.

Data were collected using face-to-face semi-structured interviews. According to Schensul et al., (1999) the semi-structured interview comprises of “pre-determined questions related to domains of interest, administered to a representative sample of respondents to confirm study domains, and identify factors, variables, and items or attributes or variables for analysis.” (p. 149). The interviews consisted of open-ended questions to explore the relationship between food choices and the new environmental context of Arab Muslim immigrants to Canada, including the degree to which they have

maintained their traditional diet or are incorporating more Western foods. Although the primary approach was qualitative, also researcher collected sociodemographic data and questions on acculturation, and examined whether there were patterns in the qualitative data. These were by way of exploration of the data, and due to small sample size no formal tests of significance were used.

4.1.1 Phenomenological approach

This study employed a phenomenological approach “to understand an experience from the participants’ point of view” (Leedy & Ormrod, 2001, p. 157) by exploring the perception of food choices of Arab Muslim immigrants to Canada and investigating their experiences around food choices. Topics examined included accessibility, availability, affordability, children’s preferences, as well as assessing the participant’s acculturation level and exploring apparent links between acculturation level and experiences of dietary transition following immigration to Canada, with a view to determining how far they have maintained their traditional diet or are incorporating more Western foods into their diet. The nature of this study was intended to examine “the central underlying meaning of the experience and emphasize the intentionality of consciousness where experiences contain both the outward appearance and inward consciousness based on the memory, image, and meaning” (Creswell 1998, p. 52). Phenomenology focuses on the lived experiences of individuals in relation to a particular phenomenon, including how they experience that particular phenomenon (Creswell, 2007). The main goal of phenomenology is to consider how individuals experience a phenomenon in an effort to gain a more universal picture of that phenomenon and how it is experienced (Creswell, 2007). The phenomenological study of individual’s experiences with a phenomenon includes their perceptions and feelings

regarding the selected phenomenon (Guest et al., 2012). Generally, the phenomenological approach to studying the nature of experience also tends to focus on “things that matter to us, and which constitute our lived world,” and food choices surely matter as a significant aspect of our lived experience as humans (Smith et al., 2009, p. 11).

4.1.2 Why a Phenomenological Approach

Notably, a number of different qualitative research methods could have been used for this study instead of the phenomenological approach. The case study method could have been used, but for it to be useful, this study would have needed to focus on a particular event, activity, process, or program related to the study topic (Williams, 2007). Since the focus was instead on how a population acculturates, an ethnographic study (a sort of case study) might have been more appropriate, since an ethnographic study investigates a cultural group in its natural setting (Williams, 2007). However, for this research, the cultural group is highly diverse (including Muslims from various countries of Arab origin) and is studied in an unnatural setting (the country, Canada, that the population has immigrated to). A content analysis study could have also been an option, but its focus is on the content of materials related to the study topic (Williams, 2007). In the case of Arab Muslim dietary acculturation in Canada, there would be very little content to analyze. Instead, the emphasis in this research was on the subjects’ experience of dietary acculturation in the Canadian context as a distinct phenomenon. Thus, a phenomenological study was chosen as the best option, as this type of study aims to understand how participants perceive a particular phenomenon or experience in their lives (Williams, 2007).

4.2 Participant Selection

Recruitment was conducted using a printed poster that included information regarding the study and the kind of individuals being recruited to participate. The poster was posted in two languages, English and Arabic, at a variety of locations around Waterloo, Kitchener, Cambridge and Mississauga, including Muslim community centers, City Masjid, halal retail shops, Islamic schools (Appendix A). The poster was also placed on Facebook and some participants were recruited this way.

In qualitative research, the goal of data collection is to reach the point of data saturation, meaning that the collection of additional data will not reveal anything new about the phenomenon under investigation, within the specific population group under study (Mason, 2010). For that reason, there is no specific formula to determine sample size and, moreover, sample size cannot always be determined at the outset of a study (Marshall et al., 2013). That said, existing research can be used to get a sense of the range of a sample size that is likely be required to reach saturation. Reviews of phenomenological studies reveal that they typically involve 6 to 10 participants (Denzin & Lincoln, 1994; Kuzel, 1999; Morse, 2000). For this study, the researcher recruited 24 participants (mothers) who were in charge of daily meals, as she intended to have a sample drawn from two geographic locations and which included participants who have been in Canada for varying lengths of time. Thus, the research recruited 12 participants from both the Waterloo, Kitchener, Cambridge area and from Mississauga. Participants were chosen on a first-come basis and in some cases suggested additional contacts (snowball recruitment). It was intended that each group of 12 participants should include 4 participants who had been living in Canada for between 5 to 10 years, 4 participants who had been living Canada for between 10 to 15

years, and 4 who had been living in Canada for 15 years or more. However, it was not possible with the recruitments method to exactly satisfy this condition, although a reasonable distribution of length of stay in Canada was achieved. All participants were first-generation Arab Muslim immigrant mothers who are citizens or permanent residents of Canada, married, and who are above 18 years of age. The study excluded those who had lived in Canada for less than five years, as it was felt that this would not allow sufficient time for mothers to learn enough about Canadian food and food practices.

Also, to assess the dietary acculturation this study included a question about food choices before and after immigration to help gain an in-depth view of dietary changes associated with immigration. Various studies (Satia-Abouta, 2003; Berry, 1980; Satia et al., 2001; Satia et al., 2000; Bermudez et al., 2000) have demonstrated that acculturation depends on greater exposure to a host country's popular culture where exposure is in turn facilitated by residing in the host country for a longer period of time. The rationale for choosing participants who have been resident in Canada for different lengths of time was to support the first objective of the study, which was to explore the impact of length of residency on participants' food choices in terms of the extent to which they have maintained their traditional diet or have transitioned to a more Westernized diet.

Immigrants were chosen rather than refugees because immigration is an individual choice and the majority of immigrants hold higher education degrees, have good income, and are looking for a good quality of lifestyle. In other words, they are more likely to integrate well to the Canadian context; adapt smoothly to the environment; and face less barriers (i.e. - English language). In contrast, refugees are pushed to flee their country due to war, fear or feeling unsafe. The differences in motivation (choice or pushed) is likely to

impact on aspects of their daily lives such as the perception of the food choices, level of adaptation/contact to the new culture and the way of integrated to Canadian environment/context. Understanding food choices of refugees would be of interest for a separate study.

Mothers were chosen rather than fathers because some researchers have found that immigrant women act in the role of dietary gatekeepers (Vallianatos & Raine, 2008). Mothers tend to make an effort to maintain a sense of the original culture and family values through the preparation and serving of traditional foods, while balancing this by introducing their families to more typically Canadian foods as well (Vallianatos & Raine, 2008).

Also, Muslim family (married) immigrants were chosen rather than single or divorced mothers due to: first insufficient data about divorced or single mother immigrants especially Arab Muslim living in Canada; second, researchers showed the formation of family units may affect food choices as negotiations are made with spouses (Bove et al., 2003; Brown & Miller, 2002) and food needs to be provided to children as well (Lupton, 2000); third, in Islam it is well known that a man or husband is responsible to support his family even if his wife is not working (Dhami & Sheikh, 2000). However, the gender roles have changed a lot and currently women from Arab countries are working and have rights of equality. The results chapter showed this has changed among Arab Muslim immigrants living in Canada. Demographic data were collected from all participants who responded to the call for participants.

4.3 Data Collection

The principal data collection method for this study involved face-to-face semi-structured interviews. Semi-structured individual interviews were chosen for this study because they allow participants to go into greater depth in terms of their self-expression, and they allow the researcher to gain data from the participants according to the latter's own words, feelings, thoughts and experiences (Liamputtong, 2009). The semi-structured interviews for this study consisted of open-ended questions that posed to participants about their attitudes/experiences concerning food choice, the flavour of their traditional foods, food preparation, and their family's food flavour/texture preferences in relation to food availability in the new culture (Appendix B)¹. The interviews were conducted in the Arabic language, and each interview took between 30 minutes and one hour. Also, the interview was conducted in a public place, such as a library or community center. The researcher was flexible to meet mothers at any day, time and location as convenient as possible for the mothers (e.g. YMCA, mall, and coffee shop), and did the best possible to make the location private and comfortable for participants. Demographic information was collected before the start of the qualitative interview, such as participants' age, country of origin, status in Canada, annual income, education level, occupation, number and age of children. These data were used to help analyze the qualitative responses, by dividing the sample into subgroups depending on the sociodemographic and acculturation categories, to gain additional insight.

¹ Some of the interviews questions were adapted from Alakaam, A. A., Castellanos, D. C., Bodzio, J., & Harrison, L. (2015). The Factors That Influence Dietary Habits Among International Students in the United States. *Journal of International Students*, 5(2), 201-218. Also, some questions were added based on my supervisor and committee members suggestions.

The interview sessions were audio-recorded and transcribed to allow for the creation of in-depth descriptions of the study findings. Recording the interviews on audiotape allowed the researcher to give the participant her complete attention and take note of non-verbal behaviors. It also allowed the researcher to confirm every word the participants said. An incentive was provided at the end of the study: a \$10 gift card for a major grocery store as an appreciation for their time. Participants were given a consent form (Appendix C) to sign before the interviews began. Also, prior to the interviews being conducted, the procedure and guidelines for the interview was orally explained to the participants.

4.4 Acculturation Measure

In addition to the semi-structured interviews, the researcher also administered an adapted version of the Male Arab-American Acculturation Scale (MAAS) to all study participants. This measure was developed by Barry (2005). The items in the scale are gender neutral. The only changes that were for this study are the references to America / American that were changed to Canada / Canadian. For example, item 4 “I behave like an American in many ways” were changed to “I behave like a Canadian in many ways.”

The purpose of including this measure was to gain a basic understanding of the extent to which participants are acculturated into Canadian society. The MAAS has been used to measure acculturation among male and female Arab Americans (Al-Omaria & Scheibmeir, 2009). It has also been used to measure acculturation among the female Arab American population. MAAS is comprised of two subscales: the first measures an individual’s sense of separation/assimilation and the second measures their sense integration/marginalization. Each subscale contains four questions which are measured by

an eight-item Likert-type format scale that ranges from 7 (strongly agree) to 1 (strongly disagree). Scale scores are derived by combining reverse scored and positive-scored scale items. In the first subscale, separation versus assimilation, Arab Americans are asked about their preferences regarding socializing and communicating with other Arabs and Americans. Higher scores in this subscale indicate that the participant is primarily socializing with other Arabs and so are less assimilated into mainstream American society. The second subscale, integration versus marginalization, examines the extent to which Arab Americans are able to interact with both Arabs and Americans, with a similar degree of comfort. Higher scores indicate that participants mix equally well with both groups and are equally at ease socializing with either Arabs or Americans. In terms of the reliability of the MAAS, Al-Omaria and Scheibmeir (2009) found that overall internal consistency reliability coefficients for the separation versus assimilation scale was 0.54, and 0.55 for male and female respectively. While the integration versus marginalization scale was 0.73, 0.75 for male and female respectively (Appendix D). Statistic Canada, 2007 suggested that to have good reliability, coefficients range between 0.80 to 0.89; and 0.90 or more excellent. While the acceptable reliability range between 0.70 to 0.79; and limited at 0.70, thus the reliability of the MAAS scale is acceptable but not very high.

For this study, the researcher did not undertake a detailed statistical analysis of participant responses. Instead, the data obtained through the adapted MAAS were discussed in a descriptive manner. For example, the researcher noted that 3 out of 24 participants would prefer to live in an Arab country. The scores from the two acculturation subscales (separated vs. assimilated) and (integrated vs. marginalized) were also used to examine the frequency of mentioning items from the qualitative analysis regarding food

choices. Of particular interest was any correlation between the MAAS acculturation measures and the preference for continuing to cook traditional food. However, correlation analyses included in the results but no formal test of significance was used; these just suggest hypotheses for testing with a larger sample. The MAAS survey was translated into Arabic to accommodate the participants comfort as well as to give them the priority to choose between the Arabic or English version to answer. All participants chose to respond in Arabic except for one participant who completed the MAAS survey in both languages. The internal reliability or Cronbach Alphas for the MAAS were calculated by using the SPSS (Statistical Package for Social Sciences) software.

4.5 Data Analysis

Data collected through the semi-structured individual interviews were first transcribed and then translated from Arabic into English word for word using a transcriptionist who was required to sign a confidentiality agreement (Appendix E). One quarter of transcripts were translated by the researcher due to time and funding constraints. Also, all interviews translated by the translator were reviewed carefully by researcher to make sure that all information was translated and included. Once the transcripts were translated, they were then uploaded into the NVivo11 Qualitative Analysis Software environment. As with other forms of qualitative research, data analysis in phenomenology uses an inductive approach to finding meaning and patterns in the data (Ray, 1994). In order to facilitate this approach and to guard against the researcher imposing her own interpretative lens on the data, the technique of bracketing was used to enable the researcher to be more self-aware of her possible biases, assumptions and preconceptions, which she may bring to her analysis of the data (Creswell, 2007). In phenomenology, therefore,

bracketing exercises are performed as a crucial first step before analysis formally begins and throughout the data analysis process (Groenewald, 2004). The NVivo program has a memoing feature which the researcher in this study utilized in order to record her thoughts and impressions about the data as they arose and, in doing so, bracket them out.

In phenomenology, the second step of data analysis involves the delineation of individual units of meaning, though a close, line-by-line reading and re-reading of the transcripts (Groenewald, 2004). In the NVivo program, units of meaning can be isolated simply by highlighting text, and once labelled the units of meaning are then referred to as “nodes.” Each node contains a collection of all the references that have been coded under that label. The third step of data analysis involves clustering units of meaning together in order to form coherent themes. In the NVivo program, this is accomplished by grouping related nodes together under the framework of higher order “parent nodes”. The fourth stage of analysis involves the integration of all essential, non-redundant themes into a descriptive statement that is reflective of the combined lived experiences of participants, in all of the complexity (Whiting, 2001).

4.6 Study Rigour

In qualitative research, the strength of the study refers to how trustworthy and rigorous the study is. Rigour is the means by which the research shows integrity and competence (Liamputtong, 2009). Member checking was used in order to meet the criteria of credibility (three of the transcripts). To facilitate transferability, thick descriptions were written so that was possible for others to gain a clear understanding of the determined themes. Some follow up was made with participants to clarify some information from the

interview or to give the researcher more information about certain changes which occurred on their daily food consumption after migration, by phone/WhatsApp/ text message.

It is recognized that the dependability of the study could be confirmed through an external audit and a complete record of all study data are available including raw data, memos, and written reports and close book. All research records are available to completion of an audit trail by an outside auditor, unfamiliar with the researcher, which could determine the conformability and dependability of the study findings (Holloway, 1997). In addition, a sample (2) of the 24 interviews were entered into NVivo by a second qualitative researcher (graduate student) as well as the original researcher, in order to check for accuracy and completeness, and the two transcripts were then compared.

4.7 Reflexive Disclosure

In the interest of fully disclosing how my personal circumstances might come to affect this doctoral research, I will take a moment to engage in reflexive disclosure. It is necessary to note, considering this study's focus on Arab Muslim immigrants to Canada and their dietary acculturation, that I am personally an Arab Muslim mother living in Canada. While I came to Canada from Saudi Arabia as an international student, to study nutrition and dietetics, I applied to become a permanent resident, and successfully became a permanent resident of Canada in 2015 during the second year of my PhD program at School of Public Health and Health system. The researcher of this paper is considered to be an instrument of this research and plays the central role in the collection and analysis of data (Creswell, 2007; Patton, 2002). Interviews were conducted in a language that the participants are comfortable with. The present researcher is from the same culture and speaks the same language, as she is an Arabic and Muslim female. All interview materials

and acculturation survey were translated into Arabic. The researcher is aware about the study rigor and acknowledges to the reader of the possibility of bias which needs to be taken in account along with any other significant effects on the data at any stage of the process. A qualitative researcher's consideration/contribution can be part of the process of analysis and her knowledge can be integrated as a part of qualitative method (Patton, 2002). This researcher took two courses of qualitative methods (introduction & advanced) in order to educate herself about qualitative method, analysis, expectation, limitation, and writing a qualitative research-based thesis. While I acknowledge that my position as a student and an immigrant to this country has certainly affected my interests, I have tried to maintain an objective perspective throughout this study, in an effort to prevent any biases I might have from impacting this research and its results. Overall, this study might help to fill in a gap in the literature by improving knowledge of the relationship between food choice experience and new environment context as well as assessing any relation between dietary changed and acculturation among Arab Muslim immigrants to Canada.

4.8 Ethical Considerations

The University of Waterloo (UW) Office of Research Ethics provided ethics approval. During the study, ethical issues may be emerged in relation to human dignity, informed consent, confidentiality and potential harm to participants. On the day of an interview, before the interview begins, potential participants were given a consent form to sign and return (Appendix C). The researcher explained to participants that the study is voluntary and that they may stop participating at any time. Interviewees were told that they can choose to not answer any questions that may cause them to experience negative emotions. Participants were interviewed in separate areas to ensure confidentiality, and

their personal information was kept confidential. Also, a feedback letter was handed off in hard copy which included the researcher, supervisor, and ethics office's names, email and contact number in two language Arabic and English after the interview (Appendix F). Only the researcher, her supervisor and the transcriptionist have access to information provided by the participants. Each participant's name was coded ("Participant 1" etc.) so that their real names were not revealed in reports (Panel on Research Ethics, 2005). All documents were kept in either a password protected computer or a locked filing cabinet for 7 years, after which time the researcher will destroy all raw data (Jacobson, 2011). These filing cabinets and computers are located in locked offices at the School of Public Health and Health Systems.

Chapter 5

Results

5.1 Introduction

The fifth chapter of the study contains the results from the phenomenological analysis of the interviews with the 24 Arab Muslim mothers regarding their dietary habits and practices before and after migrating to Canada. The purpose of the qualitative phenomenological study was to examine how mothers who immigrated to Canada five years or more ago feed their school-age children; as well as to investigate the mothers' experience of adapting to Canada's different culture in terms of their food choices. A qualitative phenomenological analysis with four stages or steps was employed to analyze the interviews. In addition, NVivo11 by QSR was used to systematically code and tabulate the data collected from the interviews. The software helped in the formation and organization of the study themes or significant perceptions. After the qualitative interviews, an acculturation survey was also conducted and reported in this chapter using *the Male Arab-American Acculturation Scale (MAAS)*, and analyzed using the SPSS (Statistical Package for Social Sciences) software. A short quantitative questionnaire was also employed to obtain socio-demographic data and analyzed using Excel. Five research questions then guided the study:

- What were the self-described dietary habits of Arab Muslims before they migrated to Canada?
- What changes have occurred in the diets of Arab Muslims after immigrating to Canada?

- How do mothers from Arab-Muslim community see/practice daily food preparation upon migrating to Canada?
- Which traditional foods do Arab Muslims consider to be the most important to keep and why?
- What challenges do Arab Muslims in Canada report in relation to their food consumption?

The chapter presents, in turn, the demographics, qualitative data analysis, a discussion of how the demographic variables influencing Arab immigrant's food choices (combining qualitative with quantitative analysis), an analysis of the results of the acculturation scale, the association between the MAAS scale, demographic characteristics, and food choices, the correlation between the two MAAS subscales and concludes with a summary of the results.

5.2 Demographics

Participants were 24 first-generation Arab Muslim immigrant mothers who are citizens or permanent residents of Canada. Their length of stay in Canada varied from five to 23 years at the time of the interview. The mothers were aged 31 to 51 years old. Their countries of origin varied from Syria, Iraq, Palestine, Jordan, Sudan, Egypt, Lebanon, and Morocco. Seven of the participants were housewives; and the rest were employed and had various occupations. The participants' income and citizenship status also ranged as seen in Table 1. Finally, participants also had one or more children aged between 2 to 22 years old.

Table 5.1. *Breakdown of the Participants' Demographics*

Characteristics	n	%
<i>Age</i>		
30 – 40	13	54
41-49	9	38
≥ 50	2	8
<i>Country of origin¹</i>		
Syria	5	21
Iraq	3	13
Palestine	7	29
Jordan	2	8
Sudan	2	8
Egypt	3	13
Lebanon	1	4
Morocco	1	4
<i>Length of Stay in Canada</i>		
5 - 10	16	67
11 – 15	4	17
≥ 16	4	17
<i>Dual citizen</i>		
Yes	20	83
No	4	17
<i>Education (Mother)</i>		
High School	1	4
College/Diploma	2	8
University (bachelor's degree)	19	79
Master's degree	2	8
<i>Education (Spouse)</i>		
University (bachelor's degree)	20	83
Master's degree	2	8
Doctorate	2	8
<i>Employed (Mother)</i>		
Yes	17	71
No	7	29
<i>Employed (Spouse)</i>		
Yes	22	92
No	2	8

of each questions attached in Appendix I. The phenomenological approach, does not required any pre-defined categories and depends on the researcher to find the emerging themes. However, in the results the themes are presented under sections corresponding to each research question to help the reader identify themes and to link the results to the original research questions.

RQ1: Dietary habits pre-migration. Participants of the study were asked to share their dietary habits before migrating to Canada. It was then discovered that the participants' dietary habits varied, depending on the day and occasion. Three key perceptions were then identified as well as their underlying themes and are presented in Table 5.2.

Table 5.2. *Breakdown of the Results for Dietary habits pre-migration.*

Thematic Categories	Themes	Number of Occurrences	Percentage of respondents
Weekday and Weekend Meals	Breakfast includes vegetables, fried food, falafel, bean, and dairy products	18	75%
	Main meals (lunch) include alternating meat, chicken, rice, and vegetables	18	75%
	Dinner includes light meals such as sandwich, dairy products, and fruits	6	25%
Special Occasions	Consume a lot of vegetables due to freshness and availability	2	8%
	Rich traditional meals such as meat, fish, vegetables, rice, and dessert	21	88%
Fast Food or Restaurants	Frequent visits to fast food chains/restaurants	10	42%
	Monthly visit to fast food chains	5	21%
	Non-consumption of fast food	4	17%
	Unavailability of fast food chains	3	13%
	Occasional visit to fast food chains	2	8%

Weekday and Weekend Meals.

The first category had four underlying themes; two major and two minors. The major themes received the most number of occurrences upon the analysis. However, minor themes with fewer occurrences, defined as five occurrences or 21% of the sample and below, can be found in their respective tables. Minor themes that were shared by more than 21% of the sample will be discussed along with the major themes of the study.

Major Theme 1: Breakfast includes vegetables, fried food, and dairy products. As reported in the literature (Kritzman,1999), Arabs keep their focus on dairy-based foods such as yogurt, milk, and cheese. The majority 75% of the participants in the study reflected the following consumption; and shared them during the interviews.

Participant 1 described that their breakfast staples were:

“olives, cheese, labneh [yoghurt cheese], Mesabah [hummus], falafel, normal cheese and butter.”

Participant 7 had a similar menu for breakfast, sharing:

“our breakfast in Sudan consisted mainly of beans, falafel, white cheese with tomato, fried dumplings, and tea with milk.”

Participant 8 also shared a simple and lighter breakfast menu before their move to Canada. This was the time when their children were still very young and did not request or demand other kinds of breakfast food, explaining:

“Sometimes white cheese sandwich with milk and before we emigrate my children were young so I was preparing breakfast for my husband so that he eats first and then, I would eat later in the day, but here the situation is different because my children go to school, so everybody gets up early and we have breakfast all together.”

Participant 10 added that their breakfast prior to immigration was mostly composed of boiled eggs and dairy products, expressing:

“In breakfast, we used to eat boiled eggs, sour cream, cheese, jams, tea and coffee, not Corn Flakes because we learned it here... milk, oil and thyme.”

Participant 11 then stated that their breakfast had the usual dairy products and vegetables. However, during the weekends, they would usually prepare a broader array of breakfast choices:

“First thing is breakfast: olives, cheese, labneh [yoghurt cheese], Mesabah [hummus], falafel, normal cheese and fava bean. Sometimes especially on the weekend or when we are going together with family and friends on breakfast we were preparing Fattah (Hummus, pita bread and yogurt).”

Participant 12 then shared that their breakfast consisted of dairy products as well as fried dumplings and vegetables, describing:

“Our breakfast in Sudan consisted mainly of beans, falafel, white cheese with tomato, fried dumplings, fried eggplant and tea with milk; all our food was eaten with our special Sudanese bread that I really miss here.”

Also, Participant 15 mentioned that:

“We had a typical Palestinian breakfast. Oil, thyme, cheese, labneh, hummus, fool, falafel, and jam.”

Lastly, Participant 9 stated how their breakfast before was unhealthy, and the main reason for their weight gain, sharing:

“our Egyptian breakfast was unhealthy and increases the weight. Our breakfast contained beans and falafel and fried egg with animal ghee, and fries.”

Major Theme 2: Main meals (lunch) include alternating meat, chicken, rice, and vegetables. Another finding was the description of the participants’ main meals before their migration to Canada. Again, 18 or 75% of the participants indicated that they practiced alternating meat, chicken, rice, and vegetables within the week when they were still living in their countries of origin. In the literature, Kritzman (1999) specified that indeed, Arabs have various and distinct food fundamentals such as dairy products to lamb and camel hump.

Participant 1 described how she prepares their main meals. She stated that as they are not meat lovers, she tried to alternate meat and vegetables within the week:

“Lunch would be: usually we had one dish of meat on this day then (something different) the second day. This is us, we are not meat lovers. We do not cook meat every day but rather meat on one day and the second day a vegetable-based meal.”

Participant 2 added that they also tried as much as possible to mix meat and vegetables into their main meals. She then shared that they preferred vegetables over meat back home:

“In addition to chicken, meat twice a week, stuffed vine leaves, stuffed cabbage, green onion soup, cauliflower fried with eggs, different salads, and bulgur. The same dry beans which we prefer more than meat with rice on regular basis.”

Participant 3 added that aside from vegetables and dairy products, they also ate chicken and other fried food, for lunch saying:

“we ate chicken, maqluba (made of rice, meat and eggplant served with plain yogurt), eggplant, corchorus/Molokhia (a genus of about 40–100 species of flowering plants in the family Malvaceae, native to tropical and subtropical regions throughout the world), and peas; this is the Arabic cuisine and our traditional Arabic food.”

Participant 3 also stated that they used to strictly follow the traditional Arabic cuisine while they were still in Kuwait, saying:

“we ate chicken, maqluba (made of rice, meat and eggplant served with plain yogurt), eggplant, corchorus, and peas; this is the Arabic cuisine and our traditional Arabic food.”

Participant 5 echoed that they also cooked Arabic food at home pre-emigration, stating:

“Arabic foods, rice, chicken and meat back in the day.”

Participant 6 from Iraq simply shared that their meals consisted of:

“Rice and meat cooked with tomatoes. Our foods look like the Syrian and Lebanese foods.”

Meanwhile, Participant 9 expressed that with their Egyptian background, they were accustomed to having different and multiple types of food during their main meals. She described having meat, vegetables cooked with rich dairy products and spices:

“We were eating meat, macaroni bechamel, stuffed zucchini, stuffed cabbage and all cooked with Ghee extracted from animal that was rich of

fat/creamy in addition to the tomato sauce. Typical of Egyptian food.”

(Ghee is clarified butter).

Participant 10 emphasized that she also followed the traditional Arabic cuisine which consisted of rice, vegetables, meat, chicken, and other dairy products:

“For lunch we cooked stuffed vegetables, Makloubia (made of rice, meat and eggplant served with plain yogurt), Mesakhan (chicken with special homemade bread), Maftoul (is Palestinian Couscous), Cabbage, Mansaf (traditional Jordanian dish containing meat and rice served with special yogurt); eggplant, corchorus, and peas; this is the Arabic cuisine and our traditional Arabic food.”

Finally, Participant 17 indicated that it was important to have the following for their main meals:

“Lunch was always carbs: rice, bread or potatoes plus protein.”

Minor Theme 1: Dinner includes light meals such as sandwich, dairy products, and fruits. Another important finding was the participants’ choice of consuming light meals for dinner, prior to immigration to Canada. The perception was supported by six of the 24 participants interviewed or 25% of the total sample. According to these participants, their dinner menu was much lighter and simple as compared to the other meals of the day.

Participant 10 described that their dinner usually consisted of light food:

“Dinner was light: cheese sandwiches, nuts or fruit and it was around 11pm or 12am late at night, Unlike Canada we no longer have dinner.”

Similarly, Participant 14 shared that they had only ate sandwiches for dinner:

“Supper was after we come back from school. We called this meal lunch. At night, we would take a sandwich of Thyme.”

Meanwhile, Participant 17 emphasized how dinner back then was not as significant as they would even sometimes cancel their meals for supper:

“Dinner was light, usually a dip or sometimes we would cancel dinner. This was in Saudi.”

Special Occasions.

Major Theme 3: Rich traditional meals such as meat, fish, vegetables, rice, and dessert. The second thematic category generated just one theme that 21 or 88% of the participants indicated that they served rich and traditional meals when they were home which included meat, fish, vegetables, rice, and dessert.

Participant 1 described their meals on special occasions as “*rich*”. She indicated that they used to serve barbecues, leg of lamb, rice, yogurt, and desserts. She also highlighted that meals had to be “*shared*” during those times, emphasizing:

“We frequently had barbeque, and Safiha (ground meat mixed with tomato and onion) for visitors or when visiting people and you take food to them. You take stuffed chicken. You have to prepare a rich meal for family gatherings.”

For special occasions meals were also rich, describing:

“We often had roast lamb, mainly the leg. Leg of lamb with rice, pasta, meat cooked in/with yogurt and served with rice, not only rice but for example now we barbeque meat and eat meat only with salad.”

Participant 2 added that in Eid, they would have the following staples in their meals, stating:

“yes, in Eid we prepare chicken, then a local meal called Uarlama; made of ground beef and some fine bulgur mixed together and made into small balls cooked in salsa with mint.”

Participant 3 stated that during the first Eid, they would have pastries; while in the second Eid, they served rice, vegetables, meat such as lamb, and other food cooked in butter. She added that they would also slaughter animals as part of their family tradition.

“During the first Eid, we eat Mammoul means “stuffed” in Arabic (shortbread pastries filled with dates, pistachio, and walnuts), and during the second Eid we eat meat such as fatteh (grilled lamb cubes, chickpeas and pine kernels, served with sizzling butter) also BBQ meat later afternoon. We make meat fatteh and other meals with the meat of our slaughtered animals.”

While Participant 4 shared that even if she does not eat meat, she used to cook ribs and rice during special occasions for her family during Eid and explained that:

“During the Eid before the immigration, we used to cook ribs and mansaf (traditional Jordanian dish containing meat and rice served with special yogurt); but I don’t eat meat. I used to eat rice or any food without meat.”

Furthermore, participant 5 said that:

“we used to slaughter animals in the morning (of Eid) and cook liver and spleen to make meat fatteh (grilled lamb cubes, chickpeas and pine kernels, served with sizzling butter).”

Participant 7 indicated that they would also cook lamb and serve it with rice during Eid and other special times. Meanwhile, they also serve bread and other Sudanese cuisines:

“Lamb cooked with rice, we were buying the meat and sent it to the restaurant and they were cooking it for us there, so that we received it ready to eat”. “But in Sudan, in the Baïram (Eid) we eat very dried meat which is very famous there, also dried Okra, these are a main Sudanese dish, which is eaten with a special bread made of water and flour that becomes very thick after mixing.”

From Egypt participant 9 stated that they would usually have a lot of food during the Eid celebrations. She described:

“In Eid Al-Fitar or Eid Al-Adha we were eating a lot of food with our family such as fish in Eid-Alfitar and meat in Eid Al-Adha in addition to our traditional dessert such as cookies with date filling, Egyptian biscuits, and frozen rice pudding.”

Finally, Participant 23 supported the other participants’ experiences and described their meals as “rich” on special occasions. Similarly, they would have lamb, rice, and yogurt. Again, meals had to be “shared” where the participant reported:

“For special occasions meals are also rich. We used to cook out traditional food in Eid such as couscous with meat and vegetables, People there were not familiar to go out and eat at restaurant in Eid or any special occasion. Even though in wedding day we had to cook the food at home then take to the party area for our guest.”

Fast Food or Restaurants.

Major Theme 4: Frequent visits to fast food chains/restaurants. Another finding was that even before migration, participants would already have frequent visits to fast food chains and/or restaurants. From the analysis, 10 or 42% of the participants used to visit such restaurants before coming to Canada. According to the literature (Tami et al., 2012), families' consumption of fast food and non-traditional foods usually increases after their migration as part of their acculturation process. In addition, exposure to westernized food was also another factor (Gilbert & Khokhar, 2008). However, in this case, participants already reported that they frequently visited various fast food chains and restaurants even before relocating to Canada. One reason could be that the participants came from relatively affluent backgrounds, with high levels of education (see section 5.2). Immigrants from some countries increase the frequency of eating out in fast food restaurants upon immigration. But in the middle East, perhaps because of relatively high income, this is already fairly common.

Participant 3 stated that:

“We used to go out during weekends because my mother and father used to go to work.”

Participant 4 already lived in a foreign country before coming to Canada. Therefore, it was not surprising to discover that it was normal for them to visit restaurants weekly:

“I eat Arabic and foreign foods. Before immigration to Canada I had lived for a while in America. I finished the high school in America... We used to go out to the restaurant once a week with my family. And it was normal to eat fast foods.”

Participant 11 added that they would also eat out weekly even before coming to Canada. The participant indicated that they loved trying out new places and flavors back home:

“We used to go every weekend to eat out. We loved to try all new restaurants and different flavours also we were going to our local restaurant that served our traditional food for example Kebah/ kibbeh [bulgur, minced onions, stuffed with ground beef, pine nuts, with Middle Eastern spices - deep fried] and meat in dough...etc. in addition to fast-food, Italian, Chinese, Mexican...etc.”

Participant 13 explained that the Kingdom of Saudi Arabia had plenty of restaurants which they visited often, expressing that:

“We used to go to restaurants often, especially fast food ones, as you know how life is in Saudi Arabia and the availability of restaurants.”

Meanwhile, Participant 16 echoed the other participants' experience by sharing:

“Every week in Saudi. It was a must, all kind of restaurants.”

Finally, Participant 20 shared that they also visited fast food chains often. She highlighted the experience by saying:

“At least once per week. Mostly pizza, Mc Donald's, Burger King, and KFC.”

RQ2: Changes in the diets post-migration. Another category formed from the interviews was the discussion of the changes in the diets of the participations upon migration. Four key changes were then identified. These were: practicing healthier eating habits; going to restaurants more often; starting to limit Arabic food due to time constraints

of children in school (sandwich, cereal, fruits, vegetables, pizza); and cooking of packaged and frozen food due to availability and the lack of time. Meanwhile, only the themes that received more than six occurrences 25% and above are reported; themes with five occurrences or 21% and below are found in Table 5.3.

Table 5. 3. *Breakdown of the Results for Changes in the diets post-migration*

Themes	Number of Occurrences	Percentage of Respondents
Practicing healthier eating habits **Less frying in cooking their food	11	46%
Going to restaurants more often	11	46%
Limited Arabic food due to time constraints of kids in school (sandwich, cereal, fruits, vegetables, pizza)	11	46%
Cooking packaged and frozen food due to availability and the lack of time	10	42%
Mixing of different cultures in their daily food preparations	7	29%
Having just two meals a day	5	21%
Continuing their practice of consuming traditional food	5	21%
Using alternatives to acquire the similar taste of traditional food	4	17%
Accommodating the requests of their children (pasta, pizza, etc.)	4	17%
Preparing food from scratch	1	4%

Note: **sub-themes

Major Theme 5: Practicing healthier eating habits. Forty-six (46%) of the interviewed participants reported that the main modification in their diet was the practice of healthier eating habits, primarily by avoiding frying and fried foods. According to Rosenmoller et al. (2011), immigrants in Canada from China have experienced both positive and negative changes to their dietary habits. In Rosenmoller et al.’s (2011) study, a “reduced deep-fryer use” was also reported upon migration. This study indicated how immigrant mothers have a good knowledge of eating and preparing of healthy food.

Participant 2 conveyed that she has since reduced her frying habits from 100% to just 20% upon relocation. She shared that she now grills, boils, and steams their food to reduce frying. The participant then explained:

“No, this has changed. I reduced from 100% to 20%. Instead I use a toaster oven or the grill. We reduced the amount of oil for our health. In Turkey, I focused on vegetables, beans, and 30% frying. After arriving to Canada, I’ve replaced frying with steam cooking, oven, and removed the oil leaving only natural fat.”

Participant 7 added that:

“Currently, I never deep-fry; for potatoes or anything else, I use the oven and pressure pot only.”

Participant 8 also indicated that it was difficult to avoid cooking with oil/Ghee when she was still in Egypt:

“I would say that here eating is healthier, because in Egypt it was impossible for me to cook without Ghee; all our cooking contained animal ghee and was full of fat.”

Participant 9 echoed that it was difficult to stop deep-frying in Egyptian cuisine; however, she had to adjust and stop this upon migration:

“in Canada, I only prepare the Egyptian breakfast in the weekend and since I came here I stopped deep frying.”

Finally, Participant 24 emphasized that upon migration, she had to adjust the preparation methods of their traditional cuisines. She shared that she has since stopped deep frying and using Ghee; she added that she also became more health-conscious:

“Here we do not follow that much our traditional recipe of preparation; I changed the complicated method for preparation some of our food. I stopped deep-frying here and using Ghee.”

Indeed,

“Here I found a lot of healthy items that helped me in adapting a new method of food preparation. Also, I started reading a lot about healthy food; healthy fit, healthy living style so all of these are aspects which impacted on my food choices. Moreover, I start thinking about electricity that is expensive here so I start using the pressure pot that does not take more than an hour to cook the food. Slow cooker is an amazing idea and I learned here.”

Major Theme 6: Going to restaurants more often. Another significant change discovered was the finding that the participants started going to restaurants more often. eleven of the 24 participants (or 46% of the sample) shared the said finding. This finding highlighted Satia et al.’s (2000) report that immigrants may start to be accustomed to the more convenient selections of pre-packaged meals and fast food. In this case, the participants of the present study mostly specified that the main reason for going to restaurants more often is to adhere to the requests of their children.

Participant 3 shared that upon their transfer to Canada, they have also started going to restaurants especially during weekends. She then explained that she has never been a fan of eating out; however, she and her husband had to adjust for their children, saying:

“After immigration to Canada we go to restaurants. More often we go out on weekends and it’s different in the summer because we get out

anytime...BTW I don't eat junk food such as McDonald's or Pizza Hut. But my children and my husband go there to eat."

Participant 5 echoed that the decision to eat out was because of their children:

"here we go out once a week because kids want that. and we do not have any problem of eating all types of food."

Participant 9 who was from Egypt explained that she and her husband also do not eat from or support fast food chains due to unavailability of these kinds of food in their rural city back home; however, they had to accommodate their children's requests:

"In Canada, almost every weekend we go to eat out, for example, the Greek restaurant or fish and chip restaurant or Iranian-Afghan or Bengali restaurant, also it is possible to eat from McDonalds because my children love poutine and chicken nuggets (Happy Meal), but me and my husband we do not eat McDonalds or pizza from store. We prefer homemade pizza and my kids as well."

Participant 15 stated that her children had started to request fast food and followed them accordingly:

"It depends; children have an inclination to Popeyes. They like it. They also like chicken and pizza. There is also hamburger. We like Burger King not Harveys."

Finally, Participant 22 stated that they try the different restaurants available to them. She explained that Non-Halal is accepted as long as they do not contain pork, stating:

“We go to all restaurants Arabic and western restaurants in Canada. Every time we choose something new and we may eat non-halal food as long as it does not contain pork or alcohol.”

Major Theme 7: Limited Arabic food due to time constraints of kids in school (sandwich, cereal, fruits, raw vegetables, pizza). The analysis also led to the discovery that mothers had to shift to foods that were easy to prepare and consume due to the time constraints experienced by their kids in school also due to children’s preferences to consume food in Western style. Again, the perception was shared by 11 of the 24 participants (or 46% of the sample). Story et al. (2002) previously reported that the children’s social and physical environment affects their dietary behaviors. In this case, the mothers had to adjust the diet of their children to accommodate the school environment.

Participant 1 explained that her kids usually have sandwiches, fruits, and vegetables in school.

“These meals are easy to prepare and consume as kids also do not have the time to finish the Arabic meals given the limited break times that they have.”

Continue participant 1 her kids take a lunch box for two nutrition breaks, of which one is lunch and other is called a snack time.

“The box may contain cheese or turkey or lebna sandwich (no Arabic meal in school because kids want to eat quickly); also, fruits or vegetables. Every day they have different types of food.”

Participant 3 added that her kids also usually consume simple and ready to eat meals when in school, she gave several examples such as:

“Kids like to eat like their friends at school so their lunch box could include

cheese, thyme sandwich with fruit, vegetables, granola bar, juice, cereal, croissant. Sometimes they take hummus dip with carrot/pita bread. In addition, they have one day to eat pizza at school (pre-purchased).”

Participant 4 echoed that kids want their meals to be easily consumable when in school:

“My young kids take snacks and lunch to school. For snack time, my young kids eat an apple and granola bar. Then during lunch, they eat a sandwich.”

Finally, Participant 5 stated that she has also stopped sending her kids with Arabic food or meals. Upon migration, she has shifted to sandwiches and other snacks that are easily available and consumable:

“Yes, I stop sending with them Arabic food instead I send cheese sandwich, cold meat/chicken sandwich, tuna sandwich, pancake, waffles, sometimes salad and they have one day a pizza at school. Also, fruits and vegetables, granola bar oat, cereals...”

Minor Theme 1: Cooking packaged and frozen food due to availability and the lack of time. Another substantial change was the practice of cooking packaged and frozen food due to availability and the lack of time to prepare fresh foods. The finding was substantiated by Satia et al. (2010) through the statement that, although traditional foods may be available to the immigrants, two other factors must be considered. The factors are the price of the goods and the time needed to prepare them. In this study, availability and time were the main hindrances for the 10 participants (or 42% of the study sample).

Participant 6 admitted that her manner of food preparation has also changed due to the lack of time to prepare as well as use fresh ingredients, stating:

“The way of preparing foods changed due to lack of time. I used to cook different types of foods. But now there is no time for preparing varied foods because of work... Now I cook and store foods in the freezer, or I use frozen packages for quick cooking. Also, I use cans such as beans, chickpeas...etc.”

Participant 7 shared that she also always purchases frozen vegetables as in Canada, she observed that fresh vegetables are not available. She then explained:

“My kids like rice and meat a lot, and chicken, so after we came here, this is what we eat almost every day and of course no Arabic fresh vegetables are available so I am always buying frozen veggies.”

In addition, Participant 8 highlighted how their eating habits chiefly changed because of the ingredient or food availability in the Canadian market:

“Our eating habits have changed according to what is available in Canadian markets; most Arab vegetables are frozen, while in Egypt it was impossible to buy frozen vegetables, only fresh.”

Finally, Participant 12 stated that another main influence is her children’s food preference. In addition, fresh vegetables are almost impossible to find:

“Actually, our food has changed after migration because my kids like grilled meat, and chicken, rice and fries so after we came here, this is what we eat almost every day and there are no fresh Arabic vegetables such is Okra so I am always buying frozen veggies.”

RQ3: Practices on daily food preparation upon migration. The third category discussed the mothers’ perception on their daily food preparation upon migration. From

the phenomenological analysis of the interviews, three key perceptions were discovered from seven themes again emerged (see Table 5.4). The practices of reading food and nutrition labels, consuming easily prepared meals due to the lack of time and continuing to prepare traditional food were covered as main themes; meanwhile, four other minor themes were also discovered.

Table 5. 4. *Breakdown of the Results for Practices on daily food consumption upon migration*

Themes	Number of Occurrences	Percentage of Respondents
Needing to read food and nutrition labels for health and content reasons	18	75%
Consuming easily prepared meals due to the lack of time	14	58%
Continuing to prepare traditional food	6	25%
Cooking based on the desires and requests of her family	5	21%
Needing to consume Halal-certified food products	3	13%
Moving of meal times due to work and school schedules	1	4%
Adding new dishes to their daily meals	1	4%

Major Theme 8: Needing to read food and nutrition labels for health and content reasons. Eighteen of the 24 participants (or 75%) indicated that upon migration, they have learned or, for some, strengthened the need to read the food and nutrition labels for two reasons. Participants stated that they found the need to be aware of the food labels to know the content of the food products that they are buying; and to ensure that they are Halal-approved.

Participant 6 explained that she reads all the food and nutritional labels to ensure that the food products are Halal-approved and can be consumed by Muslims, stating:

“I read everything, but the most important thing I make sure that it is containing Halal ingredients or things Muslims can consume.”

Participant 7 added that as a doctor, she is very much aware of the importance of reading the food labels. She shared that it has become a habit to do so to know the calories and other contents of the food products:

“I must read everything, and because I am a doctor, I am interested in reading the components and the calories especially with my daughter’s issue with obesity, for example I stopped buying juices for school and replaced it with water because of the high sugar content.”

Participant 8 stated that she has also become more knowledgeable of food labels and healthy ingredients upon their move to Canada. She added that it is helpful to know the content of the food products before purchasing them:

“Yes, I read everything on the box before buying, and I care that the sugar ratio is low for the kids. I learned to read them here in Canada, from programs I was following with my kids in the early learning schools.”

Participant 9 echoed that she also learned how to read the food labels in Canada. For participant 9, the practice helps in cooking and staying healthy:

“I learned to read them here in Canada, from a program at the church for cooking healthy by using olive oil, brown rice and using raw veggie/fruits as well as I was attending a program with my kids in the early learning schools.”

Meanwhile, Participant 10 does not strictly read the food labels. However, she finds it important to read the contents at times to know if they are Halal-approved or not:

“Frankly I don’t read them, only on chips and chocolate because of calories and I sometimes read the contents because of the gelatin/pork.”

Also, participant 11 mentioned that:

“I am a doctor and I learned about reading the nutrition value long time ago and before migration. Yes I do read and care about everything regard ingredients, vitamin, OMG, calcium, fat, sugar, salt and calories.”

Participant 13 admitted that for her, Halal certification is the most important:

“Frankly, the reason I read the food ingredients is not related to health, but to make sure whether it is halal or not.”

Finally, Participant 15 indicated that she reads the packages to compare the products carefully:

“Yes, I have the knowledge background. I was referred by my doctor to the nutritionist. I have to read the information carefully not only the calories. I read the information carefully to compare different packages.”

Minor Theme 1: Consuming easily prepared meals due to the lack of time. fourteen of the 24 participants 58% of the total population reported that they started consuming easily prepared meals due to the lack of time to prepare from scratch which was their traditional food preparation method. Time was a constant influence of the change in eating habits by the immigrants as previously reported in the earlier findings as well as the literature.

Participant 5 stated that her mother taught her the traditional methods of food preparation. However, upon migration, she realized and learned many ways of cooking which are helpful as they take less time. She shared:

“Now there are easier and quicker ways. I mean when I cook here I take less time than what my mother used to take in Syria for the same meal.”

Which means I do not have to cook from scratch since most foods are available such as frozen food and canned.”

Participant 6 echoed that upon migration, time has been very vital. Therefore, she has stopped following the traditional method as she admitted that she does not have the time to do so given her work responsibilities, explaining:

“Yes, we eat a main course of hot meal at home; usually between 4:30 - 6:30 pm. I cook Iraqi food but not similar to the original method because I do not have enough time to go through the old-style preparation as well I come back from my work tired and hungry too. My kids love Arabic food (Iraqi) ... they do not like any other food flavor. Our Iraqi food is mostly rice served with chicken or meat and green salad on the side.”

Meanwhile, Participant 8 stated that cereals and milk are their daily staples as they do not take much time to prepare:

“After immigration, we started eating cornflakes with milk for breakfast daily, because it doesn't need preparation and we all like it.”

Also, Participant 11 explained that all their meal times have been affected as well because of their schedule. In addition, they have also started to consume easy and quick to prepare foods, saying:

“We still eat the same for breakfast but maybe the kids prefer to eat cornflakes, cereals, pancake and milk but that food was available at home and we were eating them but not as much as here. We do not have dinner after migration because no time but we may eat fruits and yogurt or milk.”

Participant 24 stated that their meal times and content have also changed upon migration. She stated that their breakfast has changed to English style with cereals and other easy to prepare meals. In addition, she added that they now have very little to no time for dinner, describing:

“Our breakfast is changed to eat more cereals and English food style due to the availability of cereals and other western food at a cheap price. Also, the flavour of this food such as waffle, pancake, cereal is yummy.”

Minor Theme 2: Practicing the same food preparation and consumption. The second minor theme that emerged was the experience of practicing the same food preparation and consumption. The theme can be considered as a discrepant case, considering the main finding of the third research question. The theme was shared by six participants (or 25% of the study). Kaiser et al. (2001) explained that the lack of change in the food preparation and consumption upon migration is indeed possible. They specified that maternal acculturation is the key factor if the foods prepared and served to their families will be influenced by their migration. However, Arab Muslim female immigrants to Canada strive to maintain their traditional eating practices and food choices. Participants reported that traditional foods were available at supermarkets, but they expressed concerns over the cost of food and the general lack of flavor and freshness.

Participant 2 stated that their daily food habits are still the same. The only difference was that in Turkey, they had more and fresh vegetables, sharing:

“It is the same; red meat is twice a week. In Turkey, we had more vegetables. The children were young there, so they did not consume much meat. However here after they have grown up they come back from school

hungry, therefore, I prepare chicken breasts or legs three to four times a week. Now God bless, they are young people who need to grow. They love chicken.”

Participant 13 simply shared that traditional food is still served to her family, expressing:

“I still follow the same method in eating and cooking, Traditional food.”

Finally, Participant 16 reported that despite learning new dishes, she is committed to retain the traditional and main dishes:

“It is the same as back home. I have learnt from a Ukrainian neighbor some new dishes and some other dishes from an Italian neighbor some other dishes. The main dishes, however, are the same.”

RQ4: Traditional foods considered to be important to keep. The fourth category was the exploration on the types of traditional foods considered to be the most significant to retain and why. Two underlying perceptions were generated upon analysis. Participants identified that they still prepare stuffed vegetables and keep the other traditional food practices alive in their homes, even upon migration. Table 5.5 contains the complete breakdown of the findings.

Table 5. 5. *Breakdown of the Results for Traditional Foods Preparation*

Themes	Number of Occurrences	Percentage of Respondents
Preparing stuffed vegetables	11	46%
Still trying to prepare traditional foods	11	46%
Stopped preparing traditional foods	3	13%
Combining traditional food with newer styles	2	8%

Major Theme 9: Preparing stuffed vegetables. Another key finding was the preparation of stuffed vegetables with 11 occurrences (or 46% of the total sample

population). As discussed in the literature, Krtizman (1999) stated that Arabs tend to strongly maintain their dietary habits. In this case, the participants recounted the importance of preparing stuffed vegetables for their families.

Participant 1 stated that she prepares stuffed vegetables as her family enjoys this traditional food in particular. She shared:

“For example, Kabssa [cooked rice with meat or chicken and special spice], Keba, and stuffed vegetables, but here is the issue: sometimes one can’t find the small zucchini so we will have to cut the big ones and stuff halves with meat or without. So, the taste wouldn’t be the same but one would have made the recipe and the family still enjoy stuffed vegetables. These are the dishes but not every week. You see. Meals like peas, and beans are highly liked. The same food but you make different recipes and not repeat cooking the same food every week.”

Participant 2 expressed that despite her schedule, she still tries to prepare stuffed vine leaves. The participant expounded:

“Stuffed vine leaves. No matter how busy I am. We make it in summer and winter.”

Participant 15 echoed that despite the difficulty to prepare, she ensures that she still serves traditional food in Canada, saying:

“Stuffed vine leaves it is difficult but I make it though. However, I prepare all of our traditional food here.”

Major Theme 10: Still trying to prepare traditional foods. Another finding that emerged was the experience of still trying to prepare traditional foods with 11 occurrences

(or 46% of the total sample population). This perception can be attributed to the decision of the mothers to hold and retain their food practices to keep the familiarity of culture and traditions alive even after migration (Marquis & Shatenstein, 2005). The participants answered in a more general manner but highlighted that they “*try*” to prepare as much as possible.

Participant 6 simply stated:

“I am still trying to prepare traditional foods.”

Participant 7 shared that she still prepares just one recipe; however, time is again an issue:

“Maybe just one recipe of our traditional foods I prepare, the other ones take a very long time so I stopped making them.”

Meanwhile, Participant 10 was confident in sharing:

“I make all our traditional food any time we want.”

Participant 13 added that indeed, she also prepares all the traditional food that they have practiced even before coming to Canada:

“I still prepare all of them.”

Finally, Participant 18 shared the following tradition dishes:

“Molokhia (is the leaves of Corchorus olitorius), maftul (known as Palestinian couscous, made of wheat), mansaf, vine leaves, stuffed zucchini, and pie with meat or thyme.”

RQ5: Challenges faced in relation to food consumption. The fifth and final category established was the challenges faced by the Arab Muslims in Canada about their food consumption. From the analysis, two major themes were discovered and three minor

themes. The issues pertained to the quality of food products and the price of Halal food products in Canada. Table 5.6 contains the complete summary of themes with their number and percentage of occurrences.

Table 5. 6. *Breakdown of the Results for challenges of food choices in Canada*

Themes	Number of Occurrences	Percentage of Respondents
Quality of food products	18	75%
**Presence of chemicals and hormones on food products		
**Taste is different from their country of origin		
Halal food products are more expensive	13	54%
No challenges experienced; healthier lifestyle	6	25%
Different food taste, psychological effect	4	17%
Lacking the time to prepare for traditional food	3	13%

*Note: **sub-themes*

Major Theme 11: Quality of food products. Eighteen of the 24 participants (or 75% of the sample) reported the challenge of the difference in quality of food products. Participants explained that the quality pertained to the taste of food being different, and the presence of chemicals on their food products such as fruits and vegetables. Due to the quality of products, participants found it more difficult to fully match the taste of the food back home to their current homes.

For Participant 1, the quality of food is entirely different from their food products in Syria. She even gave an example where:

“No, it is totally different because tomatoes are not the same. When we went to Syria you know how much my children enjoyed them? They held on to the tomatoes and smelled them. Such scent does not exist here. They were laughing. Now one of the boys is there and he asked his auntie tell me the truth is this really a cucumber and this is a tomato? I said you

laughed at my children because you could not realize that the smell and the taste are totally different. There are dishes that differ at the meat level.”

Participant 7 shared that she does not eat Arabic food outside of her home as the food is “*horrible*”. In addition, she shared that the taste is just different from home:

“Do not eat Arabic food in Waterloo because the flavour of Arabic food is not good and tastes different than real Arabic food. However, Waterloo has many Arabic restaurants but from my own experience the taste is really horrible.”

Participant 8 described how during her first year in Canada, she had a difficult time adjusting to the food taste. She added that the food products are not as good as the ones back home:

“Taste is different. Here everything is different, the first year I experienced difficulty because of change of food taste, but now it's better. Cucumber here isn't tasty; vegetables and fruits have different taste.”

Finally, Participant 19 also shared how the food taste is different, especially Canada’s fruits and vegetables:

“Yes, the flavour of food is different. Food here especially fruits and vegetables look like food but no taste such as an apple looks like apple but without flavour or taste of the real apple.”

Another observation of the participants was the presence of chemicals and hormones in the food products available at the market.

Participant 3 pointed out that the difference in food taste was from the chemicals being injected to the products:

“Fruits and vegetables taste different here. But I don’t know if this change is all over the world because of the chemicals and hormones (GMO).”

Participant 4 explained that companies put chemicals in order for the appearance of the fruits and vegetables to be appealing; however, the quality in general is affected:

“Foods are frozen and come from the freezer. Or they are half cooked and aren’t fresh. Maybe most of food contains GMO that make them big and nice but not tasty or no flavour sometimes.”

Participant 5 added that:

“Foods here are less healthy than foods in Syria. Here, foods are full of hormones. Foods are implanted in plastic farms.”

Participant 7 reported that the original taste of the food is modified because:

“Many of local products contain hormones or GMO, which impact on the original flavor of food.”

Meanwhile, Participant 8 simply shared:

“Here things available are unnatural, mostly containing preservatives or hormones to withstand long periods of shipping and storage.”

Finally, Participant 9 echoed the previous participants and shared her perception that:

“The change in taste is due to products containing preservatives or genetically modified, and food is mostly frozen. Also, as I told you that I am

using alternatives to our original products so it might impact on the flavour of food.”

Major Theme 12: Halal and Arabic food products are more expensive. Another challenge shared by the participants was the price of the Halal food products. As all participants relayed the importance of Halal food for religious purposes, they also indicated that the unaffordable prices often become a hindrance for them. This finding received 13 occurrences (54% of the total sample interviewed). In the literature, this factor was tagged as the socioeconomic influence of the migration to the food habits of the immigrants. Ricciuto at al., (2006) explained that the income of the immigrants may indeed affect their food purchases and choices.

Participant 1 stated that all food products are available in Canada. However, the main issue is the price range of such products, saying:

“Yes, it is available but it is more expensive. This puzzles me; both are chicken only because this has halal on it is more expensive. Similarly, is meat, it is more expensive when it has halal tag on. This is a cow and this is a cow.”

Participant 2 echoed the enormous/massive difference between Halal and Non-Halal products, sharing:

“The first three months this winter prices are raised which resulted in a budget deficit. Before I used to pay \$70 or \$80. Today, I pay more than \$100.”

Participant 4 added from experience that prices should be reduced for her to access and purchase them. She explained how both the Arabic and Canadian stores' market prices are too high for her preference:

“The food prices from Arabic stores or Canadian supermarkets are high. In general, all the basic items used for Arabic cooking are expensive. Their prices should be reduced so I may buy them. Everything is different: the taste of food, the time of preparation and the materials/ingredients that is used to prepare our food.... many factors impact on our food preparation.”

Finally, Participant 16 shared that her issue is the price of the fresh products:

“Because I can't afford to buy fresh. Thus, I must buy frozen.”

Minor Theme 1: No challenges experienced; healthier lifestyle. The second minor theme discovered was that 6 of the 24 participants did not experience any challenge or issue in their food habits and consumption. In fact, they even found that their migration and current food practices are healthier. As earlier explained, immigrants both experience positive and negative food habit changes upon migration (Rosenmoller et al., 2011). In the case of the six participants, the migration allowed them to improve their dietary habits and choose the more favorable changes upon transition.

Participants 8 and 11 both believed in the quality of food products in Canada. They both stated:

“Here the fertilizers and chemicals are better and controlled not like in our Arab countries. Here, for example, farm products are much better than supermarkets.”

Participant 13 also added that Canada's food safety practices are much more

secure and safer as compared to her home country:

“I think food here is controlled and I feel more secure with what I buy, compared to my country; for example, back home I was always afraid to eat outside, especially salads, I was always afraid of Hepatitis and other diseases, but here in Canada I was surprised that I can normally eat these things outside without fear, because it is cleaner; also, a while before my confidence increased after they closed a juice cocktails shop in Toronto.”

5.3.2 Demographic Variables Influencing Arab Immigrant’s Food Choices

(combining qualitative with quantitative analysis)

The next analysis was how the qualitative findings varied with demographic factors, and whether factors such as length of stay in Canada, mother’s work status, etc., are associated with the major themes. This was done by examining how the proportions reporting on selected themes differed when the sample was split into two subgroups (longer/shorter stay in Canada, higher/lower income for example) or into three subgroups (mother worked full-time/part-time/in the home). Since the sample is small, no formal significance tests of association were undertaken. Reported below are those cases where the results were suggestive of a possible association, which were then combined into two overarching themes.

- ***Overarching theme1:*** (RQ2) Changes in the diets post-migration and *Major theme (5) Practicing healthier eating habits/less frying; Major theme (6) Going to restaurants more often* linked to (RQ3) Practices on daily food preparation upon migration and *Major theme (8) Needing to read food and nutrition labels for health;* those themes and

questions also connected to four of the participants' demographic variables, namely mother's occupation; annual income; length of residency in Canada; and children's age.

- **Overarching Theme2:** (RQ4) Traditional foods considered to be important to keep and *Major theme (9) Preparing stuffed vegetables; Major theme (10) Still trying to prepare traditional foods;* (RQ1) Dietary habits pre-migration and *Major theme (4) Frequent visits to fast food chains/restaurants;* and (RQ2) *Changes in the diets post-migration with Major Theme (6):* these were connected to mothers' occupation; children's age; and city of residence.

Overarching theme1: Practicing Healthier Eating Habits. Four of the demographic variables were associated with aspects of this overarching theme, namely mother's occupation, household income, length of stay in Canada and children's age.

This study had three different occupational groups out of the 24 Arab mother immigrants. Housewives (n=7; 29%), part time workers (n=7; 29%), and fulltime workers (n=10, 42%). The analysis above indicated how mother's awareness of healthy eating increased where 46% of the interviewed participants reported that the main change in their diet avoiding frying and fried foods (*RQ2 & Major Theme 5*). Analyzing the interviews using demographic factors showed that reducing frying was more common among mothers who were housewives or who worked full-time, and less common in those who worked part-time. Four of the 7 mothers who did not work outside the home were frying less or not frying foods after migration and one respondent stated:

“Back home cooking would take a whole morning, here it is quick; one hour at max. Here, I use the pressure pot. I never fry my food rather I spray with oil and broil in the oven”.

Some of the mothers who did fulltime work (4 out of the 10) were frying less or not frying foods after migration as one respondent stated:

“Currently, I never deep-fry; for potatoes or anything else, I use the oven only.... unfortunately, before immigration, we used to eat a lot of fried stuff, especially when the maid was cooking, she used a lot of salt in general, and generally the food was not healthy.”

However, only 2 of the 7 mothers who did part time work spoke of reducing frying: most continued frying and one participant stated:

“The same before and the way of preparing foods not changed. I am still following the old method of preparation our food such as deep-frying..... before I used to deep fry a lot in (Ghee/fat) but now I am using oil or vegetables oil.”

A similar pattern relating to mother’s occupation emerged regarding reading nutrition labels (*RQ3 & Major Theme 8*). Eighteen of the 24 participants (or 75% of the study sample) indicated that upon migration, they have learned or, for some, strengthened the need to read the food and nutrition labels for two reasons: 1) to be aware of the food labels to know the content of the food products that they are buying such sugar, fat, salt, vitamins, minerals, calories etc.; and 2) to ensure that they do not contain pork or alcohol, or they are Halal-approved. Both mothers who did not work outside the home (6 out of 7) and mothers who worked fulltime (8 out of 10) were more likely to read nutrition labels, facts and product ingredients.

As one participant explained:

“Yes, I read everything on the box before buying, and I care that the sugar ratio is low for the kids. I learned to read them here in Canada, from programs I was following with my kids in the early learning schools.”

But this was less practiced among mothers who worked part time (4 out of 7) as one participant echoed:

“My daughter and my children are used to reading labels, but I don’t read them because I don’t think I need to read as I don’t gain weight. My daughter is used to reading and she says that I gained weight. These foods contain high calories and fats.”

However, the proportion visiting fast food chains or restaurants (RQ2 & Major Theme 6) was more related to household income. Families who had income of \$50,000 or more increased their consumption of fast food or visiting restaurants after immigration

“When my son got sick and he was hospitalized we lived for months on fast food. In normal life, we would eat out every other week. Yesterday, I got them pizza. They also get pizza once a week in school. I do not allow them to eat meat outside. Halal or non-halal chicken yes, but never beef. I learned at school that beef here has high levels of E. coli and it is not healthy. My son loves Burger King, I switched to the halal Hero. They seldom get chicken nuggets. I prepare them at home.”

In comparison, the other group with lower household income remained as before migration, eating fast food or visiting restaurants only occasionally or once a month.

“Before migration we used to go there about 3 times per week. We did not have fast food restaurants. But we used to go to Iraqi restaurants to eat

grills by the sea. After migration, we go once a month because it is expensive; it costs about \$100 and the income is not enough.”.

Length of time spent in Canada was also related to concerns for healthy food, with more recent immigrants indicating greater attention to health. The sample was divided into those who had lived less than 10 years, and 10 or more years in Canada. Of participants who lived 10 or more years (on average 14 years) in Canada, 5 out of 9 mothers did read the nutrition facts and nutrition value/label on the products but 5 out of 9 continued deep frying their food as one participant stated,

“I still use the same old methods and deep fry when needed, otherwise the food does not taste good.”

Meanwhile, 13 out of 15 mothers who had lived between 5 to 8 years (on average 6 years) in Canada did read the nutrition facts and nutrition value/label on the products.

In addition, children’s age was used as a variable to find out more information. The results showed that families with children of various ages indicated the power of children on their family food choices such as, eating fast food, limitation of preparing traditional food and asking for Western style food (chicken nuggets, hotdog, pizza, waffle, cereals, raw veggie, grilled meat or chicken, pasta), one participant stated:

“But my kids like to eat burger, nuggets, hot dog and I never ever let them to eat it at home.”

Notably, 6 out of 7 mothers who had children all aged less than 10 years indicated more healthy food practices at home such as less frying, more reading of nutrition facts/labels but also more likelihood of visiting fast food/restaurants and expressing limitations of preparing traditional food. As one participant indicated:

“our food preparation been similar did not change that much but I start eating raw vegetables instead of cooking them and my son like this too. I also start cooking the food in the steam pot, which is healthy, and need less water.”

On the other hand, 12 out of 17 mothers who had at least one of their children age 10 years or above showed that they continued to fry food.

“yes, I am still deep-frying food in oil not “Margarine” and my kids love fries. However, currently my husband has angina, so I tried to make a healthy food for us but sometimes I have to prepare two different food for my husband and I and one for kids.”

Overarching Theme2: Factors Correlated with Continuing to Cook Traditional Foods and Children’s Experiences of Western Food. Three of the demographic variables were associated with aspects of this overarching theme, namely mother’s occupation, children’s age, and city of residence.

As mentioned earlier in this study, Arab Muslim female immigrants to Canada strive to maintain their traditional eating practices and food choices. They felt that traditional foods offered a link to their cultural identity and that, as mothers, they had an important role to play in feeding their families while maintaining cultural ties (*RQ4 & Major Theme 9,10*). However, there were variations, and two groups emerged: first a group who had either limited their efforts in preparing traditional food or were still trying to prepare traditional foods but by following easy recipes for preparation.

“After immigration, we try to cook Arabic foods as much as possible. But because of being in a foreign country and having friends of other cultures and Canadian friends, I learned non-Arabic foods from them. I can cook Chinese, Indian, Vietnamese, and Canadian foods.”

Another participant stated:

“After migration, I do not cook a lot of our Arabic foods. There are more varieties of other cuisine that my kids now order and ask me to prepare them some fun foods.....because kids said that our Arabic foods are not enjoyable in the way of serving or cooking. So, I make foods from different cultures.”.

The group who limited preparation of traditional food (8 out of the 24 participants, 4 out of 7 housewives, 2 out of the 7 part-time employees and 2 out of the 10 full-time employees) were also more likely to eat out more frequently as compared to those who continued to prepare traditional food (6 out of the 24 mothers). The group who reported limiting preparation of traditional food (8 out of the 24) almost all (7 out of those 8 mothers) more likely to report that their children impacted their food choices (Table 5.7).

“Back home the variety of vegetables is higher than here. It was easy to cook. Children back home do not have preferences, here the children like this and dislike that. Back home cooking would take a whole morning, here it is quick; one hour at max.”.

And the group who reported limiting preparation of traditional food were more likely to live in Waterloo 7 of the 8 whereas those who continued preparing traditional food included

almost all of those who lived in Mississauga (11 of the 12, plus 5 of the 12 who lived in Waterloo).

“I still cook Lebanese meals; however, you know we are open to other cultures. I frequently rely on frozen meals: chicken nuggets, fish fillet. I still do Lebanese meals: cooked vegetables, rice, and meat.”

Another said,

“My girls are in love with the Western food such as pizza, burger, steak but I do not prepare it for them and I am still cooking our Iraqi food and at the end after complaining they are eating it; no option.”

Moreover, some participants reported generally avoiding fast food before (RQ1 & Major Theme 4) and after immigration (RQ2 & Major Theme 6). However, some of them did not like the flavor and quality of food at Arabic restaurants described as “horrible” especially among Waterloo participants due to the limited number of Arabic restaurants compared to Mississauga where the availability of Arabic food sources is very wide. Participants’ reports that they frequently visited various fast food chains and restaurants even before relocating to Canada. Again, the theme was shared by 46% of the sample in Canada to show that participants started going to restaurants more often. However, the participants of the present study mostly specified that the main reason for going to restaurants more often is to adhere to the requests of their children.

Fifteen out of these 24 mothers (5 out of the 7 housewives; 4 out of the 7- part time; and 6 out of the 10 full time mothers) were influenced by their children and were more likely to experience limitations in preparing traditional food. The three groups had similar rates of visiting fast food/restaurants. However, mothers who were not working had

increased in their rate of visiting fast food/restaurants after immigration, while the other participants responded showed that they continued visiting fast food/ restaurants at a similar rate to before immigration (6 out of the 7 housewives; but only 2 out of the 7-part time mothers; and 1 out of 10 full time mothers increased going to fast food restaurants).

A mother shared that upon their transfer to Canada, they have also started going to restaurants especially during weekends:

“After immigration to Canada we go to restaurants. More often we go out on weekends... BTW I don’t eat junk food such as McDonald's or Pizza Hut but my children and my husband go there to eat.”

Overall, the analysis led to the realization that 33% of mothers had to shift to foods that were easy to prepare and consume due to the time constraints experienced by their children in school, their own work, and also due to children’s preferences to consume food in Western style. A majority (54% of them) indicated that upon migration, time has been very limiting and there is not enough time for preparing traditional food. Figure 5.2 included a summary of the research questions, key findings, 12 major themes and two of overarching themes.

Table 5 7. Breakdown of Overarching Themes 1&2

Characteristic	Mother status			Family income		Length of time in Canada	
	N=7 Housewives	N=7 Part-time	N=10 Full-time	N=15 ≤\$50.000	N=9 >\$50.000	N=15 <10 years	N=9 >10 years
<i>Overarching theme 1: practicing healthier eating habits</i>							
Frying less	4/7	2/7	5/10	7/15	4/9	7/15	4/9
Reading Nutrition Labels & more	6/7	4/7	8/10	11/15	7/9	13/15	5/9
<i>Overarching Theme2: Factors correlated with continuing to cook traditional foods and children's experiences of western food</i>							
Limited Traditional Food	4/7	2/7	2/10	5/15	3/9	4/15	4/9
Increased Visiting Fast Food / Restaurants	6/7	2/7	1/10	4/15	5/9	5/15	4/9
Children Influencing	5/7	4/7	6/10	9/15	6/9	9/15	6/9

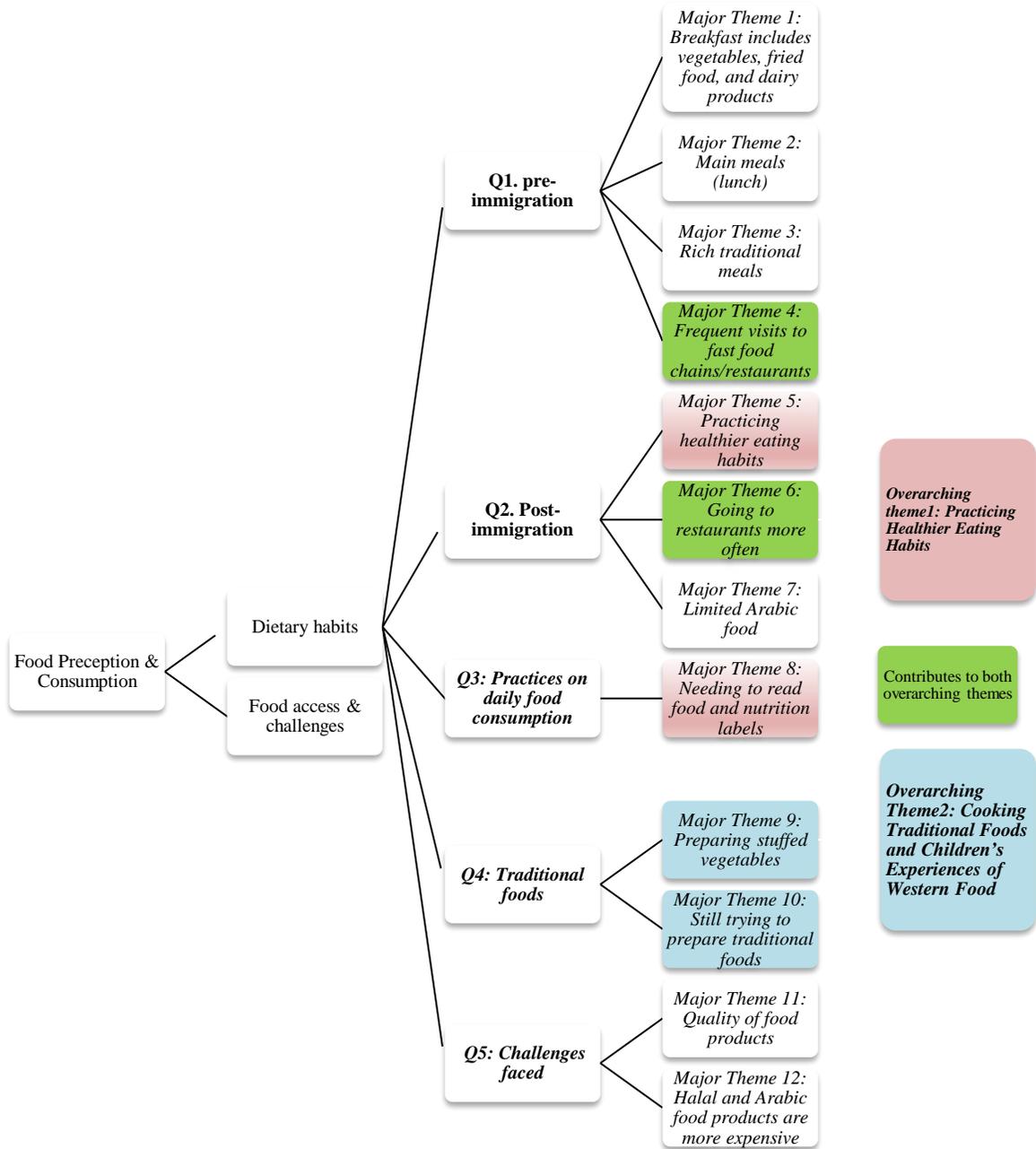


Figure 5. 2. Summary of the research questions key findings and overarching themes

5.4 Acculturation Survey Results

The acculturation survey results are presented in Table 5. 8. The Likert-type format scale was followed which ranged from 7 (strongly agree), 6 (agree), 5 (agree somewhat), 4 (neutral), 3 (disagree somewhat), 2 (disagree), to 1 (strongly disagree). On the first four questions, the higher the score, the less acculturated the mother (note that two of the questions are reverse-coded to fit with this pattern). The first question of the acculturation survey was the preference of living in an Arab country. The 24 participants reported a mean of $M= 3.9$, $SD= 1.2$ which indicated that the immigrants "neither agreed or disagreed" as to whether they liked to live in an Arab country. The second question was the inquiry if most of the participants' friends are Arabs. From the survey, it was found that the mean of the responses was $M= 5.3$, $SD= 1.3$ which pertained to the result that participants "somewhat agreed" that majority of their friends belong to the Arab community. Higher scores on the second set of four questions indicated that mothers were more integrated into Canadian society (again, one question was reverse-coded). One question was if the immigrants mix equally well with Canadians and Arabs. It was then found that the average result was $M=4.9$, $SD= 0.97$ which implied that they "somewhat agreed" that they interact and intermingle well with both Canadians and Arabs. When asked if they had an equal and at ease socialization with Arabs and Canadians, participants' responses had a mean of $M=5.6$, $SD= 1.3$ which indicated that they "somewhat agreed or agreed" that their socialization was balanced between the communities. Finally, a mean of $M= 5.6$, $SD= 1.1$ was again gathered when asked if they had many Arab and Canadian friends.

The acculturation survey contained the two subscales of: (1) separation vs. assimilation subscale; higher scores in this subscale indicate that the participants are less

assimilated into mainstream Canadian society; and (2) integration vs. marginalization subscale where higher scores indicate that participants mix equally well with both groups and are equally at ease socializing with either Arabs or Canadian. From the survey, the mean reported on the first subscale was $M=16.5$, $SD= 2.9$; possible scores range from 4 to 28 which indicated an above average socialization and interaction with other Arabs. The result can mean that the participants are somehow less assimilated into the general Canadian society. This subscale had internal reliability coefficients or Cronbach alphas of 0.47 that suggested unacceptable internal consistency or reliability of the subscale (George and Mallery, 2003). Meanwhile, the second subscale was the integration vs. marginalization. From the survey, it was discovered that a mean of $M= 22.0$, $SD= 3.3$; possible scores ranged from 4 to 28 was reported by the participants. The measured high score can support the claim that participants mix or interact equally well with both groups of nationalities and communities. For example, the mothers were equally at ease with Canadian and Arab friends (Table 5.8). This subscale had internal reliability coefficient or Cronbach alpha of 0.65 suggesting a borderline acceptable internal consistency reliability of the subscale.

The Male Arab-American Acculturation Scale (MAAS) was designed to measure acculturation of male Arabs who had being living in the United States. The items of this scale were designed to measure social ability, ease of communication and socializing among participants as Barry (2005). In terms of the reliability of the MAAS, Barry (2005) found that the separation/assimilation and integration/marginalization scales had internal reliability coefficients or Cronbach alphas of 0.71 and 0.73 (for male Arab Immigrants who had lived in the United States), respectively and Al-Omaria & Scheibmeir (2009) found

that overall internal consistency reliability coefficients for the separation/ assimilation scale was 0.54, and 0.73 for the integration/marginalization scale (for male Arab Immigrants who had lived in the United States) while the internal consistency reliability coefficients for the separation/ assimilation scale was 0.55, 0.75 for the integration/marginalization scale (for female Arab Immigrants who had lived in the United States). Tami (2012) was using the same scale of *The Male Arab-American Acculturation Scale (MAAS)* to measure acculturation among female Arab Americans and found that the separation/assimilation and integration/marginalization scales had internal reliability coefficients or Cronbach alphas of 0.51 and 0.68, respectively. Thus, our results are similar in that the integration/marginalization scale was the more reliable of the two. However, in the current research the MAAS was translated to Arabic for accommodated participants comfort. The translation from English to Arabic might cause the lower result of internal reliability coefficients or Cronbach alphas since the validity of the scale not tested on Arabic yet. Also, the scales for Arabs immigrants in the US might not be as appropriate for Arab immigrants in Canada.

Moreover, the result indicated no correlation ($r = -0.03$) between the two subscales, separation vs. assimilation and integration vs. marginalization among the participants ($n=24$). The correlation is not statistically significant at 5% level. Notably, the internal reliability coefficients or Cronbach alphas of the subscales were lower than the previous researcher finding, and this was expected to be due to the original design of the Male Arab-American Acculturation Scale (MAAS) to measure attributes of male immigrants who lived in the United States. However, Tami (2012) also was using the same scale i.e. the Male Arab-American Acculturation Scale (MAAS) to measure acculturation among

female Arab Americans who lived in the United States and had lower internal reliability coefficients or Cronbach alphas compare to the studies for men (Barry, 2005; & Al-Omaria & Scheibmeir ,2009).

Table 5.8. *The Male Arab-American Acculturation Scale (MAAS), Means, Standard Deviations of Arab immigrant mothers in Canada (n=24)*

Items	M	SD	Participant %
Subscale 1: Separation vs. Assimilation			
I would much prefer to live in an Arab country	3.9	1.3	25%
Most of my friends are Arabs	5.3	1.3	67%
I behave like Canadians in many ways ^R	3.5	1.1	8%
Generally I feel more comfortable around Canadians than I do around Arabs ^R	3.9	1.2	25%
Subscale 2: Integration vs. Marginalization			
I mix equally well with Canadians and Arabs	4.9	1.0	58%
I am equally at ease socializing with Arabs and Canadians	5.6	1.3	75%
I have many Arab and Canadian friends	5.6	1.1	83%
I have a lot of difficulty making friends ^R	5.9	1.3	83%
R: Items are reverse scored. M: Mean; SD: Standard deviation. MAAS items are scored on a scale from 1 (strongly disagree) to 7 (strongly agree). % are the percentages who are separated (score 6 or 7 on first four questions), or integrated (score 6 or 7 on second four questions).			

Overall, the result showed that *The Male Arab-American Acculturation Scale (MAAS)* works less well for female Arab immigrants in Canada. The researcher would point out that there are differences between the method of acculturation between Canada and

America, in which Canada is the one of the first countries to move towards becoming officially multicultural and involves social/racial equality and acceptance of religious and cultural differences. In contrast, the United States describes their society as a melting pot which is homogenous, in other words assimilation to the American society is paramount.

5.4.1 Observations Regarding Association Between the MAAS Scale, Demographic Characteristics, and Food Choices

Table 5.9 summarizes whether the two geographic samples Kitchener/Waterloo/Cambridge and Mississauga were significantly different. The results showed that the two geographic subsamples were very similar on the demographic characteristics examined, namely age, length of time in Canada, income, number of children, work status. They also had very similar scores on both the MAAS subsamples scale. Accordingly, the analysis continues below using the whole sample of 24 and does not present separate results for the two different areas.

In analyzing the effect of income, we note that although family annual income varies as a 50k income for a family of three is really different from 50k income for a family of 5 or more. In this study the income data were not exact (participants were not comfortable in revealing exact amounts) so the income per capita calculation was not made.

It was noted that integration/marginalization was somewhat correlated with the length of time that people in the three categories had been in Canada. All but one of marginalized group scoring less than 19 out of 28 on the subscale had been in Canada between 5 and 7 years, on average 6.8 years and SD= 2.7. The integrated group scoring 25 or more out of 28 had been in Canada 5-23 years, on average 12 years and SD= 6.8; and the middle group had been in Canada 5-18 years 10.6 on average and SD= 4.5 – therefore,

staying longer appears to be associated with greater integration. Notably, the researcher had an observation about how comfortable the mothers were in English which probably also is a factor. Those who have been here a long time but who still don't speak good English find it harder to integrate. Those who have arrived recently but speak good English find it easier to integrate. However, the score on the second sub scale separation/assimilation did not have any specific association with length of stay. The 24 participants reported being well adjusted and integrated into the Canadian society with the mean of 22.04 out of a possible 28. It can then be supposed that the mothers were able to survive and adjust to the new culture despite the challenges posited earlier as they had the strong will and determination to retain their traditional practices within their families. Although education is a very strong factor in food choice in most studies, in this sample the distribution of mother's education is quite narrow (most have a Bachelor's) and so this variable did not have much variance.

Table 5. 9. *Breakdown of overall participants (MAAS) subscale results and demographics*

Variables	Waterloo Region (n=12)		Mississauga (n=12)	
	M	SD	M	SD
Length of Stay in Canada (years)	10.9	5.1	8.9	5.5
Participants Age (years)	40	5.9	41	5.2
Annual Income (thousands of dollars)	56.95	25.3	52.04	23.7
Number of Children in Family	4	1	3	1
Participants Occupation				
- Housewife	n=3 (25%)		n=4 (33%)	
- Part-time work	n=5 (42%)	-	n=2 (17%)	-
- Full-time work	n=4 (33%)		n=6 (50%)	
Subscale1: Separation Vs. Assimilation	16.5	3.5	16.6	2.5
Subscale2: Integration Vs. Marginalization	22	3.3	22.1	3.4

M= Mean, SD= Standard deviation, n= number of participants

5.4.2 Correlation Between the Two Subscales

Pearson's correlation coefficient statistical tests were conducted as Table 5.10 summarizes the findings for the two MAAS subscales, by different demographic variables. Separation vs. assimilation was not associated with length of stay in Canada; participants' age; annual income; and children's age. The p -value > 0.05 indicated the correlation is not statistically significant at 5% level. In contrast, integration vs. marginalization was significantly positively associated with length of residency in Canada ($r = 0.35, p < 0.05$); it also had a moderate positive association with participants age; annual income; and a negative relationship with number of children. However, none of these three associations age; annual income; and number of children were significant.

The acculturation subscale separated vs. assimilated was not correlated with retaining traditional food practices, contrary to other studies elsewhere. The preference for continuing to cook traditional food did not have any strong relation to either of the two subscales of the MAAS scale. As previously discussed, it was related more to participants' demographics such as mothers who did not work reduced frying food and limited traditional food preparation (Table 5.11). Also, the MAAS results showed there is no impact of the integrated vs. marginalized subscale. But notably the "assimilated" group is actually different from the other two: they continue to fry more, are more likely to read nutrition labels, are much more likely to limit traditional food, more likely to go to fast food restaurants, and more likely to be influenced by their children. However, the assimilated group were only 5 out of the 24 participants, so while the differences were suggestive, they were not statistically significant. Gilbert & Khokhar, 2008 had demonstrated that different ethnic groups often have very different dietary habits, and upon

immigration changes occur over time whereby immigrants move away from their traditional diet as they gradually adopt a more mixed diet that includes aspects of their traditional diet as well as the more Westernized diet.

However, other researchers indicated that the adoption of a Western diet has been investigated as a possible cause of dietary changes among immigrant populations, the resistance or reluctance to adopt a Western diet has also been investigated (Satia-Abouta et al., 2002a; Kwok et al., 2009; Varghese & Moore 2002). The other study conducted among South Asians (Lesser et al., 2014) found that the immigrants of South Asian origin in Canada had adapted some healthy habits such as less frying food and more grilling as well as changing in their food preparation method. But, they had also increased some unhealthy habits, such as a higher rate of access to convenience foods, using sugar-sweetened beverages, eating red meat and eating out. Appendix G tables 1&2 contain the breakdown of the overall results of the MAAS subscales; the participants' dietary food choices; and demographics summarized from the interviews.

Table 5.10. *Correlation between MAAS subscale, age, Length of Stay in Canada, Income, and Number of Children*

Characteristics	(N=24)	
	Separation Vs. Assimilation	Integration Vs. Marginalization
Length of Stay in Canada	-0.095	0.35*
Age	0.053	0.21
Income	0.066	0.21
Number of Children	0.063	-0.16

*Indicates that correlation is significant at 5% level.

Table 5.11. *MAAS subscales and participants overarching food behaviors*

Characteristic	MAAS subscale separated/assimilated N=7 Separated, N= 5 Assimilated, 12=neither			MAAS subscale integrated/marginalized N=8 Integrated, N= 6 Marginalized, 10=neither		
	Separated	Assimilated	Neither	Integrated	Marginalized	Neither
Frying less	n=5/7 (71%)	n= 1/5 (20%)	n= 5/12 (42%)	n= 1/8 (13%)	n= 5/6 (83%)	n= 5/10 (50%)
Reading Nutrition Labels & more	n=5/7 (71%)	n=5/5 (100%)	n=8/12 (67%)	n=6/8 (75%)	n=5/6 (83%)	n=7/10 (70%)
Limited Traditional Food	n=2 /7 (29%)	n=4/5 (80%)	n=2/12 (17%)	2/8 (25%)	n=2/6 (33%)	n= 4/10 (40%)
Increased Visiting Fast Food / Restaurants	n=3/7 (43%)	n=3/5 (60%)	n=3/12 (25%)	n=2/8 (25%)	n=2/6 (33%)	n= 5/10 (50%)
Children Influencing	n=3/7 (13%)	n=4/5 (80%)	n=8/12 (67%)	n=6/8 (75%)	n=5/6 (83%)	n= 4/10 (40%)

5.5 Summary

The fifth chapter of the study contained the results of the analysis of the 24 interviews with the Arab-Muslim mothers who are currently residing in Canada. The purpose of the qualitative phenomenological study was to examine how mothers who immigrated to Canada five years or more ago feed their family and school-age children; as well as to investigate their experience of adapting to Canada’s different culture in terms of their food choices. Through the analysis and with the help of NVivo11 by QSR software,

10 major themes and several other minor themes were established. These themes all aimed to address the five research questions of the study.

It was discovered that the dietary habits of Arab Muslims before they migrated to Canada during the weekday and weekend included their breakfast staples of vegetables, fried food, and dairy products; and their main meals included meat, chicken, rice, and vegetables. In addition, during the special occasions, they had rich traditional meals such as meat, fish, vegetables, rice, and dessert. Meanwhile, the majority of the participants reported that even before their migration, they already practiced frequent visits to fast food chains/restaurants. For the second research question or the changes that have occurred in the diets of Arab Muslims after immigrating to Canada, participants reported that they have since practiced healthier eating habits or used less frying in cooking their food. Furthermore, they again reported that they go to restaurants more often. The third research question asked how the mothers from Arab-Muslim community see or practice daily food preparation upon migrating to Canada. Participants indicated that in Canada, they have since shifted to preparing and consuming easily prepared meals due to the lack of time. In fourth question participants also insisted on preparing traditional foods despite the issues on time and product availability, for example stuffed vegetables, although some used simpler preparation methods. Finally, the fifth question indicated the key challenge faced by the participants was the issue of the quality of food products in Canada. For the participants, the presence of chemicals and hormones on food products; price of Halal food or Arabic products and the taste being different from their country of origin were key problems.

A second stage of analysis was to examine how, participants' demographic data were used as factors that might have had impacts on various aspects of food choices. Among Arab immigrants such as mother's occupation, household income, age of children and length of time in Canada. Two overarching themes (*Overarching theme1: Practicing Healthier Eating Habits; and Overarching Theme2: Factors Correlated with Continuing to Cook Traditional Foods and Children's Experiences of Western Food*) were found to be correlated with various characteristics such as participants' occupation, length of residency, current city of living, household income, and their children's age.

The MAAS acculturation survey with the 24 participants was examined. From the acculturation survey, it can be learned that participants had mixed acculturation perceptions and experiences. The participants' responses indicated that the interviewed Arab immigrants had friends from both the Arab and Canadian communities. In addition, they also believed that they had equal socialization between the two communities of the Arabs and Canadians. Although it was discovered that the participants reported that they have a high interaction or socialization score with the other Arabs which can mean less assimilation to the Canadian society; the finding was again balanced when the participants found themselves well-integrated and adjusted with the new community. However, the findings on the two MAAS subscales were not correlated with other demographic variables (with the sole exception that those who had lived longer in Canada were significantly more likely to be integrated). There were also no significant correlations with dietary habits. Moreover, the two subscales were not correlated with each other and the reliability on each subscale was low. The next chapter will contain an in-depth report on the interpretation of findings in relation to the literature, recommendations, implications, and conclusion.

Chapter 6

Discussion

The purpose of this study was to explore the changes in the diets of 24 Arab-Muslim immigrants who have been residents in Canada for five or more years and examine how determinants affect food choices. More specifically, the study examined how Arab Muslim immigrants in Canada adapted to a different culture, particularly with food choices. A phenomenological methodology using semi-structured interview was utilized to gather results on dietary changes before and after migrating to Canada. Using qualitative methods to explore the experience of Arab (Mother) immigrants regarding their food choices fit well with the foundation of Kleining (1982) “holds that qualitative methods can live very well without the later use of quantitative methods, whereas quantitative methods need qualitative methods for explaining the relations they find.” (Kleining, 1982 as cited by Flick, 2009, P.25). However, the sample of this study is not representative of all Arab-Muslim immigrants in Canada: the women were highly educated, they all lived in urban environments with reasonably large Arab-Muslim communities, and the experience in other cities with smaller communities and less access to traditional foods, would be different.

Moreover, this qualitative study aimed to explore the acculturation of the same participants through a Likert-type survey. The inclusion criteria were mothers who were in charge of daily meals and who resided in the metropolitan areas of Kitchener-Cambridge-Waterloo and Mississauga. Given the relatively limited number of studies on Arab immigrants or even Muslim populations in Canada (Abou El Hassan & Hekmat, 2012),

this study emphasized the acculturation of Arab Canadians. In light of this, the study aimed to answer the following five research questions:

RQ1: What were the self-described dietary habits of Arab Muslims before they migrated to Canada?

RQ2: What changes have occurred in the diets of Arab Muslims after immigrating to Canada?

RQ3: How do mothers from Arab-Muslim community see/practice daily food preparation upon migrating to Canada?

RQ4: Which traditional foods do Arab Muslims consider to be the most important to keep and why?

RQ5: What challenges do Arab Muslims in Canada report in relation to their food consumption?

The remainder of this chapter will summarize the results found in Chapter 5, as well as engage in a thorough discussion of the results of the study, its unique findings, limitations, and recommendations for future research.

6.1 Summary of findings

Although the study did not develop a hypothesis due to its qualitative approach, the literature review provided a broad hypothesis that migrating to Canada has a significant effect on the food choices of Arab Muslims. The thematic categories that emerged in the study answered the five research questions regarding changes in the dietary habits of Arab Muslim immigrants in response to a new environment with the Western style of food and covered the three objectives of this study. Major themes developed in the study were the immigrants' diets prior to their migration to Canada and the changes after migration,

including dining out, the traditional foods they still prepared even after migration, and their general daily food consumption upon migrating to Canada.

Moreover, the three objectives of this study were achieved as follows:

1) To explore the impact of length of residency on participants' perceptions about food and food choices in terms of which they have maintained their traditional diet or have transitioned to a more Westernized diet. The study findings confirmed that length of residency in Canada as well as the Arab Muslim immigrants' cultural integration affected their dietary customs. Participants conveyed that they had reduced their frying since they moved to Canada and used the oven or grilled more often. In their home countries, they had always used oil and ghee to fry food, but when they migrated, they became aware that this was unhealthy if done every day. Despite their busy schedules and the fast-paced lifestyle in Canada, participants expressed that they still found time to prepare traditional foods because they wanted to feel at home and remind their children of their cultures. In terms of eating out, the participants shared that their children sometimes wanted to eat out and this is the main reason the respondents did so.

2) To gather information concerning the Arab Muslim food culture, food consumption; and food preparation methods in order to have a better understanding of the changes that participants experience in terms of their food choices as a result of new culture. Participants stated that a major change in their diet was eating frozen and packaged food due to lack of time availability. Also, they expressed their sentiments on the quality of food products and the high prices of fresh fruits and vegetables in Canada, which the participants described as tasteless and having no particular aroma. Furthermore, the study revealed that the participants' common challenges upon migrating to Canada, especially

during the first year, were the differences in food products, price of halal food, price of Arabic products and some other issues particularly with regard to chemicals and hormones.

3) To assess participant's acculturation level and explore apparent links between acculturation level and experiences of dietary transition following immigration to Canada. Participants scores from MAAS survey did not indicate any relation between acculturation level and dietary changes after immigration (details under 6.2.4 Acculturation). However, it is possible that the MAAS scale did not measure acculturation particularly well for women in Canada (it was developed for men in the US). There were impacts of several variables known from previous studies to be associated with acculturation (mother's work outside the home, presence of school-aged children in the household, and length of stay in Canada) with food choices.

Overall, the results indicated both positive and negative changes in the diets of the Arab Muslim participants after they migrated to Canada. In addition, the findings of this study suggested that these changes may not be related to social cohesion given that the participants generally believed that they have balanced and comfortable socialization and interactions with other Arabs and with Canadians.

6.2 Interpretation of the Findings

The results as a whole challenge a large body of existing knowledge discussed earlier in the review of related literature, particularly as it relates to the argument that the immigrant experience often has a negative impact on diet (Cruickshank & Landman, 2001; Misra & Ganda, 2007; Kwok et al., 2009; Lee, 2001; Satia et al., 2002b; Varghese & Moore, 2002; Lesser et al., 2014; Tami et al., 2012). Indeed, the findings of this study indicated that participants experienced positive and healthier changes in their diets after

migrating to Canada, particularly in the reduction in frying food (Lesser et al., 2014; Tami et al., 2012; Abou El Hassan & Hekmat, 2012). This may be related to the different stage of the nutritional transition in the countries of origin in this study, compared to that in previous studies.

However, some of the extant literature also corresponded with the findings of this research, particularly with regard to the food choices of a specific group. Rosenmoller et al. (2011) noted that positive and negative changes occur in terms of the dietary behaviors of Chinese immigrants, and Lara et al. (2005) found that acculturation affected the health of Latinos both positively and negatively. This is consistent with this study's findings that Arab immigrants were newly aware of healthy cooking options upon migrating to Canada, but the negative aspects of their food choices stemmed from packaged and frozen foods due to time constraints and the expensive fresh produce in Canada, which was different from their home countries.

Significantly, the results of the study are ambiguous in their correlations with the existing research on how increased Islamophobia negatively affects Arab Muslim immigrants and their acculturation processes (Rahman & Rollock, 2004). However, this study was not designed to look into Islamophobia due to sensitivity of this, but this might inspire other researchers to look at any association between the islamophobia and dietary acculturation among this group.

These challenges were not reflected in the findings of this research; participants conveyed that although they had more Arabic friends than Canadian friends, they still felt as though they could blend easily with society. This could be further examined in future

studies focusing on acculturation related to policy shifts regarding international migration that may affect migrants.

6.2.1 The Dietary Habits of Arab Muslims Before They Migrated to Canada

The first interview question was “tell me about what you and your family ate on a usual weekday and weekend before coming to Canada”, and the findings were consistent with the extant literature. For example, Kritzman (1999) found that Arabs maintained their intake of dairy-based foods, and Participant 3 in this study reported that her breakfast was mainly vegetables and dairy products, as well as chicken and rice served with yogurt and eggplant for lunch. Salarvand and Pournia (2014) emphasized the importance of figs, olives, dates, honey, seafood, and olive oil for Arab individuals. Similarly, Participant 1 in this study mentioned that their breakfast menu included “olive, cheese, yogurt cheese, hummus, falafel, normal cheese, and butter.”

Another interview question was “tell me about what you and your family ate on a special day/holiday before coming to Canada?”, to which participants indicated that they prepared rich traditional meals. This finding is also discussed in the existing literature. According to Sandicki (2006), who argued that ethnic groups maintain their ethnic identities and cultures even during the process of acculturation. In this study’s findings, participants maintained their identities through meal preparation during these holidays.

However, the finding of the participants’ frequent dining out was inconsistent with previous literature findings since the participants in this study had dined out frequently before they came to Canada; Participant 7 mentioned that they would eat out three times per week in Qatar, and Participant 12 explained that in KSA, there are many restaurants, and they ate out often. However, this was inconsistent with Gilbert and Khokrar’s (2008)

finding of increased consumption of fast food and non-traditional food when families moved to a Western country. Also, another study indicated that an increase in eating out as a negative adaptation among south Asian immigrants living in Canada after migration (Lesser et al., 2014). Abou El Hassan & Hekmat, (2012) found that the amount of eating out before and after immigration did not change among Arab immigrants living in GTA Canada. Meanwhile, participants from Sudan where the American products/food banned by the government, and rural Egyptian cities where fast food chains did not exist, had not eaten fast food in their home country and had increased access to fast food or restaurant after immigration.

6.2.2 Changes in the Diets of Arab Muslims after Immigrating to Canada

Results in this study reflected both positive and negative changes in the participants' diets after they migrated to Canada. Given these findings, the results from the second research question do not align with the general extant literature, which finds that immigrants tend to make poorer food choices and develop obesity. More specifically, the results of this study show that one of the changes after migration was that Arab Muslim immigrants practiced healthier cooking and eating habits, particularly in reducing frying food and eating fried food. Participant 10 had reduced frying food, and Participant 2 shared that she had reduced her frying from 100% to 20% following migration. Although these findings correlate with Rosenmoller et al. (2011), who noted that upon migration, immigrants began to avoid deep-frying, these results are at odds with the rest of the existing literature that asserts that migration has negative effects on immigrants' health and food choices (Kwok et al., 2009; Landman & Cruickshank, 2001; Lee, 2001; Misra & Ganda, 2007; Satia et al., 2002b; Varghese & Moore, 2002).

Researchers should keep in mind that those studies are done under different conditions such as countries of origin, ethnicity, marital status, income, number of children, statues of immigration (refugee/immigrant) length of residency, age and education. For example, Tami et al., (2012) reported both positive and negative changes on the dietary pattern of Muslim Arab immigrant living in the United States. In contrast Abou El Hassan & Hekmat (2012) found that Arab immigrant families living in GTA Toronto consumed both Arabic and Western food but the majority indicated that their food consumption became healthier than before immigration due to adaptation of new methods for healthy food preparation, variety of healthy food and increased knowledge of healthy food choices. However, they also continued to practice aspects of their food culture. It is also possible that the changes are different for men and women immigrants.

In this research study, the majority of mothers had a higher education background which might influence their knowledge of healthy food choices as well as taking in account their ability in reading and understanding English. A study of Lesser et al., (2014) showed that the higher education background among South Asian immigrants living in Canada led to reporting less fat consumption and more healthy food choices in comparison with the same ethnic group who had lower English level and consumed more fat which is similar to the US finding by Bharmal et al., (2018). Notably, all mothers in this study were married, living in urban areas and living as a family in one house so the results here might be different for single moms, students or families without children. Also, the nutrition transition is another factor that affected a few of the study participants. As Satia (2010) explained that nutrition transition occurred due to two factors globalization (food factor) and urbanization (individual factors related to moving from countryside to urban or

income). In regard of urbanization a few mothers in this study showed some change in their food pattern which more likely related to the food transition. Two participants were mentioning that Western food was not available in their previous location (rural) as one of them said that *“in the morning we have been eating pancake, cheddar with jam and toast or cornflakes with milk. All of these new foods for breakfast I learned here after immigration although these were not available at the regular store in Egypt because all American style food was only available at big markets and was expensive.”*

On one hand, the findings also suggested that participants had begun eating out more often; they cited their children’s requests as the primary reason for that change. This particular finding, however, was not reflected in some of the existing literature, which emphasized that mothers control their children’s daily diets and are concerned for their children’s health (Carnell et al., 2011; Moens et al., 2013; Moore et al., 2007). On the other hand, while some participants in this study showed that they were going to eat out frequently before immigration, others increased after immigration which is consisted with Lesser et al.’s (2014) research mentioned earlier in this study that pointed out that South Asian immigrants living in British Columbia, Canada had increased some unhealthy habits, such as a higher rate of access to convenience foods, using sugar-sweetened beverages, eating red meat and eating out. Although 60% of the participants indicated that they had healthier option when dining out, however, food at restaurant might be healthy ingredients but cooked in an unhealthy way or contain high amount of salt, sugar, fat that cause health problems.

Another observation recorded in this study was that children might have influenced the shift towards healthier food as one participant discussed nutrition labels and indicated

that :*“My daughter and my children are used to reading [labels], but I don’t read because I don’t think I need to read as I don’t gain weight....My daughter is used to reading (labels) and she says that I gained weight because these foods contain high calories and fats. Sometimes she is taking off cheese or other products containing fat from the cart. I only read the ingredients to check if they contain gelatine or pork.”*. Also, another mother said that *“I started reading them here in Canada. It started here where I had to see whether a product is halal or not. Then after my son got sick, I had to be careful. My sister is a nutritionist too. My children read them too. They care about the presence of gelatine. I learned here that the first ingredient [listed] is the highest in percentage.*

The major theme under research question 3 was the participants’ perceptions of their daily food preparation upon migrating to Canada. They reported that they made sure to read food labels because products could contain *haram* (forbidden) ingredients. Muslims are prohibited from consuming pork or its derivatives (Fadzlillah et al., 2011). Participants also shared that they needed to be aware of whether their foods were *halal*-certified and explicitly permitted by the Qur’an. Some of the participants were also critical of the nutrition content of food products, so they read ingredient lists before buying. Participant 9 expressed that in Canada, she learned how to cook more healthfully by using olive oil, brown sugar, and increase in eating raw vegetables and fruits. This is inconsistent with some of the literature findings that immigrants tend to have poor food choices after migration (Cruickshank & Landman, 2001; Misra & Ganda, 2007; Kwok et al., 2009; Lee, 2001; Satia et al., 2002b; Varghese & Moore, 2002). However, more recent research of South Asian immigrants in Canada (Lesser et al., 2014) found that immigrants had adopted positive healthy eating behaviours as well.

In addition to their daily consumption, participants stated that due to lack of time and the high cost of fresh food in Canada, their food preparation styles had changed greatly after immigration. The results showed that the mothers had to adjust from their traditional foods to Western-style, easy-to-prepare foods due to time constraints. Also, participants explained that they had to prepare foods for their children that were appropriate for eating at school such as sandwiches and granola bars, and this echoed Satia et al.'s (2000) finding found that immigrants tended to choose instant foods because traditional foods took more time to prepare and were expensive. Study also noted that immigrants could shift away from traditional foods to Westernized diets (Gilbert & Khokhar, 2008). However, this study's finding showed that some participants still prepared and consumed Arabic foods even after they migrated to Canada which might contribute to above average sodium daily intakes and some health problems (Johnson & Garcia, 2003). Also, while participants described their daily food consumption and preparation which included vegetables, meat, chicken, rice,....etc., the actual serving size was not reported in this study, and it is possible that less food was fried, but portion sizes could have changed.

Lastly, it is important to note that many of the participants still attempted to prepare traditional food, particularly stuffed vegetables. Despite their busy schedules, mothers retained some food practices because they enjoy their traditional foods, and this reflected Kritzman's (1999) finding that Arabs maintain their dietary habits. As one participant said that she had modified her traditional food cooking *“Very little: extra lemon, spices but no major change. I use modern equipment for example for soup. In Lebanon we use dark lentils, my mother would screen it to remove the dark peel. I mix it with my high-power mixer that crushes the peel and it becomes part of the mixture. I also add raw onions to the*

mix. My mother used boiled onions. Then, I decorate it with fried onions. I made the recipe easy and quick.”. However, most mothers stated that were forced by their children’s desire or limited time to change their cooking style of Arabic food to Western food style such as grilled chicken, meatballs with pasta, fries, pizza, nuggets, raw vegetables, pancakes, waffles, and cereals. Mellin & Wandel (2005) indicated that most mothers changed their food habits to satisfy their children. Nevertheless, some mothers had learned preparation of new food dishes from different ethnicities such as Ukrainian, Indian, or Italian and this finding was similarly pointed out by (Tammi et al., 2012) regarding some Arab mothers who had similarly learned the skills of preparing food from different cuisines in the United States.

6.2.3 Challenges of Arab Muslims in Relation to Food Consumption

There is a lack of extant literature that addresses the challenges Arab Muslims face in their everyday food consumption. Participants in this study expressed that the vegetables and fruits in Canada tasted different from the produce in their countries of origin; one participant shared that tomatoes in Syria have a fresh scent and taste. They added that food products in Canada use GMOs and chemicals. In terms of food prices, the participants also conveyed that food in Canada is more expensive. However, there is a lack of studies that present immigrants’ poor food choices as a function of the high costs of healthier foods, although one study did conclude immigrants in the United States consumed more beef than fish because the latter is more expensive (McArthur et al., 2001; Satia et al., 2000).

Moreover, most participants indicated that after immigration they switched to Western style breakfast due to the lack of time for preparing traditional breakfast, or children’s’ desire to eat cornflakes, pancakes, waffles, cereal, granola, and cake as one

mother showed *“Yesterday, I went to work so I did not have breakfast at home. The children usually have cereal. My daughter does not have breakfast every day. If I do not prepare breakfast for her, she does not eat.”*. However, the age of children should be taken in account as another factor influencing food behavior and increasing adaptation to Western food among the family. One participants stated that *“My 16 years old daughter doesn’t take food with her to school, because there is a pizza and subway shop next to her school and she likes to eat it daily, this is the cause of her obesity. The price of two slices of pizza, and a soda around \$3:50. But My 11 years old daughter asks me for new things because she sees them at school, and I give a lot of attention to the school lunch meal.”*. The family also had to change to eat one hot meal around 6:00 pm which included Arabic cooked vegetables, meat, chicken, rice, pasta and salad. Others had changed their cooking style of Arabic food to Western food style such as grilled chicken, meatballs with pasta, fries, pizza, nuggets, and raw vegetables as well as some participants adapted and prepared food from different culture such as Indian, Chinese, Mexican, Pakistani food.

6.2.4 Acculturation

In exploring acculturation, the results of the survey did not match the existing literature. According to Britto (2008) noted in her study that, following the terrorist attacks of September 11th, 2001, Arabs could face a sociocultural environment that does not support, or is even hostile towards, them, which could have a negative impact on the development of their identity as well as their ability to adapt to their host country. However, the findings displayed that participants believed that they had balanced, comfortable socialization and interactions with other Arabs and with Canadians.

Findings of this study can be further explained with Berry's (1997, 2003) theoretical framework of a cross-cultural model of acculturation. The purpose of the framework was to understand the psychological changes that first-generation immigrant parents (mothers) experienced as they start to integrate into a new environment and culture. Berry's theory of acculturation highlighted that immigrants can have either positive or negative feelings towards their original and new cultures in terms of matters such as style of dress, language use, and food choices. In essence, this model focuses on the changes new immigrants may face: in this study specifically, the food changes of Arab Muslim immigrants in Canada were explored, and how participants perceived the positive and negative changes after they migrated. Participants reported the use of less oil and deep-frying as a positive change but preparing and eating frozen food as a negative change. One participant from the marginalized group indicated that *"Life here is different, we see slim people, so we started thinking to eat healthy foods to look like them"*. Although the perception of body image in Arab Muslim was not the main focus of this study comments were reported during the interview as one participant indicated that living in Canada: *"It had a negative change, because of lack of time we get food from outside the home and we put on weight. Though here healthy food is available, I believe that had I lived in Lebanon for the past years, I would have not put on as much weight."*

Also, participants saw cooking food from different cultures as positive change and limitations in preparing traditional food as a negative change. Another participant from the marginalized group stated that *"I learned the Libyan and Pakistani foods, and I learn a lot from the internet. I used to cook the Egyptian rice. Now, I am using the Indian rice ... There is also brown rice.....I learned to read them here in Canada, from a program at the*

church for cooking healthy by using olive oil, brown rice and using raw veggie/fruits as well as I was attending program with my kids in the early learning schools” Most mothers had been living in Canada for five years and more and their satisfaction of learning about healthy food choices was evident in their interviews. However, there were other issues with food quality as discussed earlier in this chapter. Nevertheless, some participants were not happy with these change in their food preparation or consumption as one of them from the integrated group mentioned that *“In Lebanon, we cooked daily or at least every other day. Here I cook only twice a week. I also prefer to cook fast and easy meals. I can’t devote more than two hours for cooking. I also lost interest in cooking. I would rather have a simple sandwich. No one is interested in a cooked meal as we were used to in Lebanon.....It had a negative change, because of lack of time we get food from outside the home and we put on weight. It is amazing that when I go to Lebanon for a visit, I lose weight. Though here healthy food is available, I believe that had I lived in Lebanon for the past years, I would have not put on as much weight.”*

Overall, the greater the difference an individual’s original culture is from that of the host country’s culture, the more challenging it can be to acculturate (Satia- Abouta, 2003). The findings reported here suggest that many of the Arab Muslim mothers interviewed in this study have integrated into Canadian society (i.e., have Canadian as well as Arab friends) but have not fully assimilated (i.e., they retain important aspects of their cultural identity).

This study differs in sample size and in participants’ cultural backgrounds, ages, and general breadth from previous studies. Several studies limited participants by cultural group (Misra & Ganda,2007; Gilbert & Khokhar, 2008; Rosenmoller et al., 2011; Varghese

& Moore, 2002;), age (Marquis & Shatenstein, 2005; Van Hook & Baker, 2010) or had larger sample size (Kaiser et al., 2001; Ricciuto et al., 2006). The results of the present study implied that Arab Muslim immigrants not only have impact on the countries that are accepting immigrants, it also has an influence on the immigrants themselves. New attitudes toward the culture of origin tend to develop as a result of exposure to the new culture through contact and communication which in this study appeared in their adaptation to the new food behaviour, preparation, and consumption, as well as continuing to practice their traditional food preparation, a phenomenon which is called “bicultural” Satia et al., (2000). Also, Tami et al., (2012) showed that Arab mothers who were living in United States for five years or more as bicultural, due to their ability to merge their traditional foods with Western foods. According to Satia-Abouta (2003), various studies (Berry, 1980; Satia et al., 2001; Satia et al., 2000; Bermudez et al., 2000) have demonstrated that acculturation depends on greater exposure to a host country’s popular culture. This exposure is in turn facilitated by residing in the host country for a longer period of time, having a high level of education and income, being employed outside of one’s residence, being married, being a parent to young children, and being more fluent in the dominant language (Satia-Abouta, 2003; Berry, 1980; Satia et al., 2001; Satia et al., 2000; Bermudez et al., 2000) The present study confirmed that all these variables mattered (with the exception that since all the women were married, the effects of marriage could not be identified).

However, the process of cultural adaptation/change can occur either because the immigrants themselves are eager to embrace the mainstream way of life characteristic of their host country or because they feel under pressure to do so. Whether immigrants are eager to adapt or feel under pressure to do so will impact the extent to which immigrants

adopt the new culture that they enter, as well as the extent to which they maintain their previous cultural beliefs and norms. Aspects of the new culture that will influence immigrants to various degrees include lifestyle practices such as food consumption, clothing choices, and various customs and activities.

In general, the acculturation scale result was not high in the internal reliability coefficients or Cronbach alphas in the present context and did not provide major explanatory power for the findings. Although the MAAS scale didn't work well – that is the main scale for this specific ethnic group - another more generic scale such as the Vancouver Index of Acculturation (VIA) could be an alternative in future research. Other researchers found that the acculturation scale might not capture the acculturative process among immigrants. Thomson and Hoffman-Goetz (2009) indicated that there were limitations in many acculturation scales “(in) particular, they highlight a lack of precision, erroneous use of unidimensional scales, and neglect of acculturative change processes in measurement, which may lead to a less comprehensive understanding of the relationship between acculturation and health”. (Thomson and Hoffman-Goetz (2009) cited by Alegria, 2009, P.996). Nevertheless, Alegria (2009) indicated that “Proxy acculturation measures fail to differentiate between the *process* of acculturation (i.e. language acquisition) and the *consequences* of acculturation (i.e. family conflict; acculturative stress).” (P.997). Her foundation is more likely to explain the lack of association between the scale when applied to Arab Muslim immigrant mothers and the change in food behaviour/consumption/preparation after immigration.

6.3 Implications of the Findings

There are a few direct implications for positive social change in this study, specifically regarding acculturation. Results indicated social cohesion among Arab Muslim immigrants in Canada, and the acculturation survey findings suggested that they had also integrated well with the Canadians. This may, in turn, provide positive social change indirectly in terms of in-depth understanding of the barriers that Arab Muslims face in Canada that impede their daily Muslim practices. With more Arab Muslim immigrants and greater opportunities to build trust and respect for both immigrants and host communities. Arab Muslims may be more comfortable in talking about the barriers they face and Canadian may be able to provide simple solutions like programs or resources to help them make healthier choices when faced with an array of unfamiliar foods after immigration. For example, Arab mother Muslim immigrants might need to enroll in programs that are designed for Arab Muslim immigrants in order to teach them the healthy food choices from Canadian market and how to use alternative materials. Also, an Arabic version of Canada's food guide could help Arab mother to learn more in their preferred language about portion sizes and healthy food preparation methods, especially among new comers with less command of English. In this study, participants showed a slight shift from traditional food consumption/preparation (which mostly consists of rice, bread, Arabic desserts, meat, chicken) towards western food which includes some unhealthy choices such as replacing sugar with brown sugar but continuing to eat sugar, eating pancakes, waffles, cornflakes with syrup which might have some health consequences. Hence, public health programs might help to inform them about healthy choices and practices.

In light of this, the creation of policies and programs in Canada is necessary in ensuring a positive environment for immigrants and the society as a whole. The sample of this study was relatively small and restricted to urban areas in Southern Ontario, and the findings are specific to a particular demographic group. It would be useful to run additional research in a larger population sample which might help programs for immigrants to shape a better understanding of the exact changes in their dietary pattern. The acculturation results and length of stay were not significantly associated with their changes in food choices after immigration. Future research might help to investigate the association between Arab Muslim immigrants' health and acculturation levels in Canada among first and second-generation immigrants.

Education can be an effective tool in raising awareness of diversity. This can be done through curriculum integration, training, and workshops that promote cultural integration and the values of people of different backgrounds. Mainstreaming cultural awareness may help immigrants adjust to new environments. Incorporating cultural values into education systems may reduce perceived injustices or discrimination among cultures and ethnic groups. Although this strategy might not show results until the long run, it is essential to note that the future depends on young people and if youth are well educated regarding global issues, they are likely to develop critical thinking and vision for how to confront issues in societies. Importantly, through education, schools are teaching students the empathy and equity that can make a difference in countries' futures (Schonert-Reichl, 2012).

In Canada, there is an influx of immigrants for many reasons; thus, it is important to take into account the experiences of new immigrants. For this purpose, acculturation is

important to address because research on this important topic can help shed light on how to ensure positive integration into new environments. With globalization a pressing concern today, immigration is one of the key events that determines both its advantages and disadvantages. The matter is seemingly complex, but policy makers and the international community are the key actors in developing appropriate policies that will contribute to the positive integration of migrants. Addressing immigrants' underlying issues cannot be simply ignored because this can have negative results for both immigrants and their host countries. As the result of this study showed the majority of participants were integrated well to the Canadian society and satisfied to have Canadian and Arab friends. On the other hand, there a small number of mothers were marginalized due to lower English level, less self-confidence, and feeling not welcomed by Canadian in their community. Also, the level of stress or depression was not measured in this study. The research heard about this from three of the participants but this was not coded in the results chapter due to the minimum number of occurrences in this study being set as 25% and above. As one mother said *"Food is not a sole factor. Age could be another factor. The emotional status is a factor. Circumstances are also a factor."*

This study complements theories in the existing literature. Padilla and Perez (2003) noted that acculturation processes have been examined regarding how individuals react to new cultures and environments. Similarly, Berry's theory of acculturation explained how immigrants respond through psychosocial changes as they enter new cultures. The phenomenological method of this study provided information on the changes Arab Muslim immigrants experience in terms of food and diet. This supports Berry's theory that there are behavioral changes when individuals are exposed to new environments.

This research was designed for first generation Arab Muslim immigrant families who have been living in Canada five years or more, have children of school age and where the parents are married. It is evident that the phenomenon of dietary acculturation for Arab Muslim Immigrants to Canada involved an experience of trying to find a balance between carrying forward food-related traditions and trying to adapt and fit into Canadian culture, including Canada's food culture. However, as mentioned earlier in this chapter the acculturation and length of residency was not associated with their change in food choices after immigration. It might help to measure their cultural attachment to find out any association between the new culture and change in food behaviour. It is possible that a different measure of acculturation would have provided better results.

6.4 Limitations of the study

The study focused on experiences and self-reported changes in the dietary habits of Arab Muslim immigrants in select metropolitan areas in Ontario, Canada. The geographic scope of the sample could be a limitation in generalizing the study findings; a broader geographic scope could generate new themes or different findings.

Another limitation concerns the usage of Likert scales in the acculturation survey. Given that the space between each choice is not equidistant, there exists a limitation in accurately measuring participants' attitudes. In this study, participants may have avoided selecting extreme answers due to concerns that their answer might be perceived in a negative manner.

Another limitation is the small sample size of the study; a larger sample size could have greatly affected the results of the acculturation survey (Hartley, 2014). Notably, *The Male Arab Acculturation Scale* (MAAS) was not designed for measuring Arab females

living in Canada as well this scale was translated to Arabic and the validity/reliability of the Arabic version has not been tested yet. The internal consistency or Cronbach alpha scores for each subscale were low and unacceptable for the first subscale Separation vs. Assimilation. Similarly, the internal consistency or Cronbach alpha for the MAAS also appeared to be low on previous research as Statistics Canada (2007) suggested that to have good reliability, coefficients should range between 0.80 to 0.89; and 0.90 or more is excellent, while the acceptable reliability range between 0.70 to 0.79; and limited at 0.70. Thus, the reliability of the MAAS scale is acceptable but not good.

The phenomenological research approach is by nature subjective. Because of this design, the results are not quantified, making the analysis of findings more subjective. Qualitative studies may not accurately reflect the degrees to which migration and food choices are related. Asking people to go back in time before immigration and talk about their food choices before coming to Canada might impact on the accuracy of information. Also, sensitivity was involved as some participants had a difficult time talking about their lives before immigration and remembering their food habits, family gatherings, and childhood friends which they mostly missed after coming to Canada. Some participants cried during the interview which led to skipping some questions or not giving details. Accuracy of the word for word translation from Arabic to English might be limited due to some Arabic words not translating well into English.

6.5 Recommendation

In light of the results of this study, additional studies are necessary, particularly in both metropolitan and rural areas of southern Ontario, to better understand the changes in dietary habits experienced by Arab Muslim immigrants due to integration into Canada's

environment. In addition, further research is recommended for an in-depth understanding of the process and effects of acculturation to Canada's environment for Arab Muslim immigrants among the first and second generation. Suggested research areas include language use, socialization habits, children's behavior, and other lifestyle aspects. Furthermore, future studies should investigate the impact of acculturation on other ethnic groups in Canada. It could also be beneficial for researchers to examine the public attitudes of Canadians in relation to immigrants' acculturation. Notably, this research only recruited participants who entered Canada as immigrants and not refugees for whom the results of the research and the *MAAS* might be different as they did not voluntarily migrate. Consequently, additional research on refugees could help the community, government and public health to understand their level of acculturation and food behaviour.

The phenomenological approach in this study presented the experiences of the participants specifically regarding their food changes and acculturation after migration. However, the findings could support using a quantitative method to explore the food choices and acculturation of Arab Muslims in Canada. Quantitative research can produce and confirm hypotheses that can contribute to an in-depth understanding of acculturation among Muslim Arabs and can identify additional research areas related to acculturation, particularly food choices. In addition, the findings can support research on linkages between food changes and health in Muslim Arab immigrants. There is a need for a quantitative study to objectively explore findings and allow for generalizing the findings. However, as mentioned earlier in this chapter, it "holds that qualitative methods can live very well without the later use of quantitative methods, whereas quantitative methods need

qualitative methods for explaining the relations they find.” (Kleining, 1982 as cited by Flick, 2009, P. 25).

Lastly, future studies are recommended that focus on the effects of the changes in Arab Muslim immigrants’ dietary habits on their health and nutrition as a result of their integration into Canada’s environment; this study, for instance, revealed the positive change of avoiding frying and eating fried foods. However, more than the increase in knowledge regarding changes in dietary habits, specific health habits should be investigated in the future. Future studies that focus on immigrants’ health as first and second generation may produce additional information regarding immigrants’ health and in terms of food choices.

6.6 Conclusion

This study utilized a qualitative design that aimed to answer the following research questions: What were the dietary habits of Arab Muslims before they migrated to Canada? What changes occurred in their diets after they immigrated to Canada? How do Arab Muslim mothers practice daily food preparation after migrating to Canada? Which traditional foods do Arab Muslims consider to be the most important to keep and why? And what challenges do Arab Muslims face in daily food consumption? Through the answers to the research questions, this study may contribute to awareness of immigrants’ diets and support the importance of maintaining their cultures following immigration. As Arab Muslim immigrants to Canada become acculturated, they tend to try to balance the maintenance of their traditional dietary habits with being open to Western foods, although some individuals resist the Western influence more than others. Families whose children are born in Canada or who emigrated from wealthier Gulf countries are more influenced

by Western foods, in order to satisfy their children. There were varying levels of adherence to religious dietary observances. Other variables could also impact food choices, such as family income, children's age, level of education of the parents and parents' work. Generalization with a qualitative method was shown through analysis and interpretation of the data "Through rigorous inductive analysis, together with the use of confirmatory strategies that address the credibility of the conclusions, qualitative researchers can arrive at insightful, inductive generalizations regarding the phenomenon under study." (Polit et al., 2010). However, changes are expected for new immigrants as they attempt to integrate into new environments, and this study explored the changes in the diets of Arab Muslim following the central idea of the framework. The acculturation survey (MAAS) results, while intriguing, should be interpreted cautiously since the scale was designed for Arab American men and not tested in Canadian women. However, some of the extant literature was inconsistent with the findings of this study. In general, the literature emphasized the negative changes in immigrants as they are introduced to Westernized diets; some of this study's findings indicated healthier lifestyles among the Arab Muslim immigrants in Canada. Considering the increasing immigration of Arab Muslims into Canada, this work has direct importance in terms of improving our understanding of the process of food acculturation and how smoother transitions might be facilitated. Food can apparently act as a marker of acculturation for Arab Canadians and also represents social cohesion for Canada as a whole.

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APPENDIX A: Recruitment Poster Template
(English language version: another version was available in Arabic)

**Health Studies and Gerontology
University of Waterloo**

**PARTICIPANTS NEEDED FOR
RESEARCH on The Experiences of Food Choices**

We are looking for volunteers to take part in a qualitative study that will explore how migration might affect the food choices of Muslim Arab immigrants who currently reside in the metropolitan areas of Kitchener-Cambridge-Waterloo and Mississauga, both of which are located in Southern Ontario, Canada.

As a participant (Mother) in this study, you would be asked to participate in an open-ended interview of approximately 30 to 60 minutes. The questions will focus on your understanding of food choices, strategies that you use to have traditional foods, and barriers to traditional food consumption that you experience in Canada.

For more information about this study, or to volunteer for this study,
please contact:
(Rana Aljaroudi)
(Health Studies and Gerontology)
at
519-580-8800 or
Email: **(raljarou@uwaterloo.ca)**

**This study has been reviewed by, and received ethics clearance
through a University of Waterloo Research Ethics Committee.**

APPENDIX B: Interview Protocol
(English version: an Arabic version was used for interviews)

Anonymous Interviewee ID:

Interviewer:

Date of Interview:

Time of Interview:

Location:

Thank you very much for agreeing to participate in this study. The purpose of this project is to help us to better understanding of Muslim Arab food choices, as they face various challenges upon immigrating to Canada, including adapting to the new food environment. We are also hopeful that this information will help to develop better food choices in the future.

I am going to be asking you questions about your experiences with and perceptions of food choices before and after migrated to Canada. Is it ok if I audiotape the interview? Again, I want to stress that everything that you say here is confidential and will only be heard by members of the research team. As well, if you are not comfortable answering any questions, please let me know and we can skip them. Likewise, if you do not want to continue the interview at any point, please let me know and we can stop. Do you have any questions before we begin?

Demographics Questions

What is your age?

What is your country of origin?

Did you live in an urban or rural area in your home country?

Are you employed, homemaker or a student?

If employed, what is your occupation?

Are you in a full or part time job?

Is your spouse employed or a student?

If employed, what is his occupation? Is he in a full or part time job?

What is the approximate annual income of your household?

In what country or countries were you educated?

What level of education (high school, diploma, Bachelor's, Master's, Doctorate) have you obtained?

How many children do you have, and what are their ages?

Are you a citizen or a permanent resident of Canada?

Dietary change and food access

What were the dietary habits of Arab Muslims before they migrated to Canada?

Tell me about what you and your family ate on a usual weekday and weekend before coming to Canada?

Tell me about what you and your family ate on a special day/holiday before coming to Canada?

How often did your family eat out at restaurants or fast food outlets before you migrated to Canada?

What changes have occurred in the diets of Arab Muslims after immigrating to Canada?

Tell me about what you and your family eat on a usual weekday and weekend after coming to Canada?

Tell me about what you and your family eat on a special day/holiday after coming to Canada?

Are there some foods that are more difficult to obtain in Canada?

How do you access these foods?

a. in terms of cost?

What is your perception of the cost of food in Canada in general?

What foods do you view as being “inexpensive” or “expensive”?

b. availability?

What transportation methods do you use to go to the markets where you buy your food? How often do you go?

c. preparation?

Who prepares the foods for you and your family that you eat here in Canada?

How is this the same or different from the situation in your home country?

If you buy traditional foods, where do you buy them?

How often did your family eat out at restaurants or fast food outlets after you migrated to Canada?

If your habits changed due to migration, then why?

Which traditional foods do Arab Muslims consider to be the most important to keep and why?

Tell me about a favourite traditional food that you still prepare in Canada.

Has the flavour of your traditional food changed since you migrated to Canada?

How has it changed?

Why do you think it has changed?

What caused this change if there was any change?

Food choice

How do mothers from Arab-Muslim community see/practice daily food consumption/ preparation upon migrating to Canada?

Tell me if you have changed your method of food preparation since you migrated to Canada.

Describe what you ate yesterday?

What influences what you eat now?

How do you decide on what food you eat in Canada?

Have your children requested any foods that are different from your traditional foods since you migrated to Canada?

Tell me about your children’s food flavour and options preferences.

What challenges do Arab Muslims in Canada face in relation to their food consumption?

From where do you get your meat (such as beef, lamb, and chicken)?

Describe your preferences regarding the consumption of Halal food? Why do you have these preferences?

If you prefer Halal food, do you find that it is available/accessible and affordable here in Canada?

What you feel about the quality of food in Canada as compared to your country of origin?

In what ways do you think food here in Canada is healthier or less healthy than in your country of origin?

If your diet has changed since coming to Canada, do you think it has affected your health? If yes, then how?
Which dietary changes do you think have been positive? Which have been negative?

Interview Closure

Is there anything else you would like to add?

I am very appreciative of the valuable information that you provided me today. It will go a long way in helping us to learn how to help people better understand of your/this group food choices.

Thank you again for completing the interview.

APPENDIX C: Letter of Interview Information and Consent Form
(English version: an Arabic version was used for interviews)

University of Waterloo

Date

Dear *(insert participant's name)*:

This letter is an invitation to participate in a study I am conducting as part of my PhD thesis for a Qualitative Research Study in the School of Public Health and Health System at the University of Waterloo. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

Title of Project: *Exploring the Food Choices of Muslims Arab Immigrants in Canada*

Organizers: Drs. Sue Horton and Rhona Hanning, University of Waterloo, Department of Health Studies and Gerontology.

This interview will be facilitated by Rana Aljaroudi, a PhD candidate at the University of Waterloo.

Participation in this study is voluntary. It will involve an interview of approximately 30 to 60 minutes in length to take place in a mutually agreed upon location and time. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time by advising the researcher. With your permission, the interview will be audio recorded to facilitate collection of information, and later transcribed for analysis. All information you provide is considered completely confidential. Your name or any other personal identifying information will not appear in the thesis resulting from this study; however, with your permission anonymous quotations may be used. Notes and/or tapes collected during this study will be retained for seven years in a secure location and then destroyed. Also (and only if you agree), researcher will keep the interview transcript for the period of 7 years for future research, but they will make sure that the interview transcript will not have your name or information on it. Only researchers associated with this project will have access. There are no known or anticipated risks to you as a participant in this study.

The risks for participation in this study are minimal. Some people may get upset discussing their personal information such as income. If this happens to you, please feel free to skip the questions that you do not want to answer or to stop the interview completely.

This research will not benefit you directly. Conducting this research, I hope to learn more about this topic and to highlight some aspects of the Muslim community such as eating pattern after migration to Canada. The proposed study will help to fill in this gap in the literature by improving our understanding of the relationship between experience of food choices and length of residency in the new environmental context of Arab Muslim immigrants to Canada.

If you have any questions regarding this study or would like additional information to assist you in reaching a decision about participation, please contact me by email at (raljarou@uwaterloo.ca). You can also contact my Supervisor, Dr. Sue Horton, at (519) 888-4567 ext. 33560 or email (sehorton@uwaterloo.ca) or my Co-Supervisor Dr. Rhona Hanning at (519) 888-4567 ext. 35685 or email (rhanning@uwaterloo.ca)

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours. If you have any comments or concerns resulting from your participation in this study, please Dr. Maureen Nummelin, the Director, Office of Research Ethics, at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

I very much look forward to speaking with you and thank you in advance for your assistance in this project.

Yours Sincerely,

Sue Horton

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Rhona Hanning

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Investigator

Rana Aljaroudi

PhD Candidate

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CONSENT FORM
(English version: an Arabic version was used for interviews)

I have read the information presented in the information letter about a study being conducted by **Rana Aljaroudi** of the Department of Health Studies and Gerontology at the University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses.

I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This project has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Committee. I was informed that if I have any comments or concerns resulting from my participation in this study, I may contact the Director, Office of Research Ethics at 519-888-4567 ext. 36005.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

YES NO

I agree to have my interview audio recorded.

YES NO

I agree to the use of anonymous quotations in the project paper.

YES NO

I agree to the use of anonymous quotations in future research projects/publications developed by Drs. Sue Horton, Rhona Hanning and Laurie Hoffman-Goetz myself and/or other students attending this project.

YES NO

I give permission to Drs. Sue Horton, Rhona Hanning and Laurie Hoffman-Goetz to retain the transcript from my interview for up to 7 years and to use it for research purposes as long as it has no identifiable information that ties it to me

YES NO

Participant Name: _____ (Please print)

Participant Signature: _____

Witness Name: _____ (Please print)

Witness Signature: _____

**APPENDIX D: Acculturation Measurement Scale
Male Arab Acculturation Scale (MAAS)**

(English version: an Arabic version was used for interviews)

Item	Strongly disagree	Disagree	Somewhat disagree	Neither agree or Disagree	Somewhat agree	Agree	Strongly agree
I would much prefer to live in an Arab country							
Most of my friends are Arabs							
I behave like a Canadian in many ways							
Generally I feel more comfortable around Canadians than I do around Arabs							
I mix equally well with Canadians and Arabs							
I am equally at ease socializing with Arabs and Canadians							
I have many Arab and Canadian friends							
I have a lot of difficulty making friends							

APPENDIX E: CONFIDENTIALITY STATEMENT

I understand that as an interpreter / transcriber / research assistant (circle one) for a study being conducted by **Rana Aljaroudi** of the Department of Health Studies and Gerontology, University of Waterloo under the supervision of Professor **Sue Horton**, I am privy to confidential information. I agree to keep all data collected during this study confidential and will not reveal it to anyone outside the research team.

Name: _____ Signature: _____

Date: _____ Witness Signature: _____

Note: This was ultimately used only for the transcriber and translator of the 16 interviews.

APPENDIX F: FEEDBACK LETTER
(English version: an Arabic version was used for interviews)

(Department/School logo, name, address)

Project Title: *Exploring the Food Choices of Muslim Arab Immigrants in Canada*

Student Investigator: Rana Aljaroudi, Health Studies and Gerontology, raljarou@uwaterloo.ca

Faculty Advisor: Susan Horton, Department of Economics, sehorton@uwaterloo.ca, (519) 888-4567 ext. 33560

We appreciate your participation in our study and thank you for spending the time helping us with our research!

The purpose of this study is to develop our understanding of how Arab Muslim immigrants to Canada experience change in their food choices. This is an important area to investigate because significant numbers of Arab Muslim immigrants have moved to Canada in recent years, yet this population is arguably understudied. Also, diet can affect health it is in everyone's best interests to help immigrants attain a healthy diet. In this qualitative study, we will ask Arab Muslim immigrant mothers open-ended questions to learn more about the diet of their families.

All information you provided is considered completely confidential; indeed, your name will not be included or in any other way associated, with the data collected in the study. Furthermore, because the interest of this study is in the average responses of the entire group of participants, you will not be identified individually in any way in any written reports of this research. All documents will be kept in either a password protected computer or a locked filing cabinet at the University of Waterloo for 7 years, after which time the researcher will destroy all raw data. Also, all identifying information will be removed from the records prior to storage including the consent forms.

This project has been reviewed by and received ethics clearance through a University of Waterloo Research Ethics Committee. In the event you have any comments or concerns resulting from your participation in this study, please contact Dr. Maureen Nummelin, the Director, Office of Research Ethics, at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

If you think of some other questions regarding this study, please do not hesitate to contact the researcher of this study or her faculty advisor. Also, do not hesitate to contact the researcher if you are interested in obtaining a copy of the results. The results are expected to be available by September 1, 2017.

We really appreciate your participation, and hope that this has been an interesting experience for you.

APPENDIX G: Breakdown of the overall results

Tables contain the breakdown of the overall results of the subscale; the participants' dietary food choices; and demographics summarized from the interviews.

Table 1. Breakdown of overall assimilation, separation, integration, and marginalized subscale results

ID	Length of Stay in Canada	Separation Vs. Assimilation subscale	Integration Vs. Marginalization subscale	Categories	
				Separation Vs. Assimilation	Integration Vs. Marginalization
PA1	13	15	24	Neutral	Neutral
PA2	8	20	20	Separated	Neutral
PA3	18	22	23	Separated	Neutral
PA4	20	13	27	Assimilated	Integrated
PA5	15	13	25	Assimilated	Integrated
PA6	7	22	26	Separated	Integrated
PA7	5	16	18	Separated	Marginalized
PA8	7	19	17	Separated	Marginalized
PA9	5	14	18	Assimilated	Marginalized
PA10	15	16	20	Separated	Neutral
PA11	8	12	23	Assimilated	Neutral
PA12	10	16	23	Separated	Neutral
PA13	5	15	25	Neutral	Integrated
PA14	23	15	26	Neutral	Integrated
PA15	8	15	21	Neutral	Neutral
PA16	5	12	20	Assimilated	Neutral
PA17	16	20	21	Separated	Neutral
PA18	7	21	19	Separated	Marginalized
PA19	12	17	16	Separated	Marginalized
PA20	6	15	25	Neutral	Integrated
PA21	5	16	19	Separated	Marginalized
PA22	8	18	26	Separated	Integrated
PA23	7	19	26	Separated	Neutral
PA24	5	16	21	Separated	Integrated
Mean	9.782608696	16.54166667	22.04166667	-	-
SD		2.977877369	3.290026651	-	-

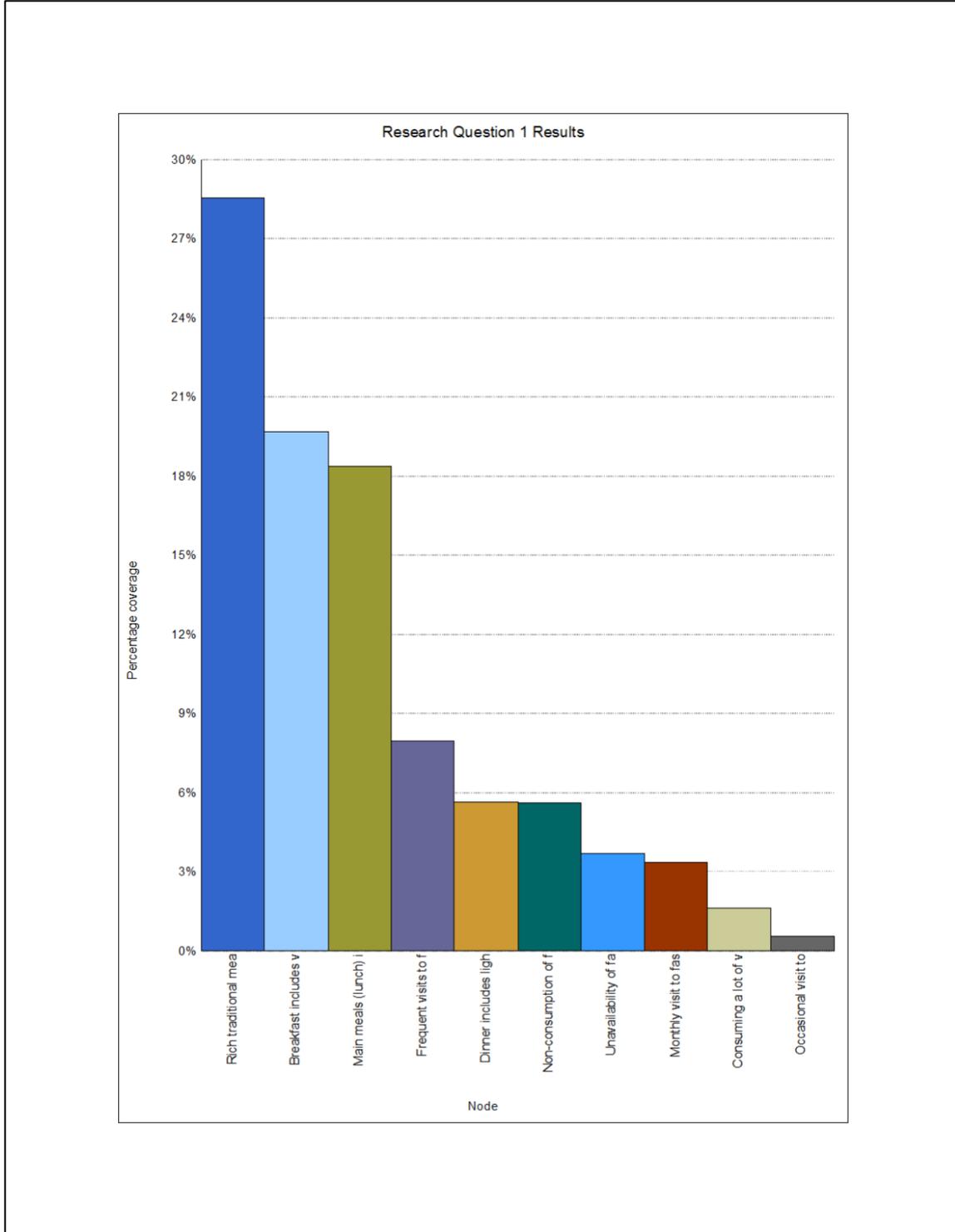
Note: participants 1-12 from Waterloo and 13-24 from Mississauga

Table 2. Breakdown of participant choices

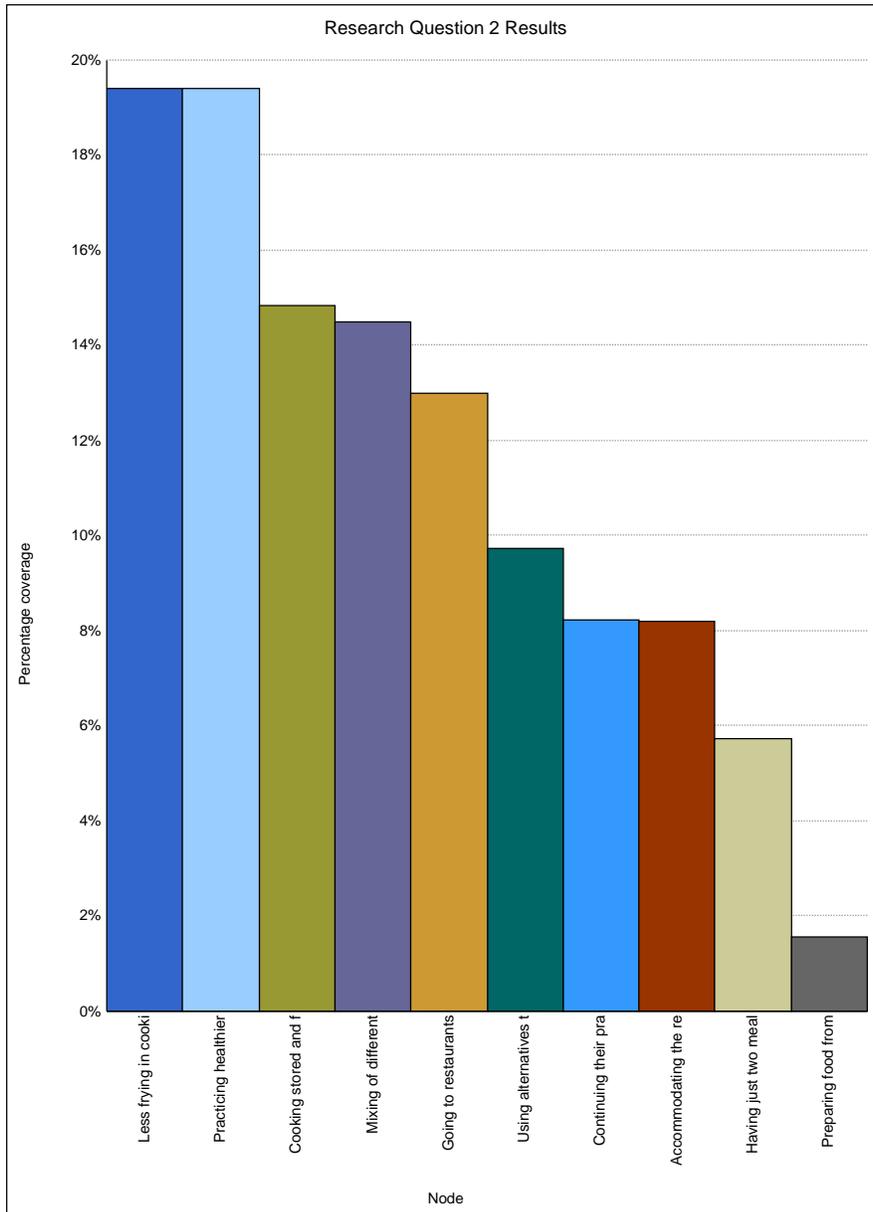
ID	Fast Food/Restaurant Consumption	Frying Habits	Reading food and nutrition labels	Limited or Continued Traditional Food Practice	Impact of Children on Food Practices
PA1	Remained	Remained	No	Continued	Yes
PA2	Remained	Lessened	No	Continued	None
PA3	Increased	Remained	No	Limited	Yes
PA4	Remained	Remained	Yes	Limited	Yes
PA5	Increased	Remained	Yes	Limited	Yes
PA6	Remained	Remained	Yes	Continued	None
PA7	Remained	Lessened	Yes	Continued	Yes
PA8	Remained	Lessened	Yes	Limited	Yes
PA9	Increased	Lessened	Yes	Limited	Yes
PA10	Remained	Lessened	Yes	Continued	None
PA11	Increased	Remained	Yes	Limited	Yes
PA12	Increased	Lessened	Yes	Limited	None
PA13	Remained	Remained	Yes	Continued	None
PA14	Remained	Remained	No	Continued	Yes
PA15	Increased	Remained	Yes	Limited	Yes
PA16	Remained	Remained	Yes	Continued	None
PA17	Increased	Lessened	Yes	Continued	None
PA18	Increased	Lessened	Yes	Continued	None
PA19	Remained	Lessened	No	Continued	Yes
PA20	Increased	Remained	No	Continued	Yes
PA21	Remained	Remained	Yes	Continued	Yes
PA22	Remained	Remained	Yes	Continued	Yes
PA23	Remained	Lessened	Yes	Continued	Yes
PA24	Remained	Lessened	Yes	Continued	None

APPENDIX I: NVivo Charts for Q1, Q2, Q3, Q4 and Q5

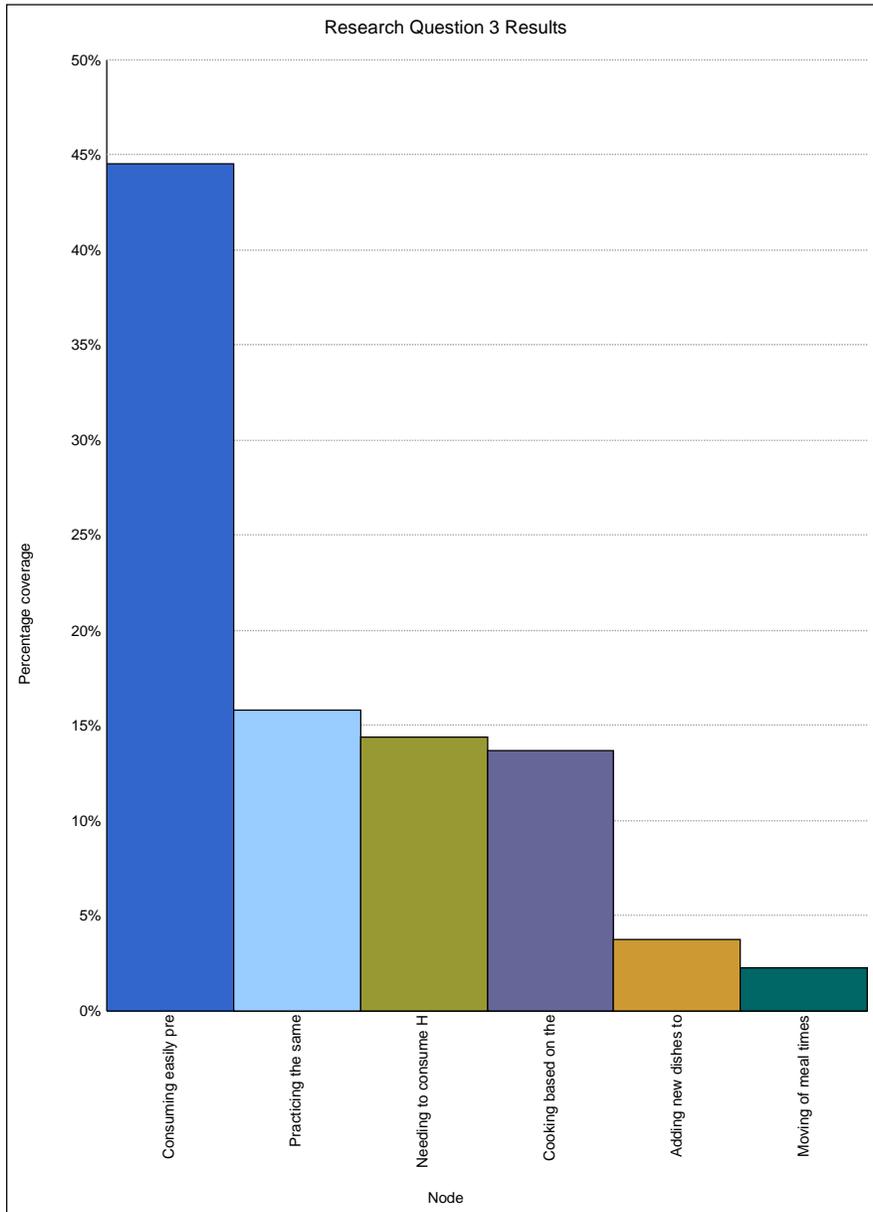
RQ1: What were the self-described dietary habits of Arab Muslims before they migrated to Canada?



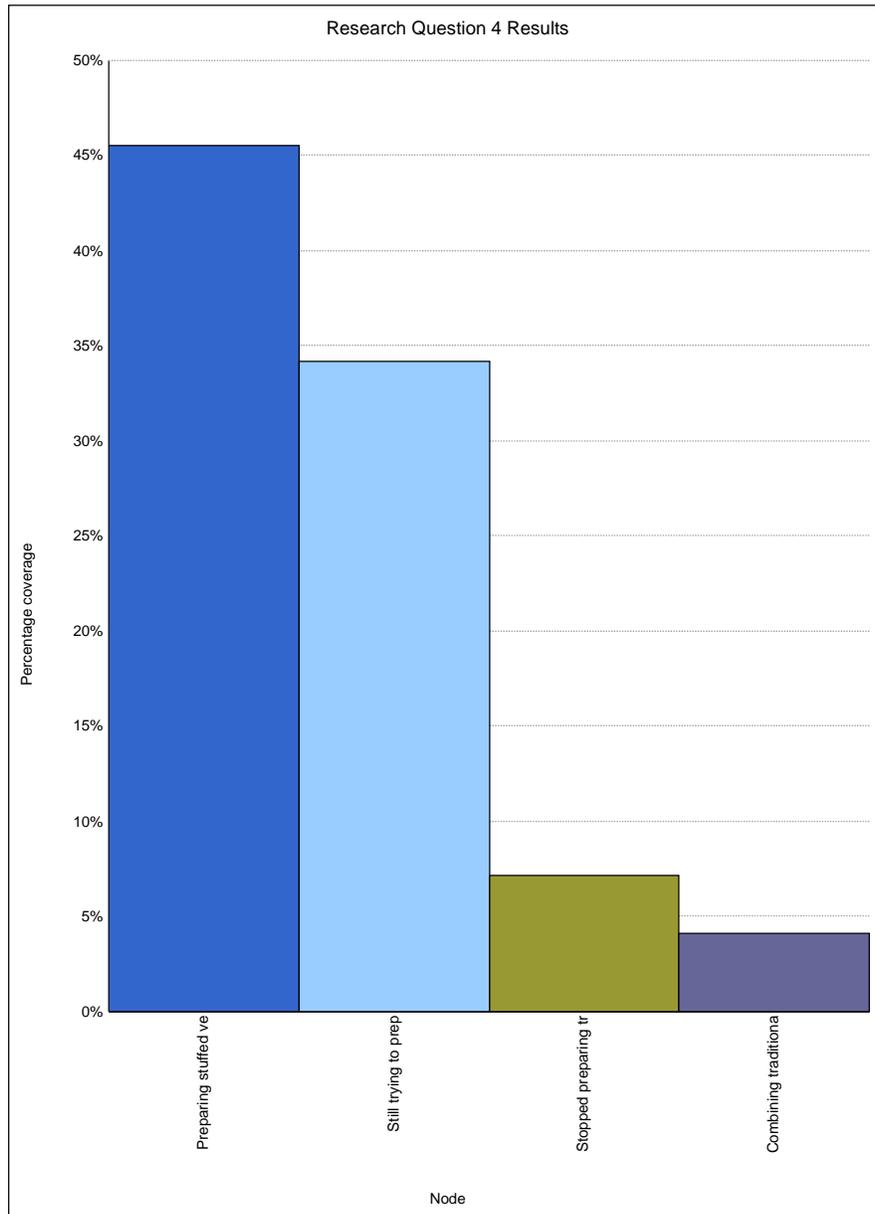
RQ2: What changes have occurred in the diets of Arab Muslims after immigrating to Canada?



RQ3: How do mothers from Arab-Muslim community see/practice daily food preparation upon migrating to Canada?



RQ4: Which traditional foods do Arab Muslims consider to be the most important to keep and why?



RQ5: What challenges do Arab Muslims in Canada report in relation to their food consumption?

